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THE PRESIDENT, HIS ASSASSIN, AND THE COURT-MARTIAL OF SERGEANT JOHN A. MASON

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In February 1882, a general court-martial convened in Washington, D.C., to try Sergeant (SGT) John A. Mason for assault with intent to commit murder. Although not well known today, Mason's court-martial was a cause célèbre and a harbinger of the high-profile cases of today. The details of the case were widely reported on the front pages of newspapers across the country. Hundreds of thousands of people signed petitions asking the president to grant SGT Mason a pardon or clemency. Large sums of money flowed into a fund for his defense and support of his wife and child. Many influential Americans were drawn into the controversies surrounding the court-martial. And the case eventually made it to the Supreme Court of the United States, while defense attorneys battled over who actually represented SGT Mason. More importantly, SGT Mason's court-martial tells us much about the military justice system of the time, how much has changed, and what remains the same 135 years later.

I. Background

A. The President

Although a descendant of a Mayflower passenger,[1] President James A. Garfield was of humble origins. He was the last president born in a log cabin,[2] and his father died when Garfield was an infant.[3] Nevertheless, after leaving home at the age of sixteen to drive dray horses that pulled canal boats along the Ohio and Erie Canal,[4] he acquired an education, eventually

[1] Myra Vanderpool Gormley, *Tracing Lineage of American Presidents*, L.A. Times, July 6, 1989, http://articles.latimes.com/1989-07-06/news/vw-3871_1_american-president.

[2] *James A. Garfield*, WhiteHouse.gov, https://www.whitehouse.gov/1600/presidents/jamesgarfield (citing Frank Freidel & Hugh Sidey, The Presidents of the United States of America (2006)) (last visited Apr. 11, 2017).

[3] *James A. Garfield: Life Before the Presidency*, University of Virgina, Miller Center, http://millercenter.org/president/biography/garfield-life-before-the-presidency (last visited Apr. 15, 2017).

[4] Allan Peskin, Garfield: A Biography 12 (1978).

graduating from Williams College.[5] He became a college classics professor, college president,[6] lawyer,[7] lay preacher, and state senator.[8]

With the outbreak of the Civil War, he was commissioned a lieutenant colonel in the 42nd Ohio Regiment. He fought in several battles, rising to the rank of major general.[9] Garfield "was elected to the United States House of Representatives in November 1862 but stayed with his troops until December, 1863, when the 38th Congress convened."[10] He served nine terms in Congress.[11]

In 1880, the Ohio legislature elected Garfield to fill the Senate seat vacated by John Sherman, who had resigned to become Secretary of the Treasury.[12] Garfield never actually took his Senate seat.[13]

At the 1880 Republican convention, Garfield was Sherman's campaign manager and gave the speech nominating him for the presidency.[14] When the

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[5] *Id.* at 46; Ira Rutkow, James A. Garfield 9 (2006).

[6] *James A. Garfield*, *supra* note 2.

[7] Garfield was one of the team of lawyers who represented the petitioner in *Ex parte Milligan*, 71 U.S. 2, 42 (1866) (holding that a military commission lacked jurisdiction to try Milligan because he was a civilian and the resident of a state in which the civilian courts were open and functioning). *Id.* at 127.

[8] *James A. Garfield*, *supra* note 2; Rutkow, *supra*, note 5, at 15–23.

[9] Rutkow, *supra*, note 5, at 15–23.

[10] *James A. Garfield National Historic Site*, National Park Service, https://www.nps.gov/nr/travel/presidents/james_garfield_lawnfield.html (last visited Apr. 11, 2017); *see* Rutkow, *supra* note 5, at 18–23.

[11] *James A. Garfield*, *supra* note 2.

[12] Margaret Leech & Harry J. Brown, The Garfield Orbit 169 (1978). Until 1917, state legislatures chose U.S. senators. U.S. Const. art. I, § 3, cl. 1. The Seventeenth Amendment provides for direct election of senators by the people of each state. U.S. Const. amend. XVII (ratified Feb. 3, 1913).

[13] *Biography of James Abram Garfield*, U.S. Senate, http://www.senate.gov/artandhistory/art/artifact/Sculpture_21_00011.htm (last visited Apr. 15, 2017); *The Election of President James Garfield of Ohio*, *History, Art & Archives*, U.S. House of Representatives, http://history.house.gov/Historical-Highlights/1851-1900/The-election-of-President-James-Garfield-of-Ohio/ (last visited June 24, 2016).

[14] *The National Convention: Garfield Nominates Sherman*, N.Y. Times, June 7, 1880, at 3. Nevertheless, the *New York Times* had earlier reported at the start of the convention that Senator Garfield was "being prominently talked of as a Presidential candidate. The Sherman people are terribly disgusted with such a proposition." *The Excitement in Chicago*, N.Y. Times, June 1, 1880, at 1.

convention deadlocked, Garfield was selected as the party's nominee on the thirty-sixth ballot.[15] Although the popular vote in the presidential election was close, Garfield won the vote in the Electoral College quite handily, becoming the twentieth President of the United States, the only one ever elected directly from the House of Representatives.[16]

B. The Assassination

On the morning of July 2, 1881, President Garfield was shot by Charles J. Guiteau at the Baltimore & Potomac Railroad Passenger Terminal in Washington, D.C.[17] One bullet grazed the President's arm; the other struck him in the back[18] and remained undetected in the President's body, even after Alexander Graham Bell employed a crude metal detector in an attempt to locate it.[19]

In early September, at the President's insistence, he was moved by train to the shore of the Atlantic Ocean in Elberon, a small community in Long Branch, New Jersey.[20] More than 2,000 laborers laid more than 3,200 feet of rail tracks overnight from the train station to the steps of the Franklyn Cottage so the President would not have to endure the jarring journey

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[15] *James A. Garfield*, *supra* note 2.

[16] "The Election of President James Garfield of Ohio," *supra* note 13. The vote in the electoral college was 214 for Garfield, 155 for Hancock. *Presidential Election of 1880: A Resource Guide*, Library of Congress http://loc.gov/rr/program/bib/elections/election1880.html (last visited Apr. 11, 2017).

[17] *The President Shot*, Evening Star (Washington, D.C.), July 2, 1881, at 1. Except for articles from the *Los Angeles Times*, *Washington Post*, and *New York Times*, all cited newspapers may be found at Library of Congress: Chronicling America: Historic American Newspapers, http://chroniclingamerica.loc.gov (last visited Apr. 2017).

[18] James C. Clark, The Murder of James A. Garfield 58 (1993); Rutkow, *supra* note 5, at 83.

[19] Rutkow, *supra* note 5, at 118; Alexander Graham Bell, *Upon the Electrical Experiments to Determine the Location of the Bullet in the Body of the Late President Garfield: And upon a Successful Form of Induction Balance for the Painless Detection of Metallic Masses in the Human Body* 4 (1882), Internet Archive https://ia600402.us.archive.org/32/items/uponelectricalex00bell/uponelectricalex00bell.pdf (last visited Apr.11, 2017). After a post-mortem examination, Bell attributed the failure of his "induction balance" machine to detect the bullet to the depth of the bullet within President Garfield's body. *Id.* at 33 n.2.

[20] Candice Millard, Destiny of the Republic: A Tale of Madness, Medicine & the Murder of a President 49 (2011); Clark, *supra* note 18, at 103. Charles G. Franklyn, an Englishman who had never met Garfield, offered this twenty-room cottage in Elberon for the President's use. Clark, *supra* note 24, at 103.

by carriage.[21] President Garfield lingered in agony for eleven long weeks. Although the bullets failed to wound any vital organ, on September 19, the 49-year-old President succumbed due to infection, as "the inability of the doctors to find and remove one of the bullets and their continually probing the wounds with unsterilized hands and instruments led to infection."[22] Joseph Lister's protocols for antiseptic surgery were known in the United States but few American doctors, and certainly not Garfield's, believed there was a link between those protocols and infection.[23]

C. The Assassin

The shooter, Charles J. Guiteau,[24] an incompetent lawyer and former utopian,[25] had deluded himself into believing that he was largely responsible for Garfield's victory in the election of 1880.[26] The Garfield administration had rebuffed his requests to be appointed as ambassador to Vienna or Paris.[27] In response, Guiteau purchased a large-caliber revolver, which he hoped a museum would display after the assassination, and stalked Garfield on at least four occasions before shooting him on July 2, 1881.[28]

A policeman apprehended Guiteau at the terminal immediately after the shooting. Guiteau was taken to police headquarters and then to the District jail.[29] Earlier in the week, Guiteau had visited the jail, anticipating that he

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[21] *Taken from Washington: The Arrival at Elberon*, N.Y. Times, Sept. 7, 1881, at 1; Millard, *supra* note 20, at 226; Clark, *supra* note 18, at 104.

[22] Rutkow, *supra* note 5, at 28; *see* Jason Emerson, Giant in the Shadows: The Life of Robert T. Lincoln 232 (2012); Kenneth D. Ackerman, Dark Horse: The Surprise Election and Political Murder of President James A. Garfield 439 (2003); Clark, *supra* note 18, at 112–13.

[23] Rutkow, *supra* note 5, at 104–09.

[24] Clark, *supra* note 22, at 11–12.

[25] *See id.* at 4–8, 21; Millard, *supra* note 20, at 9.

[26] Clark, *supra* note 18, at 39–40; Millard, *supra* note 20, at 94–97.

[27] Clark, *supra* note 18, at 33, 38–40

[28] H. H. Alexander, The Life of Guiteau and the Official History of the Most Exciting Case on Record: Being the Trial of Guiteau for Assassinating Pres. Garfield 54–56 (1882), Internet Archive https://archive.org/details/lifeofguiteauoff00alex (last visited Apr. 11, 2017).

[29] *Slowly Recovering*, Nat'l Republican (Washington, D.C.), July 4, 1881, at 1. The jail was located at the corner of 19th and C Streets, SE. J. Walker Mitchell, *Looking Backward*, Wash. Herald, Sept. 29, 1918, at 8.

would be arrested after killing the President; he found its accommodations excellent.[30]

D. Attempt on the Assassin's Life

The Commanding General of the Army, William Tecumseh Sherman, ordered the 2d Artillery, U.S. Army, to guard the jail in which Guiteau was held,[31] apparently in violation of the Posse Comitatus Act of 1878, which prohibited the use of the Army "for the purpose of executing the laws, except in such cases as may be expressly authorized by the Constitution or by act of Congress."[32] In August, after reports that the President's condition had worsened, rumors of possible attacks on the prison housing Guiteau surfaced. To a reporter who asked if the guards would not give way and let the crowds take Guiteau from his cell, Colonel Romeyn B. Ayres,[33] commanding officer of the 2nd Artillery, replied:

> Those who have such ideas will be sadly mistaken, and while I should deeply regret the death of a single man in such a cause, yet my orders are imperative, and as I am a soldier, they will be obeyed. Guiteau is a prisoner of the United States Government. He is confined within a United States jail. The Constitution and laws guarantee him a fair trial. This is the Capital of the Nation, the head center of law and order. The Government has determined that no mob law shall reign here, and I have been directed to protect the prisoner and United States property, and you may rest assured that it will be done.[34]

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[30] Ackerman, *supra* note 22, at 65 (2003); Clark, *supra* note 18, at 50; *Guiteau's History*, Nat'l Republican, July 4, 1881, at 3.

[31] *Guiteau in Jail*, Evening Star, July 6, 1881, at 1. John Clark Ridpath, The Life and Trial of Guiteau the Assassin 22 n.* (1882).

[32] Act of June 18, 1878, 20 Stat. 152 (1878), now 18 U.S.C. § 1385 (2012). Despite the general prohibition under the Posse Comitatus Act, Congress authorized the use of the military to aid in executing the laws of the United States in some special cases. For example, the President could authorize the use of land forces "in arresting persons offending against the laws for the protection of civil rights." *See* William Winthrop, Military Law and Precedents 867 (2d ed. 1920). It does not appear, however, that Congress authorized the military to guard the President's assassin.

[33] Ayres was actually a colonel but was often referred to in the press as a major general, the brevet rank to which he had been temporarily promoted during the Civil War. Arlington National Cemetery Website: http://www.arlingtoncemetery.net/rbayers.htm (last visited Apr. 21, 2017).

[34] Ridpath, *supra* note 31, at 22–23.

Late on Sunday afternoon, September 11, 1881, the sky over Washington, D.C., turned a dense black, foretelling the heavy rain and high winds that would follow.[35] That evening, in the rain and wind, Company B was transported to the prison in three wagons to relieve the day guards.[36] SGT Mason, first sergeant for Company B, was in the lead wagon with his company commander, Captain (CPT) John McGilvray.[37] Upon arrival at the prison, SGT Mason took up a position and fired a bullet into the window "that looks up to the window of Guiteau's cell."[38] As CPT McGilvray approached, SGT Mason admitted shooting at Guiteau: "I fired the shot, Captain, and I intended to kill the scoundrel. I did not enlist to guard an assassin."[39] Guiteau was not wounded.[40] SGT Mason was taken into custody and returned to the Washington Barracks, where he was placed in the guardhouse.[41]

At the time, military law provided that enlisted men "charged with crimes shall be confined until tried by court-martial, or released by proper authority."[42] But the law did not envision a lengthy period of pretrial confinement: "No officer or soldier put in arrest shall be continued in confinement more than eight days, or until such time as a court-martial can be assembled."[43] Today, under the Uniform Code of Military Justice (UCMJ), a military member may only be placed in pretrial confinement if there is "a reasonable belief that the military member committed an offense triable by court-martial, the person to be restrained committed that offense, and the pretrial confinement is required by the circumstances.[44] "[I]mmediate steps shall be taken to inform [the detainee] of the specific wrong of which he is accused and to try him or

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[35] *Gunning for Guiteau*, Wash. Post, Sept. 12, 1881, at 1.

[36] *Guiteau Shot At*, Nat'l Republican, Sept. 12, 1881, at 1; *An Attempt to Kill Guiteau*, N.Y. Times, Sept. 12, 1881, at 1.

[37] *Guiteau Shot At*, *supra* note 36, at 1.

[38] *Id.*

[39] *Id.*; *An Attempt to Kill Guiteau*, *supra* note 36, at 1. At the time, President Garfield was still alive.

[40] *Guiteau Shot At*, *supra* note 36, at 1

[41] *Id.* The Washington Barracks, also known as the Washington Arsenal, is now Fort Lesley J. McNair.

[42] Article of War 66 (1874).

[43] Article of War 70 (1874).

[44] Rule for Court-Martial (R.C.M.) 305(c).

to dismiss the charges and release him."[45] Within seven days, a neutral and detached officer must review that probable cause determination.[46]

E. SGT Mason

SGT Mason was born Charles B. Mason into a Spotsylvania County, Virginia, farm family on May 15, 1845,[47] but his family moved to Ohio when he was five years old.[48] He claimed he was "a distant relative to Senator James M. Mason of the Confederate States, whose capture aboard a British mail packet caused an international incident with Great Britain, during the Trent Affair."[49] SGT Mason's schooling must have been limited, as he did not learn to write until after he joined the Army.[50] On January 6, 1862, at the age of sixteen years, SGT Mason enlisted in Company D, 78th Ohio Infantry, which was assigned to the 2nd Brigade, 3rd Division, 17th Army Corps, in the Union Army.[51] SGT Mason fought in the battles of Fort Donelson, Shiloh, Corinth, Iuka, and Raymond.[52] While fighting in Mississippi, he

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[45] Article 10, UCMJ, 10 U.S.C. § 810 (2012).

[46] R.C.M. 305(i)(2).

[47] Hardesty's Historical and Geographical Encyclopedia: Special Virginia Edition 430 (1884).

[48] *Sergeant Mason*, Evening Star, Sept. 13, 1881, at 1; FamilySearch, https://familysearch.org/ark:/61903/1:1:MX34-BGP (citing U.S. Census 1850) (last visited May 30, 2016), reporting that Charles Mason lived in the household of James W. Mason, Meigs, Muskingum, Ohio, United States.

[49] *Sergeant Mason Who Attempted to Shoot Guiteau*, Staunton Spectator (Virginia), Sept. 20, 1881, at 2. James Mason and Charles Slidell were Confederate diplomats who had escaped through the Union blockade at Charleston, South Carolina, and sailed to Havana, Cuba, where they boarded the British mail packet *RMS Trent* bound for Britain and France in an effort to obtain diplomatic recognition for the Confederate States and military and financial support for the cause. Their ship was intercepted by an American ship, the *USS San Jacinto*, and the diplomats were removed and imprisoned in Boston, causing an international incident with Great Britain over freedom of the seas. The British government demanded release of the diplomats and an apology. The crisis was resolved when Secretary of State William Seward faulted the captain of the *San Jacinto* for acting without authorization and had the diplomats released. The Lincoln administration never formally apologized. Stephen Howarth, To Shining Sea: A History of the United States Navy, 1775–1991, 186–87 (1991); James F. Simon, Lincoln and Chief Justice Taney: Slavery, Secession, and the President's War Powers 209–10 (2006).

[50] *Sergeant Mason on Trial*, Evening Star, Feb. 20, 1882, at 1.

[51] Hardesty's, *supra* note 47, at 430; *Sergeant Mason*, *supra* note 48, at 1.

[52] Hardesty's, *supra* note 47, at 430.

"was accidentally shot by his own rifle."[53] He was captured by Confederate forces at Raymond Mississippi, in May 1863, and was held as a prisoner of war until July, 1864.[54] He was discharged as a private on January 6, 1865, at Indianapolis, Indiana.[55]

SGT Mason reenlisted in the regular army in July 1866, at Fredericksburg, Virginia, under the name of John A. Mason.[56] He married Bettie Mason in 1879 and their first child, Charles F., was born in November 1880.[57]

SGT Mason was assigned to the Washington Barracks. He traveled to Fort McCavitt, Texas, on June 18, 1881, to appear as witness at a court-martial.[58] He first heard of the attempt on President Garfield's life from a train conductor as he returned from Texas, on July 2.[59] It was on the train home that he resolved to kill Guiteau, if he ever had the opportunity to do so.[60] When he arrived back in Washington, his unit had been deployed to guard the White House, but shortly thereafter they were detailed for guard duty at the jail where Guiteau was being held. SGT Mason deferred his attempt to kill Guiteau until after he was paid and had an opportunity to pay some bills and send money to his family.[61]

II. Awaiting Trial

A short time after SGT Mason was confined in the guardhouse, he was awakened, taken out of his cell, and interviewed by a reporter, to whom he stated:

> I have been very much worried in regard to going out to the jail every day. It was rough on officers and soldiers to be attending as guards. I got tired of it. This evening we went

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[53] *Sergeant Mason's Trial*, Nat'l Republican, Mar. 1, 1882, at 1 (citing a stipulation of expected testimony of MAJ Robinson concerning SGT Mason's service during the Civil War).

[54] Hardesty's, *supra* note 47, at 430.

[55] *Id.*

[56] Hardesty's, *supra* note 47, at 430; *Sergeant Mason*, *supra* note 48, at 1.

[57] Hardesty's, *supra* note 47, at 430. The press often spelled her name "Betty."

[58] *Sergeant Mason*, *supra* note 48, at 1.

[59] *Id.*

[60] *Id.*

[61] *Id.*

> out in the rain. When we got to the jail I got out of the wagon and went around the corner. I loaded my gun with a forty-five caliber, and blazed away into the jail window, and I hope to God I hit him. When I shot I meant to kill him, and I am sorry if I didn't do so. I had it on my mind for the last week. He had shot a good man, the President of this great Nation, and I thought it was my duty to kill him. It wasn't worthwhile for officers and soldiers to go to guard him—this man—*thing*, or whatever he is. I would rather have killed Guiteau than to have $10,000. If it had been a clear day I would have killed him. That is all I have to say. Good night.[62]

On September 12th, SGT Mason told the press that he was perfectly sane and that he would have been willing to spend the rest of his life in jail if he had succeeded in killing Guiteau.[63]

Some military members tried to excuse SGT Mason's conduct, asserting "that his exposure to the sun while on guard at the jail has affected his brain."[64] His company commander claimed SGT Mason had been sick for a number of days and had taken a large quantity of strong medication.[65]

Enlisted men regretted that SGT Mason had failed, while the officers were gratified that he had missed, "as they considered it would have disgraced the Army."[66] In their eyes, SGT Mason's actions weakened the public's belief in the Army's claims that it would vigorously resist any attempt to get to Guiteau.[67]

Nevertheless, there was a public outpouring of support for SGT Mason. Letters to the editors of newspapers and a petition in the Post Office department supported his promotion, and funds were solicited to pay for his attorney.[68] The *Washington Post* was not sympathetic to this view. The *Post*

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[62] *Guiteau Shot At*, *supra* note 36, at 1.

[63] *The Attempt to Kill Guiteau*, N.Y. Times, Sept. 13, 1881, at 1.

[64] *Gunning for Guiteau*, supra note 35, at 1.

[65] *Guiteau Shot At*, *supra* note 36, at 1.

[66] *Gunning for Guiteau*, Wash. Post, supra note 35, at 1. *See also The Assassin: Mason's Attempt on Guiteau Regarded as a Disgrace by the Army*, Memphis Daily Appeal (Tennessee), Sept. 13, 1881, at 2.

[67] *Gunning for Guiteau*, Wash. Post, supra note 35, at 1.

[68] *Sergeant Mason*, *supra* note 48, at 1; Editorial, Evening Critic (Washington, D.C.),

viewed SGT Mason's act as one "that no law-abiding people can afford to glorify—an act that we have no hesitation in saying President GARFIELD himself would be swift to condemn."[69]

Even General Sherman weighed in. In a letter to the editor he expressed his frustration with the tenor of the times.

> For this man Guiteau I ask no soldier, no citizen to feel one particle of sympathy. On the contrary could I make my will the law, shooting or hanging would be too good for him. But I do ask every soldier and every citizen to remember that we profess to be the most loyal Nation on earth to the sacred promises of the law. There is no merit in obeying an agreeable law, but there is glory and heroism in submitting gracefully to an oppressive one. Our constitution reads: "No person shall be held to answer for a capital or otherwise infamous crime unless on a presentment or indictment of a grand jury," and "in all criminal prosecutions the accused shall enjoy the right to a speedy and public trial by an impartial jury of the State and district wherein the crime shall have been committed." This is the solemn contract of Government binding on the consciences of all. Should our President die the murderer is entitled to a speedy trial by a jury, and I hope he will have justice done him.
>
> But it is not my office or yours or anybody's except the regular courts of this District, which are and in undisputed power. Violence in any form will bring reproach on us all—upon the country at large, and especially on us of the District of Columbia.
>
> All the circumstances of the shooting, of the long heroic struggle for life, impress me so strongly that I would be ashamed of my countrymen if they mingled with their feelings of grief any thought of vengeance. "Vengeance is mine, saith the Lord."

Sept. 12, 1881, at 2; *Making a Hero of Mason*, N.Y. TIMES, Sept. 14, 1881, at 1.

[69] *The Law and Nothing but the Law*, WASH. POST, Sept. 14, 1881, at 2.

> I trust the public press will use its powerful influence to maintain the good order and decorum which have prevailed since the saddest of all days in Washington, July 2, 1881.
>
> Sincerely your friend
> W.T. Sherman.[70]

The question of jurisdiction over SGT Mason and his offense arose almost immediately after his apprehension. The United States Attorney for the District of Columbia, George B. Corkhill, claimed that he would not take any action until he was officially notified by the War Department, while the War Department suggested it would not take action against SGT Mason but rather turn him over if requested by the civilians.[71] At the time, a provision of the Articles of War required the commanding officer and officers of any unit to which an accused was assigned, upon application made by or on behalf of a victim of

> a capital crime or of any offense against the person or property of any citizen of any of the United States…to use their utmost endeavors to deliver him over to the civilian magistrate, and to aid the officers of justice in apprehending him and securing him, in order to bring him to trial.[72]

On September 13th, Mr. J.G. Bigelow,[73] a civilian attorney representing SGT Mason, visited Mr. Corkhill and asked him to claim SGT Mason from the military. Mr. Corkhill, a veteran of the Civil War,[74] apparently declined to do so.[75] Capt. McGilvrary preferred a charge of engaging in conduct prejudicial to good order and military discipline against SGT Mason on September 13th and forwarded it to Major General (MG) William Scott Hancock, the

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[70] W.T. Sherman, *Letter to the Editor*, Nat'l Republican, Sept. 24, 1881, at 4.

[71] *Sergeant Mason's Shot: Nothing Serious Expected as a Result*, Wash. Post, Sept. 13, 1881, at 1.

[72] Article of War 59 (1874). The current provision is found in Article 14(a), UCMJ, 10 U.S.C. § 814(a) (2012).

[73] SGT Mason addressed his attorney as General Bigelow. *See, e.g.*, *Sergeant Mason*, Evening Critic, Feb. 20, 1882, at 1; *Sergeant Mason's Case*, Wash. Post, Mar. 28, 1882, at 4. It is unclear whether Bigelow had been in the military or this was an honorary title. For convenience, he will be addressed as Mr. Bigelow.

[74] *George B. Corkhill Dead*, N.Y. Times, July 7, 1886, at 1.

[75] *The Assassin: Sergeant Mason Still in Custody*, Memphis Daily Appeal, Sept. 13, 1881, at 2.

commander of the Department of the East, the general court-martial appointing authority, headquartered at Governor's Island, New York.[76] Still, many considered it doubtful that SGT Mason would face a court-martial.[77]

On September 19, the son of the assassinated President Abraham Lincoln, Secretary of War Robert Todd Lincoln, who had been at the train station when President Garfield was shot,[78] answered questions concerning SGT Mason that were summarized in the *New York Times*:

> In regard to Mason, the military law would take its regular course, and Mason would undoubtedly be tried by court-martial. Such court-martial would properly be ordered by the Colonel of the regiment to which Mason belonged, for the offense was a serious one—too plain a breach of discipline to be overlooked. The penalty which might be imposed, after a finding of guilty, was within the discretion of the officer ordering the court-martial. The sentence would be subject to revision and modification, however, by the Secretary of War or his superior, the President.[79]

On September 21, 1881, two days after President Garfield died and ten days after the prison shooting, MG Hancock referred one specification, alleging SGT Mason violated Article of War 62, to trial.[80] The statute, the forerunner to the current Article 134, UCMJ,[81] provided:

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[76] *Sergeant Mason*, *supra* note 48, at 1; *A New Court-Martial*, Wash. Post, Sept. 15, 1881, at 2; *Who Will Try Mason?*, Wash. Post, Sept. 16, 1881, at 2.

[77] *Who Will Try Mason?*, *supra* note 76, at 2.

[78] Emerson, *supra* note 22, at 100. Contrary to popular myth, Robert Todd Lincoln was not an eyewitness to the shootings of Presidents Abraham Lincoln, Garfield, and William McKinley. He had begged off going to the theater the night his father was shot and remained at the White House. *Id.* He did not see Guiteau shoot President Garfield, although he was only about forty feet away, heard the shots, and rushed to the president's aid. *Id.* 232. Lincoln arrived in Buffalo, New York, with his family to attend the Pan-American Exposition on September 6, 1901, only to discover that President McKinley had been shot the previous day. *Id.* at 357–58.

[79] *A Talk with Secretary Lincoln*, N.Y. Times, Sept. 20, 1881, at 5.

[80] *The Case of Sergeant Mason*, Nat'l Tribune (Washington, D.C.), Feb. 18, 1882, at 1. At the time, what we now call convening authorities were known as appointing authorities. *See* Article of War 72 (1874) (reprinted in Winthrop, *supra* note 32, at Appendix XIII).

[81] By contrast with its forerunner, the current version of UCMJ, Article 134, 10 U.S.C. § 934 (2012), provides:

> All crimes not capital and all disorders and neglects which officers and soldiers may be guilty of to the prejudice of good order and military discipline, though not mentioned in the foregoing Articles of War are to be taken cognizance of by a general or a regimental garrison or field officers court-martial, according to the nature and degree of the offence and punished at the discretion of such court.[82]

The specification alleged that, in violation of the 62d Article of War, SGT Mason,

> having been ordered with his Battery, from Washington Barracks for guard duty at the United States jail, in the city of Washington D.C., and having arrived at said jail, for said duty did, thereupon, with intent to kill Charles J. Guiteau, a prisoner then confined under the authority of the United States in said jail, willfully and feloniously discharge his musket loaded with ball cartridge, at said Guiteau, through a window of said jail into the cell then occupied by the said Guiteau. This at the District jail, Washington, D.C., on or about September 11, 1881.[83]

This specification reads more like a civilian indictment than a specification alleged under the UCMJ. Today, SGT Mason would likely be charged with attempted premeditated murder, a violation of Article 80, which would be alleged, as follows:

> In that [SGT Mason] did, on or about September 11, 1881, in Washington, D.C., with premeditation, attempt to murder Charles J. Guiteau by shooting at him with a rifle.

> Though not specifically mentioned in this chapter, all disorders and neglects to the prejudice of good order and discipline in the armed forces, all conduct of a nature to bring discredit upon the armed forces, and crimes and offenses not capital, of which persons subject to this chapter may be guilty, shall be taken cognizance of by a general, special, or summary court-martial, according to the nature and degree of the offense, and shall be punished at the discretion of that court.

[82] 18 Stat. 236 (1874).

[83] *See* J.G. Bigelow, Review of the Case of Sergeant John A. Mason, of Battery B, 2d U.S. Artillery, Convicted by General Court-Martial of an Assault with Intent to Kill Chas. J. Guiteau, the Assassin 1 (1882).

In 1881, however, charging attempted premeditated murder was not possible, as murder was a cognizable offense under the Articles of War only "[i]n time of war, insurrection, or rebellion."[84] Therefore, the Army was left to try him under Article of War 62 or turn him over to civil authorities for trial.

The court-martial was scheduled to begin September 28, but was indefinitely suspended by MG Hancock, initially at least, due to the special duties assigned to witnesses in the centennial celebration of the Battle of Yorktown.[85]

III. Guiteau's Trial

On October 14, 1881, Guiteau was taken to court, where the district attorney announced that the prisoner had been indicted for the murder of James A. Garfield, and asked that he be arraigned.[86] Guiteau pled not guilty. Although represented by counsel, he personally advised the court, from a writing he produced from a pocket, that his defense was threefold: (1) insanity; (2) the president died from medical malpractice; and (3) the President died in New Jersey, beyond the jurisdiction of the court in the District of Columbia.[87] The trial began a month later and lasted 54 days in a courtroom full of spectators who had to obtain tickets for admission personally signed by U.S. District Attorney Corkhill.[88] The jury returned the guilty verdict against Guiteau on January 25, 1882, a month before SGT Mason's trial began. With his appeals exhausted, Guiteau was hanged on June 30, 1882, at the District jail.[89]

IV. The Court-Martial

The original September 21, 1881, convening order was amended on February 13, 1882, appointing new members and setting the trial for February 20.[90] By statute, the proceedings of courts-martial could be held only between the hours of "eight in the morning and three in the afternoon, excepting in cases which, in the opinion of the officer appointing the court,

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[84] *See* Article of War 58 (1874).

[85] *Army and Navy News*, N.Y. Times, Sept. 28, 1881, at 5.

[86] *Guiteau in Court*, Evening Star, Oct. 14, 1881, at 1.

[87] Clark, *supra* note 18, at 16; Millard, *supra* note 20, at 239.

[88] Clark, *supra* note 18, at 121–22; Ackerman, *supra* note 22, at 443–44.

[89] Ackerman, *supra* note 22, at 444; Millard, *supra* note 20, at 244.

[90] *Trial of Sergeant Mason*, Wash. Post, Feb. 16, 1882, at 2.

require immediate example."[91] Although commentators have suggested a few reasons for limiting the hours of trial, the main reason appears to have been providing time for the trial judge advocate—in most cases there was no professional court reporter—to prepare the record of each day's court sessions.[92] So, it was the custom to begin each day's session by reading the record of the previous day's proceedings to insure accuracy.[93]

SGT Mason's court-martial convened at 11:00 a.m., at the Washington Army barracks on Monday, February 20, 1882, an hour late, because some of the court members went to the Marine barracks by mistake.[94] While awaiting the start of the proceeding, SGT Mason complained to one reporter that he had been confined to the guardhouse for 161 days "for shooting at the man who assassinated the head of the nation."[95] "[I]t fairly made my heart bleed to have to act as a policeman and stand guard over the wretch who killed President Garfield."[96] He said that he didn't "expect to get off on the insanity dodge," and that he was "willing and ready to stand trial and take the consequences, whatever that might be."[97] SGT Mason reported that he had told the judge advocate he was willing to plead guilty but that his attorney, Mr. Bigelow, had "interfered" and proposed he plead not guilty.[98] SGT Mason said he wanted the trial over because he did not think he could manage another 160 days in his cell.[99]

At the time, a general court-martial could consist of between five and thirteen members; however, the panel could not consist of fewer than thirteen officers "when that number can be convened without manifest injury to the service."[100] SGT Mason's court-martial consisted of eleven officers, from the rank of lieutenant colonel down to lieutenant, plus a judge advocate,[101]

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[91] Article of War 94 (1874), *reprinted in* WINTHROP, *supra* note 32, at 994.

[92] WINTHROP, *supra* note 32, at 281.

[93] *Id.* at 288.

[94] *Sergeant Mason on Trial: The Court-martial Organized*, EVENING STAR, Feb. 20, 1882, at 1.

[95] *Sergeant Mason*, *supra* note 73, at 1. Mr. Bigelow had appealed to BG Ayres, to provide better quarters for SGT Mason but without success. *Id.*

[96] *Id.*

[97] *Id.*

[98] *Id.*

[99] *Id.*

[100] Article of War 75 (1874).

[101] *Sergeant Mason*, *supra* note 73, at 1.

who functioned as prosecutor[102] and advisor to the court-martial.[103] Had SGT Mason not been represented by civilian counsel, the judge advocate would also have been responsible for counseling or advising the accused, in a general manner.[104]

There was no trial judge; trial judges did not appear in military law until 1969.[105] SGT Mason did not have the right to enlisted members on the court panel; an enlisted member did not have a right to have enlisted court members until enactment of the Elston Act of 1948.[106] Except for death sentences which required the concurrence of two-thirds of the court members,[107] all other issues before a court-martial were determined by a simple majority.[108]

"The officers wore full dress uniforms with badges mourning for the late President, the sixth month period of mourning not having expired."[109] Writing materials were provided to them.[110]

SGT Mason was brought before the court-martial and stood "while the [judge advocate] read the various orders under which the court assembled."[111] When asked if he objected to any member of the court, SGT Mason answered that he did not.[112] He was limited to challenges for cause; peremptory challenges were not recognized.[113] Had he challenged a member there would have

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[102] Winthrop, *supra* note 32, at 190.

[103] *Id.* at 194.

[104] *Id.* at 196; George B. Davis, A Treatise on the Military Law of the United States 36 (2d ed. 1909). Article of War 90 (1874) provided:

> The judge advocate, or some person deputed by him, or by the general or officer commanding the army, detachment, or garrison, shall prosecute in the name of the United States, but when the prisoner has made his plea, he shall so far consider himself counsel for the prisoner as to object to any leading question to any of the witnesses, and to any question to the prisoner the answer to which might tend to criminate himself.

[105] Pub. L. 90-632, § 2(9), 82 Stat. 1336 (1968).

[106] Act of June 24, 1948, ch. 625, tit. II, § 203, 62 Stat. 604, 628 (1948).

[107] Article of War 96 (1874).

[108] Winthrop, *supra* note 32, at 172.

[109] *Sergeant Mason on Trial: The Court Opened*, Evening Star, Feb. 20, 1882, at 1.

[110] *Id.*; *Sergeant Mason's Trial*, Wash. Post, Feb. 21, 1882, at 2.

[111] *Sergeant Mason on Trial: Sergeant Mason Was Brought In*, Evening Star, Feb. 20, 1882, at 1.

[112] *Id.*; *Sergeant Mason's Trial*, *supra* note 110, at 2.

[113] Article of War 88 (1874).

been a hearing on the challenge, after which the member would have been able to attend the closed session deliberations on the challenge, although he was barred from participating in the discussion.[114]

The judge advocate swore the members of the court, and the president swore the judge advocate.[115] SGT Mason advised the court-martial that he had counsel, and only then was Mr. Bigelow brought into the courtroom.[116] At the time, it was unsettled as to when counsel for the accused should be admitted.

> Hughes fixes the proper time for such application as after the plea; DeHart as after the court has been sworn, though he adds the privilege "may be allowed at any time." It is obvious that, prior to the organization of the court, counsel may be of material assistance to the accused in the presenting of objections to the authority of the court to proceed with the trial, and in offering and maintaining of challenges: it is at this early stage, therefore, that counsel will most advantageously be admitted.[117]

Once admitted to the proceedings, Mr. Bigelow requested a "plat of the front of the jail" so that he could show it was impossible for SGT Mason to have committed the crime charged.[118] The judge advocate noted that he had drawn a sketch of the prison and he thought the court would want to visit the location later in the trial.[119] Nevertheless, the court ordered the judge advocate to "'procure from the Supervising Architect of the Treasury a tracing of the front elevation of the jail, and of the plan of the first floor, where Guiteau's cell was located when Sergeant Mason is alleged to have fired at the assassin.'"[120]

There was discussion concerning the obtaining of a court reporter but the president of the court stated that one could not be obtained in the local

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[114] Winthrop, *supra* note 32, at 211–12.

[115] *Sergeant Mason's Trial*, *supra* note 110, 1882, at 2.

[116] *Id. Sergeant Mason on Trial: The Prisoner's Counsel*, Evening Star, Feb. 20, 1882, at 1.

[117] Winthrop, *supra* note 32, at 165 (footnotes omitted).

[118] *Sergeant Mason on Trial: The Prisoner's Counsel*, *supra* note 116, at 1.

[119] *Id.*

[120] *Sergeant Mason*, Nat'l Republican, Feb. 21, 1882, at 1.

area for the $10 authorized by statute.[121] The court eventually ordered the judge advocate to telegraph to Buffalo to get a stenographer, who apparently had requested appointment for the statutory rate.[122]

The judge advocate read the specification and charge.[123] When asked to enter a plea, SGT Mason answered: "'I make no plea, sir.'"[124] The President of the court ordered the judge advocate to enter a plea of not guilty into the record.[125] The court was adjourned until noon the next day.[126]

Before being returned to his cell, SGT Mason spoke to reporters, complaining about the conditions of his confinement—rats in his cell—and the lack of visitors. He expressed his trust of the court members and joked that he should "'be allowed to have [his] photograph taken and be allowed to sell them just as Guiteau does.'"[127]

At the beginning of the second day, the stenographer from Buffalo was sworn. While the court members were in a closed session, SGT Mason complained to press and spectators that, as an NCO, he should have been entitled to confinement in quarters rather than in the guardhouse but was not

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[121] *Sergeant Mason on Trial: The Prisoner's Counsel*, *supra* note 116, at 1. The court-martial was required to keep a record of its proceedings. Winthrop, *supra* note 32, at 502; Davis, *supra* note 104, at 191. Although a clerk or court reporter could be appointed, Davis, at 191 n.3, the judge advocate who prosecuted the case usually acted as "the ministerial officer who notes the proceedings under the court's direction." Winthrop, at 502. The record had to include "everything which takes place in open court," Davis, at 191, including "the sworn testimony and written evidence, with the objections to its admission and rulings thereon; the closing arguments or statements." Winthrop, at 503.

[122] *Sergeant Mason on Trial: The Prisoner's Counsel*, *supra* note 116, at 1; *Sergeant Mason*, *supra* note 120, at 1.

[123] *Sergeant Mason on Trial: Mason Makes No Plea*, Evening Star, Feb. 20, 1882, at 1.

[124] *Id.*

[125] *Id.* According to the *Washington Post*, after SGT Mason said he had no plea, the judge advocate instructed him to then enter a plea of not guilty, and SGT Mason did so. *Sergeant Mason's Trial*, *supra* note 110, at 1. "When a prisoner arraigned before a general court-martial, from obstinancy and deliberate design, stands mute, or answers foreign to the purpose, the court may proceed to trial and judgment, as if the prisoner had pleaded not guilty." Article of War 89 (1874).

[126] *Sergt. Mason's Trial Begun*, N.Y. Times, Feb. 21, 1882, at 2.

[127] *Sergeant Mason on Trial: The Prisoner's Counsel*, *supra* note 116, at 1; *Sergeant Mason*, *supra* note 120, at 1.

afforded any relief by the court-martial.[128] After the court convened in open session, the president announced that the witnesses would be sequestered.[129]

The plan of the jail, its grounds, and Guiteau's cell was produced, along with a note from the supervising architect. There was a question of proper authentication, but Mr. Bigelow consented to its introduction into evidence.[130] COL Ayres was called to testify. He produced the morning report, establishing that SGT Mason's battery had been ordered to report to the jail on September 11 for the purpose of guarding government property and that SGT Mason had accompanied his unit.[131] When the judge advocate asked SGT Mason if he had questions for the witness, Mr. Bigelow stated that he preferred to cross-examine the witness directly. "Permission was accorded to Mr. Bigelow to question witnesses, through the Judge-Advocate, the witnesses reserving their replies until the court had signified its pleasure as to whether they should answer or not."[132]

The restriction on Mr. Bigelow was unusual. Normally, in cases in which a stenographer was employed, counsel were permitted to question witnesses "*viva voce*, as in ordinary civil procedure."[133] Otherwise, apparently as an aid to the judge advocate, who was responsible for preparing the record, questions by both parties were reduced to writing and then put to the witness by the trial judge advocate, who would then "record the answers, as they were made, in the exact words of the witness."[134]

CPT McGilvray,[135] the battery commander, then testified concerning the movement of the battery personnel to the jail and the disbursement of the troops. He did not see SGT Mason fire his weapon but heard its report. When he turned, he saw SGT Mason standing with his rifle lowered from the firing

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[128] *Sergeant Mason*, Nat'l Republican, Feb. 22, 1882, at 1; *The Trial of Sergt. Mason*, N.Y. Times, Feb. 22, 1882, at 2.

[129] *Sergeant Mason: Second Day of His Trial*, Evening Critic (Washington, D.C.), Feb. 21, 1882, at 1; *The Trial of Sergt. Mason*, N.Y. Times, Feb. 22, 1882, at 2.

[130] *Sergeant Mason's Trial*, Wash. Post, Feb. 22, 1882, at 1.

[131] *Id.*

[132] *The Trial of Sergt. Mason*, N.Y. Times, Feb. 22, 1882, at 2.

[133] Davis, *supra* note 104, at 121.

[134] *Id.*

[135] The Washington Post spelled the Captain's name "McGilbray," but all other sources use "McGilvray."

position.[136] Mr. Bigelow objected to the leading nature of the questions and the president cautioned the judge advocate.[137] Using the plat, CPT McGilvray pointed out where SGT Mason was located when he fired and the location of Guiteau's cell. CPT McGilvray testified that he had examined SGT Mason's rifle and concluded it had recently been fired. He further described for the court members his inspection of Guiteau's cell and his conclusions on the trajectory of the bullet.[138]

During the day's proceedings, the judge advocate had referred to Guiteau as "the prisoner Guiteau." The president of the court "directed that[, as Guiteau had already been convicted of the murder of President Garfield,] the term 'the assassin Guiteau' be substituted."[139] The court then adjourned to reconvene in two days, not meeting on February 22, which was Washington's birthday, a holiday in U.S. Government offices in the District of Columbia.[140]

While the court had been in secret session, SGT Mason complained to reporters and bystanders of his quarters and military authorities prohibiting him from giving autographs and selling his photograph. He freely admitted that he wanted to kill Guiteau and was only sorry that he had not completed the task.[141]

When court convened on February 23, SGT Mason's wife and child were present.[142] The beginning of the day's session was delayed due to the unavailability of one of the members. During that time, Mr. Bigelow spoke to the press, contradicting SGT Mason's complaints about the conditions of his confinement,[143] noting that an officer charged with the same offense would also be confined, and Mason's cell was better than the quarters for the guard

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[136] *Sergeant Mason's Trial*, *supra* note 130, at 1.

[137] *Id.*

[138] *City and District: The Mason Court Martial*, Evening Star, Feb. 22, 1882, at 3.

[139] *The Trial of Sergt. Mason*, N.Y. Times, Feb. 22, 1882, at 2.

[140] *Sergeant Mason's Trial*, *supra* note 130, at 1, *The Trial of Sergeant Mason*, Evening Star, Feb. 21, 1882, at 1. The federal holiday honoring George Washington was added to the calendar in the District of Columbia by Act of January 31, 1879, 20 Stat. 277 (1879).

[141] *Sergeant Mason's Trial*, *supra* note 130, at 1.

[142] *The Trial of Sergeant Mason*, *supra* note 140, at 1.

[143] *Sergeant Mason's Trial*, Wash. Post, Feb. 24, 1882, at 2.

down the hall.[144] The first two hours of court were consumed by the reading of the record of trial and making appropriate corrections.[145]

Mr. Bigelow cross-examined CPT McGilvray and produced a "patent medicine almanac" to show what time the sun set on September 11 but did not insist on it being part of the record.[146] The judge advocate called the jail warden to testify. The warden explained that Guiteau was in the habit of looking out his cell window between and 6 and 7 o'clock and that SGT Mason may have been aware of that habit. Mr. Bigelow objected to the question, and the court in secret session sustained the objection, whereupon SGT Mason arose and admitted that he did know.[147] The court president ordered SGT Mason to remain silent.[148] After the day's proceedings concluded, SGT Mason continued to complain about his food and quarters and contrasted them to those provided to Guiteau.[149]

The next day, February 24, after the reading of the previous day's record, Mr. Bigelow moved the court to subpoena I.C. Robinson. When required to explain the relevance of the witness's testimony, Mr. Bigelow stated that the witness had been SGT Mason's commander during the Civil War and would testify that SGT Mason suffered a serious wound by the accidental discharge of his gun, shattering the cervical nerves and producing a marked change in his temperament.[150] This evidence was to be used for mitigation, not an insanity defense.[151] The president questioned how serious the wound could have been, as SGT Mason was allowed to reenlist several times. Mr. Bigelow said that he would contest the appropriateness of those reenlistments. The president ordered the issuance of the subpoena.[152]

Several other officers and a sergeant testified similarly to CPT McGilvray: Although they did not see SGT Mason fire the shot, they heard him confess and express his hope that he had killed Guiteau.[153] The court

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144 *The Trial of Sergeant Mason*, Evening Star, Feb. 23, 1882, at 1.

145 *Id.*; *Sergeant Mason's Trial*, *supra* note 143, at 1.

146 *Sergt. Mason's Trial*, N.Y. Times, Feb 24, 1882, at 2.

147 *Id.*; *Sergeant Mason's Trial*, *supra* note 143, at 2.

148 *Sergt. Mason's Trial*, *supra* note 146, at 2.

149 *Sergeant Mason's Trial*, *supra* note 143, at 2.

150 *Sergeant Mason's Trial*, Wash. Post, Feb. 25, 1882, at 4.

151 *The Trial of Sergeant Mason*, Evening Star, Feb. 24, 1882, at 1.

152 *Sergeant Mason's Trial*, Wash. Post, Feb. 25, 1882, at 4.

153 *Id*.

stenographer was then sworn to testify about admissions SGT Mason had made the previous day when he interrupted the proceedings.[154] Mr. Bigelow's objection against admission of such evidence was eventually sustained.[155] Mr. Bigelow's objection was similarly sustained after the judge advocate attempted to call one of the court members to testify.[156]

Court members were prohibited from assuming duties that were incompatible with those of a court member such as acting as the judge advocate or defense counsel.[157] Although seen as "undesirable …, the fact that a [court member] is called upon to testify does not affect the validity of the proceedings, nor does it operate to debar the member himself from the exercise of any of the duties or rights incident to his membership."[158] Today, no witness is eligible to serve as a court member.[159]

At the beginning of proceedings on February 25, the record of trial was again read and verified. The *Washington Post* complained that, as the trial progressed, "the time consumed in reading and verifying the court records grows in length. Fully two hours were spent in this kind of pastime."[160]

Over the objection of the defense, Lieutenant R.G. Howell testified that he was present when a reporter interviewed SGT Mason at the guardhouse the night of the shooting, and that SGT Mason had said that "he loaded his gun and went to the jail with the express determination to shoot Guiteau."[161] The court then went to view the location of the shooting. They examined the point at which the shot was alleged to have been fired, as well as took measurements of the trajectory of the bullet.[162] Guiteau was pleased to meet the court members, illustrated where he was when the shot entered his cell,

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[154] *The Trial of the Would-Be Assassin of Guiteau*, N.Y. Times, Feb. 25, 1882, at 3.

[155] *Sergeant Mason's Trial*, Wash. Post, Feb. 25, 1882, at 4.

[156] *The Trial of Sergeant Mason*, *supra* note 151, at 1.

[157] Winthrop, *supra* note 32, at 173.

[158] Davis, *supra* note 104, at 131; Winthrop, *supra* note 32, at 173.

[159] R.C.M. 912(f)(1)(D). The UCMJ only prohibits a court member from being a witness for the prosecution. Article 25(d)(2), UCMJ, 10 U.S.C. § 825(d)(2) (2012).

[160] *Sergeant Mason's Trial*, Wash. Post, Feb 26, 1882, at 4. *See also The Trial of the Would-Be Assassin of Guiteau*, N.Y. Times, Feb. 25, 1882 at 3 (referring to the "tedious verification of the record of the proceedings of the previous day").

[161] *Sergeant Mason's Trial*, *supra* note 160, at 4.

[162] *Id.*

and busied himself writing autographs and providing them, along with his photograph, to the members.[163]

On Monday, February 27, another officer testified, apparently without objection, that on September 12, 1881, the day after the shooting, he had interviewed SGT Mason in his cell, seeking a satisfactory explanation for his conduct, which he considered out of character.[164] SGT Mason admitted to this officer that he shot with the intent to kill Guiteau.[165]

At the time, there was no requirement that an accused be warned of his constitutional right to remain silent. An accused's admission of guilt was admissible "if made under such circumstances as to make it clear that [it was] entirely voluntary. Any evidence going to show that a confession was extorted by means of threats or promises, or by the use of force, especially by a person in authority, will completely destroy its evidential value."[166] "So it will be admissible though elicited by questions addressed directly to the accused by a person in authority and assuming his guilt, or by means of making him partially intoxicated, or by practicing upon him some deception by which he is entrapped into confessing."[167] Although this particular admission was not critical to the case, today such a statement would be clearly inadmissible.[168]

The prosecution rested.

In his opening of the defense case, Mr. Bigelow stated that there was no evidence to show where Guiteau had been when the shots were fired.[169] The evidence he then presented was directed at showing SGT Mason's good military character. At the time, general good character evidence was admissible in federal civilian trials to strengthen the presumption of innocence.[170] It was even more important in courts-martial, which were not bifurcated proceedings—all evidence relevant to findings *and* sentencing had to be presented in one hearing.[171] Thus, evidence of an accused's good military

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[163] *Trying Sergt. Mason*, N.Y. Times, Feb. 26, 1882, at 2.

[164] *The Mason Court-Martial*, Evening Star, Feb. 27, 1882, at 3.

[165] *Sergeant Mason's Trial*, Wash. Post, Feb 28, 1882, at 4.

[166] Davis, *supra* note 104, at 268 (footnotes omitted).

[167] Winthrop, *supra* note 32, at 329 (footnotes omitted).

[168] UCMJ, art. 31(b), 10 U.S.C. § 836(b) (2012).

[169] *The Mason Court-Martial*, *supra* note 164, at 3.

[170] Davis, *supra* note 104, at 265; Winthrop, *supra* note 32, at 350.

[171] William C. DeHart, Observations on Military Law and the Constitution and

character was always admissible. Today, under the Military Rules of Evidence, "[e]vidence of a person's character or character trait is not admissible to prove that on a particular occasion the person acted in accordance with the character or trait."[172] An accused may, however, offer evidence of a character trait pertinent to an offense or defense.[173] Nevertheless, the military continued to authorize the admission of good military character evidence to show that an accused is not likely to have committed the offense.[174] Congress recently ordered an end to this practice.[175]

Mr. Bigelow recalled CPT McGilvray to testify to SGT Mason's good character as a soldier.[176] Several certificates recognizing SGT Mason's enlistments and honorable discharges were introduced.[177] Mr. Bigelow elicited testimony from CPT McGilvray and LT Richmond that it was unclear where in the cell Guiteau was at the time of the shooting.[178] Mr. Bigelow then sought the attendance of Guiteau to establish that he was actually lying in his bunk at the time of the shooting, and was therefore not in danger.[179] He realized, however, that the witness was, by virtue of his conviction for a crime of infamy, disqualified from testifying.[180] Although no statute prohibited such a witness from testifying, the courts relied on the common law rule of infamy to prevent it.[181]

Practice of Courts-Martial 188 (1846); *see also* Rollin A. Ives, A Treatise on Military Law and the Jurisdiction, Constitution, and Procedure of Military Courts 174 (1879).

[172] Mil. R. Evid. 404(a)(1).

[173] Mil. R. Evid. 404(a)(2)(A).

[174] *See, e.g.*, United States v. Benedict, 27 M.J. 253, 262 (C.M.A. 1988). *See also* Mil. R. Evid. 404(a), Drafters' Analysis, Manual for Courts-Martial, United States, at A22-39 (2013 Supp).

[175] *See* The Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Publ. L. No. 113-291, § 536 (2014).

[176] *Sergeant Mason's Trial*, *supra* note 165, at 4; *The Mason Court-Martial*, *supra* note 164, at 3.

[177] *Sergeant Mason's Trial*, *supra* note 165, at 4; *The Mason Court-Martial*, *supra* note 164, at 3.

[178] *Sergeant Mason's Trial*, *supra* note 165, at 4; *The Mason Court-Martial*, *supra* note 164, at 3.

[179] *Sergeant Mason's Trial*, *supra* note 165, at 4.

[180] *The Mason Court Martial: Mr. Bigelow Wants Guiteau as a Witness*, Evening Star, Feb. 27, 1882 (2d ed.), at 3.

[181] *See* Davis, *supra* note 104, at 254; Winthrop, *supra* note 32 at 334.

At Mr. Bigelow's request, the court ordered the Post Surgeon to conduct a physical examination of the wound SGT Mason received during the Civil War.[182] Mr. Bigelow was hoping to establish that the wound should have barred him from reenlisting,[183] although it appears that would not have deprived the court-martial of jurisdiction, as enlistments that contravened Army regulations were deemed to be voidable, not void.[184]

The physical examination did not go well. "Mason treated the surgeons with great indignity and disrespect, cursing at them."[185] He refused to let the surgeons touch him, although after much persuasion, he allowed them to view the scar.[186]

The following day, one of the surgeons testified that he had examined SGT Mason's wound but that SGT Mason had refused to answer his questions.[187] He opined that the scar was evidence of a serious shoulder wound, but he did not think it impaired the joint or disqualified SGT Mason from military service.[188]

Mr. Bigelow had hoped to call Major (MAJ) Israel C. Robinson, the subpoenaed witness, to testify to SGT Mason's service during the Civil War. As MAJ Robinson had not yet arrived from his duty station, the court suggested Mr. Bigelow prepare a stipulation of expected testimony and was given a day to do so.[189]

The warden of the prison where Guiteau was being held testified that Guiteau had told different stories about his position in the cell when he was shot at.[190] Mr. Bigelow then waived the postponement and presented the stipulation of expected testimony. If present, he read, MAJ Robinson would testify that he was the captain of the company to which SGT Mason, serving

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[182] *Sergt. Mason's Defense Opened*, N.Y. Times, Feb. 28, 1882, at 3; *In Trouble Again*, Evening Critic, Mar. 8, 1882, at 3.

[183] *Sergeant Mason in Trouble Again*, Wash. Post, Mar. 9, 1882, at 4; *In Trouble Again*, *supra* note 182, at 3.

[184] Winthrop, *supra* note 32, at 546.

[185] *In Trouble Again*, *supra* note 182, at 3.

[186] *Id.*

[187] *The Trial of Sergeant Mason*, Evening Star, Feb. 28, 1882, at 1.

[188] *Sergeant Mason's Trial*, Nat'l Republican, Mar. 1, 1882, at 1.

[189] *Id.*; *Sergeant Mason's Trial*, Wash. Post, Mar. 1, 1882, at 1.

[190] *Sergeant Mason's Trial*, *supra* note 188, at 1.

under the name of Charles B. Mason, had been assigned during the civil war.[191] He would also testify that SGT Mason "was accidentally shot by his own rifle," and to his "excellent and soldierly character."[192] The defense rested.[193]

When court opened on March 2, MAJ Robinson was present and confirmed the matters contained in the stipulation of expected testimony that had been admitted the previous day.[194] SGT Mason rose and stated that he wanted to address the court. The president told him that he could speak through his counsel or submit a written statement. SGT Mason insisted that he wanted to speak himself and that he could deliver it in two minutes and he did not want his words to go into the record. After a closed session, the president informed SGT Mason that he would be permitted to make a statement but that it would be recorded. SGT Mason declined to make a statement subject to such a condition.[195]

The judge advocate waived his initial argument.[196]

Mr. Bigelow made his closing argument. After thanking the court profusely for its "courtesy, patience, and impartiality,"[197] he argued the lack of evidence of Guiteau's location to support a finding that Guiteau could have been harmed by the shot; he asserted that it was too dark for SGT Mason to have fired with precision; and he cited precedents "that a man cannot be legally held to have committed an act which the law believes to be legally impossible of commission."[198] Mr. Bigelow concluded by pleading for mitigation if the court were to convict. "He spoke of the universal indignation which attended the monstrous crime which deprived the Nation of its chief

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[191] *Id.*

[192] *Id.*

[193] *Id.*

[194] *The Trial of Sergeant Mason*, Evening Star, Mar. 2, 1882, at 1.

[195] *End of Sergt. Mason's Trial*, N.Y. Times, Mar. 3, 1882, at 3; *Sergeant Mason's Trial*, Wash. Post, Mar. 3, 1882, at 2. During the court's deliberations, SGT Mason told a reporter that he wanted "to thank the court for a fair hearing, also Mr. Bigelow, my best friend, and if this court wishes to send me out of the army dishonorably I can only say that it was for striking terror and fright to the heart of that cowardly, sneaking, cast-iron-jawed, projected eyebrowed assassin Guiteau," and to acknowledge that he was at the court's mercy. *The Trial of Sergeant Mason*, *supra* note 194, at 1.

[196] *The Trial of Sergeant Mason*, *supra* note 194, at 1; *End of Sergt. Mason's Trial*, *supra* note 195, at 3.

[197] *End of Sergt. Mason's Trial*, *supra* note 195, at 3.

[198] *Id.*

magistrate and the Army of its commander."[199] He also urged the court to consider the lengthy pretrial confinement served by the accused.[200]

In his closing, the judge advocate reviewed the testimony and argued that "inability to carry out the intent to kill did not relieve from the charge of the attempt."[201] The courtroom was cleared for deliberations. The court deliberated for approximately thirty minutes and then recessed to allow the stenographer to prepare the record of the day's proceedings.[202] The doors were reopened, and the court announced it had reached a decision.[203] Thereafter, the record was "verified and approved," and "the court adjourned sine die."[204] As was the practice of the time, neither the findings nor sentence was announced, as they were deemed to be only recommendations until the reviewing authority approved them.[205]

One newspaper reported that a "member of the court stated that a verdict was arrived at within five minutes after the court took the case."[206] Several newspapers noted that the record would be sent to MG Hancock to approve or disapprove the findings and confirm or set aside the sentence.[207]

V. Post-Trial

A. MG Winfield Scott Hancock

MG Hancock was a graduate of the United States Military Academy at West Point,[208] who had served under his namesake during the Mexican War.[209] Known as "Hancock the Superb" after leading a critical counterattack during

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[199] *Id.*

[200] *Id.* At the time, an accused was not entitled to credit for time served in pretrial confinement. Winthrop, *supra* note 32, at 426.

[201] *Sergeant Mason's Trial*, Wash. Post, Mar. 3, 1882, at 2.

[202] *Sergeant Mason*, Evening Critic, Mar. 2, 1882, at 1; *The Trial of Sergeant Mason*, *supra* note 194, at 1.

[203] *The Trial of Sergeant Mason*, *supra* note 194, at 1.

[204] *End of Sergt. Mason's Trial*, *supra* note 195, at 3; *see Sergeant Mason's Trial*, Wash. Post, Mar. 3, 1882, at 2; *The Trial of Sergeant Mason*, *supra* note 194, at 1.

[205] *See* Winthrop, *supra* note 32, at 447.

[206] *Sergeant Mason's Trial*, Nat'l Republican, Mar. 3, 1882, at 1.

[207] *See, e.g.*, *id.*; *Sergeant Mason's Trial*, Wash. Post, Mar. 3, 1882, at 2.

[208] David M. Jordan, Winfield Scott Hancock: A Soldier's Life 8–11 (1988).

[209] *Id.* at 13–19.

MG George B. McClellan's Civil War Peninsula Campaign in 1862,[210] he was cited by Congress for "his gallant, meritorious and conspicuous share in that great and decisive victory" at Gettysburg, where he was severely injured leading the troops that repulsed Pickett's charge.

At the close of the Civil War in 1865, MG Hancock commanded the Middle Military Division, which included the District of Columbia.[211] After President Lincoln's assassination, at President Johnson's request, MG Hancock and his troops were recalled to the nation's capital to restore calm.[212] In July of that year he supervised the execution of the Lincoln assassination conspirators.[213] Thereafter, as the commander of the Fifth Military District, which included Texas and Louisiana, he issued General Order No. 40, in 1867, expressing his intent to stay out of local politics if the people conducted themselves peacefully and the civilian officials performed their duties.[214] "The views expressed were contrary to the whole philosophy of the reconstruction acts passed by Congress" and were well received by conservative white Democrats.[215] MG Hancock's tour of duty raised his profile as a potential presidential nominee in the 1868 election.[216] He failed, however, to obtain the Democratic nomination.[217]

MG Hancock assumed command of the Military Division of the Atlantic, headquartered on Governors Island, New York, in 1872.[218] He declined to

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[210] *Id.* at 44–45, 98–99; 39 Pub. Res. 27, 14 Stat. 354 (Apr. 21, 1866).

[211] *Id.* at 176.

[212] *Id.*

[213] *Id.* at 177–78. A judge of the Supreme Court of the District of Columbia issued a writ of habeas corpus to MG Hancock to produce Mary Surratt, one of the conspirators who had been condemned to death by military commission. Through the Attorney General, who accompanied him to court, MG Hancock acknowledged that he held Mrs. Surratt, but he declined to produce her "by reason of the order of the President of the United States indorsed upon said writ," suspending the writ of habeas corpus in the case and directing MG Hancock to execute the judgment of the military commission. *Id.* at 178 (quoting *End of the Assassins*, N.Y. Times, July 8, 1865 at 1). The court found "itself powerless to take any further action in the premises, and therefore decline[d] to make orders which would be vain for any practical purpose." *Id.*

[214] *Id.* at 203–04.

[215] *Id.* at 204.

[216] *Id.* at 214.

[217] *Id.*

[218] *Id.* at 236.

be considered for the presidential nomination that year,[219] received votes at the Democrats' 1876 convention but, again failed to secure the presidential nomination.[220] On the second ballot of the 1880 convention, he received the requisite two-thirds of the votes, and became the Democrats' presidential nominee.[221] MG Hancock's opponent in the 1880 presidential election was none other than James A. Garfield.

MG Hancock died on Governors Island, New York, in 1886, while still in command of the Military Division of the Atlantic.[222]

B. The Reviewing Authority

"While the function of a court-martial is, regularly, completed in its arriving at a sentence or an acquittal, and reporting its perfected proceedings, its judgment, so far as concerns the *execution* of the same, is incomplete and inconclusive being in the nature of a *recommendation* only."[223] To give the findings and sentence effect, they had to be approved by the reviewing authority, the commander who convened the court.[224] Thus it fell to MG Hancock, the former political enemy of President Garfield, to approve or disapprove the findings and sentence of SGT Mason's court-martial.

Although not specifically provided for in the Articles of War, military authorities presumed that, incident to his power to approve or disapprove the findings or sentence, the reviewing authority had authority to return the proceedings to the court-martial for "correction" of any errors.[225] The term "errors" was defined broadly to include the reviewing authority's disagreement with the findings or the sentence.[226] The reviewing authority could reconvene the court-martial for the purpose of reconsidering the accused's guilt and sentence simply because he did not agree with the court's "recommendation."[227]

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[219] *Id.* at 237.

[220] *Id.* at 239.

[221] *Id.* at 279–80.

[222] *Id.* at 312–15.

[223] Winthrop, *supra* note 32, at 447.

[224] *Id.*; Davis, *supra* note 104, at 199.

[225] Winthrop, *supra* note 32, at 454.

[226] *Id.* at 455.

[227] *Id.*; Davis, *supra* note 104, at 203.

In an order issued on March 10, 1882, MG Hancock approved the findings—guilty of assault with the intent to commit murder—and sentence—a dishonorable discharge,[228] confinement at hard labor for eight years in a penitentiary,[229] and "the loss of all pay and allowances now due or to become due to him."[230]

C. Post-Trial Events

A few days before MG Hancock approved the findings and sentence, SGT Mason found himself facing new charges. The two surgeons who had examined the shoulder wound SGT Mason suffered during the Civil War preferred charges against him for insulting them—treating them "with great indignity and disrespect, cursing and swearing at them."[231] Mr. Bigelow visited the surgeons to persuade them to accept an apology from SGT Mason, but SGT Mason told the press that he would not apologize.[232] Apparently, the charges were eventually dropped as there is no further report of SGT Mason facing another court-martial.

Many others were not waiting for the results of the trial. Large numbers of prominent businessmen had already signed a petition calling for pardoning SGT Mason because of "the excitement under which the shooting was done and the claim that punishment enough has been suffered to meet the demands of military discipline."[233]

On March 12, with the results of trial having been published in the press,[234] a reporter went to the Washington Barracks to interview SGT

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[228] The bad-conduct discharge first appeared as a possible sentence in the *Manual for Courts-Martial, U.S. Army* ¶ 117*c* (1949 ed.).

[229] As a punishment, confinement in a penitentiary was limited to conviction for an offense of a civil nature, not military offenses. *See* Article of War 97; WINTHROP, *supra* note 32, at 422; DAVIS, *supra* note 104, at 169–70.

[230] The actual court-martial order was reprinted in full in several newspapers. *See* General Court-Martial Orders No. 26, Department of the East, Mar. 10, 1882, *as reprinted in Sergeant Mason's Sentence*, EVENING CRITIC, Mar. 11, 1882, at 3; *Sergeant Mason Found Guilty*, EVENING STAR, Mar. 11, 1882, at 8.

[231] *In Trouble Again*, *supra* note 182, at 3; *Sergeant Mason in Trouble Again*, WASH. POST, Mar. 9, 1882, at 4.

[232] *In Trouble Again*, *supra* note 182, at 3.

[233] *Petitioning for Mason's Pardon*, WASH. POST, Mar. 12, 1882, at 1.

[234] Editorial, WASH. POST, Mar. 12, 1882, at 2.

Mason.[235] The reporter found the soldiers there sympathetic to SGT Mason's plight but convinced that his "foolish head and too-ready-to-open mouth had in reality done more to bring his misfortune upon him than anything else."[236] Although aware of the sentence from the press accounts, SGT Mason had not been formally notified of the results of trial.[237] He claimed he didn't mind going to prison, even for "a thousand years, … anything to get out of this accursed cell."[238] He expressed concern that his wife would have to return to Virginia and await his release from prison.[239] The reporter noted in the article that Mrs. Mason was being comfortably cared for, staying with other women in the barracks.[240]

The officer of the day formally read the results of the trial to SGT Mason on March 13. With the formal announcement of his conviction and sentence, SGT Mason's knife and razor were removed from his cell.[241]

Later that day, Mr. Bigelow skillfully outlined his plans to attack SGT Mason's conviction.[242] First, he was soliciting petitions from prominent judges and lawyers from around the country, asking for an unconditional pardon.[243] Mr. Bigelow intended to attach to the petitions a thorough review of the case, pointing out "the various flaws in the indictment," most importantly, "that Mason could not be legally tried for attempting to kill Guiteau, inasmuch as the law does not recognize a legal intent to kill, where there was an actual impossibility to kill."[244] He opined that SGT Mason could have been convicted of having fired his rifle without the permission of his superior officer to the prejudice of good order and discipline if he had been so charged.[245] Mr. Bigelow spoke highly of the court members and their intent to do justice and regarded the adjudged sentence as "entirely owing to the manner in which the court regarded the crime—as a gross breach of military discipline."[246]

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[235] *Sergeant Mason's Case*, Wash. Post, Mar. 13, 1882, at 1.

[236] *Id.*

[237] *Id.*

[238] *Id.*

[239] *Id.*

[240] Id.

[241] *Id.; Sergeant Mason's Case*, Evening Star, Mar. 13, 1882, at 1.

[242] *What Gen. Bigelow Says*, Wash. Post, Mar. 14, 1882, at 2.

[243] *Id.*

[244] *Id.*

[245] *Id.*

[246] *Id.*

Meanwhile, the press battled over the appropriateness of SGT Mason's court-martial. The *Washington Post* recognized that SGT Mason could have been tried in civil court—noting that the military had waited for the civilian authorities to make such a demand that was not forthcoming—but that a court-martial was appropriate, as SGT Mason had "clearly violated the military law which supplied to him and guided his conduct as a soldier."[247] The *Chicago Tribune* saw it differently. The *Washington Post* reported that the *Tribune* had criticized the court members for the brutal severity of the sentence and had prophesized that the American people "would court-martial every member of this barbarous court-martial and drive them out of the service as unfit, by reason of their coarse and unjust natures, to command soldiers."[248]

Some were still concerned that SGT Mason's conviction was invalid because he was not present at trial until after the members were sworn.[249] Officers at the barracks, however, asserted that the president remedied the error by stopping the proceeding until SGT Mason was brought in.[250] One newspaper attempted to interview SGT Mason concerning this issue but was told that convicted prisoners could not be made available for interviews.[251] SGT Mason responded to a note left by a reporter raising this issue, in which he confirmed that the court-martial was sworn in his presence, Mr. Bigelow was not present until after the members had been sworn, and he had wanted to plead guilty because he knew the court would find him guilty.[252] He claimed that he did not want to be restored to duty and that after six months in his "dirty cell, that would kill seventy-five men out of every hundred," prison would be the best place for him.[253] In a postscript, he asserted that he did not want to be pardoned by "no Guiteau president."[254]

D. Post-Conviction Relief

At the time of SGT Mason's conviction, there were no appellate courts in the military. Although sentences of Army general courts-martial

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[247] Editorial, Wash. Post, Mar. 15, 1882, at 2.

[248] *A Villainous and Brutal Attack*, Wash. Post, Mar. 16, 1882, at 2 (quoting from the *Chicago Tribune* of "a day or two ago").

[249] *Sergeant Mason's Case*, Evening Critic, Mar. 13, 1882, at 3.

[250] *Id.*

[251] *Id.*

[252] *Sergeant Mason*, Evening Critic, Mar. 15, 1882, at 1.

[253] *Id.*

[254] *Id.*

that included death, a dismissal, or a dishonorable discharge were given "a judicial advisory review" starting in 1918,[255] appellate review of the record was not required until 1920.[256] Even then, the boards of review examined the records of trial for legal sufficiency but the opinions were more in the nature of advice to the Judge Advocate General.[257] The jurisdiction of federal appellate courts to review court-martial convictions was even more limited—to determining whether the court-martial had jurisdiction over the accused.[258]

Nevertheless, on the morning of March 15, Mr. Bigelow visited the prison, where SGT Mason signed before a notary public a petition for a writ of habeas corpus.[259] Mr. Bigelow presented the writ to the United States District Court for the District of Columbia.[260] In it, he alleged that the court-martial had no jurisdiction in time of peace, and that even if it did, the court exceeded its powers in imposing a sentence in excess of that authorized by law."[261] Judge Wylie denied the petition but reconsidered and allowed Mr. Bigelow to withdraw it so that he could present it to the court en banc the following day.[262] But Mr. Bigelow was forced to change his plan as, while he was in court before Judge Wylie, "the military authorities, with indecent haste, Hurried Mason to the Depot, and under guard, started him for the Albany Penitentiary," thus depriving the local federal district court of jurisdiction over the prisoner.[263] Mr. Bigelow was indignant and raised the issue with Secretary of War Lincoln, who denied that the War Department had exercised any control over SGT Mason or even knew of his transfer before it appeared in the press.[264]

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[255] General Orders No. 7 (Jan. 17, 1918), *reprinted in* A Manual for Courts-Martial vi (1921).

[256] Article of War 50 ½ (1920), Act of June 4, 1920, 41 Stat. 787, 797 (1920).

[257] *See id.*

[258] *See* Dynes v. Hoover, 61 U.S. 65, 74–75 (1857).

[259] *Mason Sent to Albany*, Wash. Post, Mar. 16, 1882, at 2.

[260] *Id.*

[261] *Id.*; *National Capital Topics: Efforts to Secure Sergt. Mason's Release*, N.Y. Times, Mar. 16, 1882, at 2.

[262] *National Capital Topics: Efforts to Secure Sergt. Mason's Release*, *supra* note 261, at 2.

[263] *Sergeant Mason*, Evening Critic, Mar. 16, 1882, at 1; *Mason Sent to Albany*, Wash. Post, Mar. 16, 1882, at 2; *National Capital Topics: Efforts to Secure Sergt. Mason's Release*, *supra* note 261, at 2.

[264] *Sergeant Mason*, *supra* note 263, at 1.

Congressman John B. Rice, a native of Ohio who served as a medical officer in a regiment of Ohio Volunteers, offered a resolution in the House of Representatives to inquire as to the legality of SGT Mason's court-martial.[265] Both houses of the New York legislature asked the President to reduce SGT Mason's punishment.[266]

On March 16, the President received resolutions passed by the Ohio legislature asking that he pardon SGT Mason, and the Judge Advocate General, Brigadier General (BG) David G. Swaim, received the record of the court-martial proceedings from MG Hancock for review.[267]

E. The Judge Advocate General's Review of the Case

David G. Swaim was an Ohio native, as were Presidents and former Generals Hayes and Garfield.[268] Unlike Garfield, Swaim was born into a well-connected family: his father was one of the organizers of the Free Soil Party in Ohio[269] and a friend of Salmon P. Chase—governor and U.S. Senator from Ohio, Secretary of the Treasury under Abraham Lincoln, and Chief Justice of the Supreme Court of the United States.[270]

Swaim practiced law for three years before entering the Union Army in 1861 as part of the Ohio Volunteers. During the Chickamauga Campaign he served as the assistant adjutant and chief of the secret service under then-BG Garfield.[271] After being mustered out of the volunteers at the end of

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[265] *National Capital Topics: Efforts to Secure Sergt. Mason's Release*, *supra* note 261, at 2.

[266] *City and District: Condensed Locals*, Evening Star, Mar. 21, 1882, at 4.

[267] *Sergeant Mason's Departure*, Wash. Post, Mar. 17, 1882, at 2.

[268] William R. Robie, *The Court-Martial of a Judge Advocate General: Brigadier General David G. Swaim (1884)*, 56 Mil. L. Rev. 211, 212 (Spring 1972).

[269] *Death List of A Day: Gen. David G. Swaim*, N.Y. Times, Aug. 18, 1897, at 5. The Free Soilers opposed slavery's expansion into any new territories or states, fearing they would be unable to compete economically with slave labor. *Free Soil Party*, *Ohio History Connection*, Ohio History Central, http://ohiohistorycentral.org/w/Free_Soil_Party (last visited Apr. 16, 2017).

[270] *Salmon P. Chase*, *Ohio History Connection*, Ohio History Central, http://ohiohistorycentral.org/w/Salmon_P._Chase (last visited Apr. 15, 2017).

[271] *David Gaskill Swaim, 1834–1897*, Social Networks & Archival Context, http://socialarchive.iath.virginia.edu/ark:/99166/w6dz46x9 (last visited Apr. 15, 2017); Mike West, *Garfield's Report Puts Union Army into Action*, Murfreesboro Post, Aug. 17, 2008, http://www.murfreesboropost.com/garfield-s-report-puts-union-army-into-action-cms-12482.

1866, he was appointed second lieutenant in the regular Army, with duties as a judge advocate.[272]

In 1872, then-Congressman Garfield served as a Special Commissioner of Indian Affairs "authorized by the Secretary of the Interior to carry into execution the provisions of the Act approved June 5, 1872 for the removal of the Flathead and other Indians from the Bitter Root Valley" of central western Montana to the Jocko Reservation in the northwest corner of the state.[273] Then-MAJ Swaim, serving at the Military Department of Missouri,[274] appears to have been part of the negotiating team—he signed the agreement as a witness.[275]

On December 1, 1880, President-elect Garfield sent a letter to President Hayes bemoaning the difficulty he was having getting the Army to detail "even temporarily, an army officer, to act as my private secretary."[276]

> If therefore you find it convenient to retire the Judge Advocate General, and appoint MAJ Swain (sic), I shall be very glad to have you do so.…
>
> I fear, that should I call him away from his strictly professional duties, antagonisms might be created which would make his promotion more difficult.[277]

In a memorandum attached to the letter,[278] Garfield summarized Swaim's biography in glowing terms, including a representation that in 1869, he "argued ably & successfully"[279] before the Supreme Court in the case of *Ex Parte McCardle*.[280]

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[272] *Death List of A Day: Gen. David G. Swaim*, N.Y. Times, Aug. 18, 1897, at 5.

[273] Saint Mary's Mission, http://www.saintmarysmission.org/BitterrootSalish-GarfieldAgreement.html (last visited Apr. 15, 2017).

[274] *Death List of A Day: Gen. David G. Swaim*, N.Y. Times, Aug. 18, 1897, at 5.

[275] *Id.*

[276] Letter from James A. Garfield to Rutherford B. Hayes, Dec. 1, 1880, original in Indiana Historical Society, copy in Rutherford B. Hayes Library, Fremont, Ohio.

[277] *Id.*

[278] Addendum to Letter from President-Elect James A. Garfield to President Rutherford B. Hayes, Dec. 1, 1881, *quoted in* Robie, *supra* note 268, at 212.

[279] *Id.*

[280] 74 U.S. 506 (1869). McCardle, a Mississippi newspaper publisher printed articles

BG William McKee Dunn, the Judge Advocate General of the Army, retired on January 22, 1881.[281] On February 2, 1881, President Hayes directed that MAJ William Winthrop "be assigned to act as Judge Advocate General, until a Judge Advocate General shall have been appointed and entered upon duty."[282] In accord with President-elect Garfield's wishes, President Hayes appointed MAJ Swaim Judge Advocate General on February 18, 1881.[283]

After Guiteau shot President Garfield, BG Swaim spent much of his time with the wounded President Garfield, even participating in his care. He accompanied the fatally wounded President to Elberon, Long Branch, New Jersey, and was at Garfield's bedside when he died.[284]

In 1884, BG Swaim was convicted by court-martial of conduct unbecoming an officer for fraudulent dealings in his personal finances. The court sentenced him to be suspended from duty for twelve years and to forfeit one-half of his pay per month.[285] He filed a petition at the Court of Claims, seeking a ruling that the findings and sentence of the court-martial should be declared void and that judgment should be entered awarding him the amount of pay and allowances that he had forfeited. The Court of Claims dismissed

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criticizing the Military Reconstruction Act of 1867, enacted by the Republican Congress, imposing military government on many former Confederate States. Military authorities arrested McCardle and held him in custody awaiting trial by military commission on charges of publishing libelous and inflammatory articles. The federal circuit court for the district of Mississippi denied McCardle's petition for a writ of habeas corpus, and he appealed to the Supreme Court. William W. Van Alstyne, *A Critical Guide to Ex Parte McCardle*, 15 Ariz. L. Rev. 229, 236 (1973). The Court denied the government's motion to dismiss for lack of jurisdiction. *See* Ex parte McCardle, 73 U.S. 318 (1868). After the Supreme Court heard oral argument on the merits of the petition, and over the President's veto, Congress repealed the Supreme Court's jurisdiction to hear appeals of habeas petitions brought under the Military Reconstruction Act. Chief Justice Chase, friend to Swaim's father, writing for the unanimous Court, held that the Court was without jurisdiction to decide the case. As its jurisdiction to hear the case was authorized by Congress, it could be rescinded by the same authority. *See generally* Van Alstyne, *supra*.

[281] William F. Fratcher, *Colonel William Winthrop: A Biographical Sketch*, The Judge Advocate J., vol. 1, No. 3, at 12, 13 (Dec. 1944).

[282] *Id.*

[283] *Id.*

[284] *The President Dead*, N.Y. Times, Sept. 20, 1881, at 1.

[285] Robie, *supra* note 268, at 226. "When a court-martial suspends an officer from command, it may also suspend his pay and emoluments for the same time, according to the nature of is offense." Article of War 101 (1874).

the petition[286] and he appealed to the Supreme Court. His appeal was less than successful. The Supreme Court agreed with the Court of Claims. BG Swaim was not entitled to return of one-half of his pay per month, for he was not entitled to any pay: "where an officer is suspended from duty, he is not entitled to emoluments or allowances."[287] In the meantime, the President remitted the unexecuted portion of the sentence on December 3, 1894, and BG Swaim was retired on December 22.[288]

Article of War 113 provided that the original record of the proceedings of courts-martial be forwarded "to the Judge Advocate General of the Army, in whose office they shall carefully be preserved." The Judge Advocate General was to "receive, *revise*, and have recorded the provisions of all courts-martial."[289]

In his report of March 23, 1882, addressed to Secretary of War Lincoln, BG Swaim noted that there was a wall between SGT Mason and the line of fire and SGT Mason stated that he did not know if he had killed Guiteau. From this BG Swaim concluded that SGT Mason had fired the shot at random without "reasonable certainty of assaulting or killing him."[290] "As the ability to commit the assault was both apparently and really wanting, I am of the opinion that there is a material variance between the allegations and the proofs, and the conviction ought not to be sustained."[291] He recognized that, by making exceptions and substitutions, the court-martial could have found SGT Mason guilty of the "lesser kindred offense" of discharging his musket and making "disorderly declarations," which "tended in a high degree to endanger the good order of the troops then present."[292] Nevertheless, the material variance was "sufficient to justify setting the conviction aside, and it [was] so recommended."[293] Apparently BG Swaim understood the power to revise the proceedings of the court-martial as no more than the power to recommend revision to the Secretary of War.

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[286] Swaim v. United States, 28 Ct. Cl. 173, 237 (1893).

[287] Swaim v. United States, 165 U.S. 553, 565–66 (1897).

[288] Robie, *supra* note 268, at 240.

[289] Article of War 113 (1874), Act of June 23, 1874, § 2, 18 Stat. 244 (1874) (emphasis added).

[290] *Review of Sergeant Mason's Case*, *quoted in* Am. L. Rev., vol. XVI, at 403 (Boston 1882).

[291] *Id.* at 404.

[292] *Id.*

[293] *Id.*

F. Habeas Corpus

Having been thwarted in his attempt to seek a writ of habeas corpus in Washington, D.C., Mr. Bigelow prepared and filed a petition with the District Court for the Northern District of New York.[294] In it, he argued that the court-martial was without jurisdiction to hear the civilian offense of which SGT Mason had been convicted and that the Judge Advocate General had, by his review of the case, reversed the sentence, "thereby nullifying the conviction."[295]

On March 21, 1882, James M. Lyddy, an attorney from New York, induced SGT Mason to execute a petition for a writ of habeas corpus to be filed at the Supreme Court.[296] In the petition, Mr. Lyddy and his brother C.W. Lyddy, contested the jurisdiction of a court-martial to try in time of peace the offense of which SGT Mason was convicted and, even if jurisdiction did exist, the court-martial exceeded its authority in imposing such a severe sentence.[297]

Mr. Bigelow did not take kindly to these interlopers. He was so incensed that he later wrote to the President that Mr. Lyddy "represented himself as a lawyer (but who is represented by others as a disreputable character engaged for the most part in the business of a dressmaker).[298]

On March 27, the gallery of the Supreme Court was full of lawyers and others anticipating some action on the Lyddys' application on behalf of SGT Mason for leave to file the petition for writ of habeas corpus. Mr. Bigelow was in attendance and entered his "earnest protest" that the Lyddys were not authorized counsel in the case.[299] He further asserted that it was improper to file the writ directly before the Supreme Court without first obtaining a decision in the district court.[300] The Chief Justice authorized Mr. Bigelow to

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[294] Bigelow, *supra* note 83, at 5–6.

[295] Ex parte Mason, 256 F. 384, 386–87 (N.D. N.Y. 1882).

[296] Bigelow, *supra* note 83, at 6. Although Mr. Bigelow and the *New York Times* refer to the attorney filing the habeas petition as "Liddy," the Supreme Court and the *Washington Post* spell his name "Lyddy." *See* Ex parte Mason, 105 U.S. 696 (1882).

[297] *In Behalf of Sergt. Mason*, N.Y. Times, Mar. 24, 1882, at 2.

[298] Bigelow, *supra* note 83, at 6.

[299] *Bigelow Excited*, Evening Critic, Mar. 27, 1882, at 1. *See also Sergeant Mason's Case*, Wash. Post, Mar. 28, 1882, at 4.

[300] *Id.*; *The Case of Sergeant Mason*; Evening Star, Mar. 27, 1882, at 1.

file his protest and, when Mr. Lyddy rose to object, said: "I do not think any remarks, Mr. Lyddy, are necessary."[301]

The Supreme Court denied the Lyddys' writ petition on May 8.[302] The sole opinion in the case, written by Chief Justice Waite, noted that the Court was not unanimous on the question of the Court's jurisdiction over the case.[303] Even if the Court was without jurisdiction, however, it was clear that the court-martial had jurisdiction to try SGT Mason: "He has offended both against the civil and the military law. As the proper steps were not taken to have him proceeded against by the civil authorities, it was the clear duty of the military to bring him to trial under that jurisdiction."[304]

Approximately five months later, the petition for a writ of habeas corpus Mr. Bigelow had filed in the Northern District of New York was denied.[305] The court recognized that it was bound by the Supreme Court's opinion that SGT Mason's offense was "properly cognizable by court-martial."[306] The court further sided with BG Swaim's view of his powers as being limited; his authority to revise the proceedings had to be "read in conjunction with the words that precede and follow it, and, thus read, the duty it imposes is analogous to the duty of receiving and recording the proceedings."[307] It did not give the JAG authority to reverse the conviction.[308]

G. Review Under the Articles of War

While the habeas corpus petitions were being litigated in civilian court, SGT Mason's case continued to wind its way through the military justice system. After receiving BG Swaim's recommendation, Secretary Lincoln presented the case and his report to the Cabinet on April 4. The press reported that the President decided not to act on the case until the Supreme Court rendered its decision on the habeas case.[309] The case, along with all of the petitions for pardon and clemency received by the President, which

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[301] *Bigelow Excited*, *supra* note 299, at 1.

[302] *Sergeant Mason Not to Be Released*, Wash. Post, May 9, 1882, at 4.

[303] *Ex parte Mason*, 105 U.S. at 697.

[304] *Id.* at 698.

[305] *Ex parte Mason*, 256 F. 384 (C.C.N.D.N.Y. 1882).

[306] *Id.* at 387.

[307] *Id.*

[308] *Id.*

[309] *Sergeant Mason's Case Before the Cabinet*, Evening Star, Apr. 5, 1882, at 1.

included one from the Garfield Club of New York with more than 150,00 signatures, was returned to Secretary Lincoln.[310] Secretary Lincoln declined to release his report but it was believed that he did not support BG Swaim's view that the conviction was illegal.[311]

H. Bettie and the Baby

After SGT Mason's trial, his wife Bettie and their baby returned to her father's farm in Virginia, to await the convening authority's approval of the findings and sentence.[312] Mrs. Mason agreed to travel to the barracks in Washington D.C. to obtain the "nearly $2,000" that had been collected on her behalf.[313]

Mrs. Mason arrived in Washington on March 28 to word that her two aunts were arguing over which attorney, Mr. Lyddy or Mr. Bigelow, was properly representing SGT Mason.[314] With their arrival in town, Bettie and the baby became celebrities and the press published human interest stories about them.[315] A Baltimore theater group traveled to Washington to present a performance of "Camille" for the benefit of Bettie and the baby.[316] It was estimated that the performance raised $400.[317] The press reported on April 11, that Mrs. Mason had deposited $1,500 into a local bank.[318] By the end of the month, the *Washington Post* reported that Mrs. Mason had received more than $2,900 from all sources.[319]

On May 11, Mrs. Mason had a lengthy conference with President Arthur, appealing for her husband's release from prison.[320] She represented that "the President had assured her in unmistakable terms that he had been considering her husband's case, and was disposed to do what lay in his power

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[310] *Id.*; *A Mile Long Petition for Mason's Pardon*, Evening Star, Apr. 5, 1882, at 1.

[311] *Sergeant Mason's Case Before the Cabinet*, *supra* note 309, at 1.

[312] *Mason's Sentence*, Wash. Post, Mar. 22, 1882, at 4.

[313] *Id.*

[314] *Mrs. Mason in Town*, Wash. Post, Mar. 29, 1882, at 4.

[315] *See Betty and the Baby*, Wash. Post, Apr. 3, 1882, at 4.

[316] *Mlle. Rhea, Betty and the Baby*, Wash. Post, Apr. 5, 1882, at 4.

[317] *Id.*

[318] *City Brevities*, Wash. Post, Apr. 11, 1882, at 4.

[319] *What Mrs. Mason has Received*, Wash. Post, Apr. 29, 1882, at 4.

[320] *Pleading with the President*, Wash. Post, May 12, 1882, at 3; *Notes from Washington*, N.Y. Times, May 12, 1882, at 1.

for him, which means, she thinks, that Executive clemency is to make itself manifest at an early date."[321] That same day, a correspondent for the *Baltimore American* presented a petition for pardon of SGT Mason containing the signatures of some 3,000 railroad employees.[322] On May 12, President Arthur raised the pardon issue at his cabinet meeting, but he was not ready to act.[323] In the next week, Mrs. Mason received another $3,500 collected from more than 36,000 contributors by the *Philadelphia Press*.[324]

The petitions for clemency kept coming. The *New York Times* claimed that nearly 900,000 people had petitioned the President on SGT Mason's behalf.[325] Another publication asserted that one petition for clemency alone had more than one million signatures.[326] The materials were so voluminous that, in later years, their storage became a concern. In 1901, the Judge Advocate General's Office reported to Congress that "[t]here is no more available space in the storeroom" in which they maintained records of trial.[327] The report noted that the storeroom contained "about 33 cubic feet of records of trial by garrison and regimental courts-martial and about 7 cubic feet of petitions for clemency in the case of Sergt. John A Mason …. These are of no permanent value and might be destroyed."[328] By 1906, the situation had become so critical that the Secretary of War sought legislation permitting Departments of the government to convene boards to recommend to the Department head the destruction or sale of books and papers that were useless or had no permanent or historical value, including SGT Mason's clemency petitions.[329]

I. Mr. Bigelow's Review of the Case

On June 16, 1882, Mr. Bigelow hand-delivered his formal review of SGT Mason's case to F.J. Phillips, President Arthur's private secretary.[330]

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321 *Pleading with the President*, *supra* note 320, at 3.

322 *A Petition for Pardon*, Wash. Post, May 12, 1882, at 3.

323 *Cabinet Matters Discussed*, Wash. Post, May 13, 1882, at 2.

324 *The Fund for Mrs. Mason*, N.Y. Times, May 17, 1882, at 1.

325 *Sergeant Mason*, N.Y. Times, Apr. 1, 1883, at 8.

326 *News of the Week: Domestic*, Present Age, Dec. 6, 1883, at 1227, https://books.google.com/books?id=Qf5LAQAAMAAJ&printsec=frontcover#v=onepage&q&f=false (last visited Apr. 14, 2017).

327 S. Doc. No. 215, 56th Cong. 14 (1901).

328 *Id.*

329 H. Doc. No. 798, 59th Cong., 1st Sess., at 2 (1906).

330 *In Behalf of Sergeant Mason*, Wash. Post, June 17, 1882, at 4.

Mr. Bigelow opened his brief with a critique of Article of War 62, the basis for SGT Mason's conviction.[331] Mr. Bigelow complained that the offense was so vague in that it failed to define any specific offense and that the result of a trial for this offense was largely dependent "upon the composition of the court-martial."[332] Ninety years later, in *Parker v. Levy*, the Supreme Court upheld the constitutionality of the similarly worded Article 134, UCMJ, against challenges alleging the statute was vague and overbroad.[333]

Mr. Bigelow argued that Article of War 62 should not be invoked, except when "the discharge of [the accused's] military functions is to the prejudice of good order and military discipline and *not* cognizable under any other Article of War.[334] He further asserted that SGT Mason could not be convicted of the offense because guarding a civilian prisoner in a civilian jail when the civilian authorities had not determined they were unable to preserve public order was not a legitimate military duty; it was in fact a violation of the Posse Comitatus Act, and therefore, could not be to the prejudice of good order and military discipline.[335]

Mr. Bigelow's argument that assigning military members to guard a civilian prisoner violates the Posse Comitatus Act was sound. Had SGT Mason been charged with dereliction of duty, he would have had a strong argument that he could not be convicted of failing to perform duties that were prohibited by law. But SGT Mason was charged and convicted of assaulting Guiteau with the intent to kill him, such an act certainly being to the prejudice of good order and military discipline. Whether the order to guard Guiteau violated the Posse Comitatus Act was not relevant to that offense.

Unlike Mr. Liddy, Mr. Bigelow recognized that the Supreme Court was without original jurisdiction to consider the habeas petition and pointed out the failure of Mr. Liddy "to present the case on its true merits."[336] He summarized the testimony in the case, claiming that it "not only utterly fails to establish the charge, but actually disproves it."[337] He argued that the judge

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[331] Bigelow, *supra* note 83, at 2–3.

[332] *Id.* at 2.

[333] 417 U.S. 733, 756–57 (1974).

[334] Bigelow, *supra* note 83, at 3.

[335] *Id.* at 4–5. Mr. Bigelow had not raised the issue at trial because "a court-martial is not a proper tribunal to pass judgment upon such a question." *Id.* at 5.

[336] *Id.* at 7.

[337] *Id.*

advocate failed to prove the corpus delecti of the charge because he did not "introduce evidence tending to show the position of the assassin in the cell at the time the shot was fired, or that he was in any danger therefore, or that there was any liability or possibility of the bullet hitting him."[338]

The President referred Mr. Bigelow's brief to the Judge Advocate General for his review and forwarding through Secretary of War Lincoln.[339] BG Swaim maintained his position that SGT Mason's court-martial was "irregular and illegal."[340] Shortly thereafter, in early August 1882, the Attorney General opined that SGT Mason's conduct was both illegal and prejudicial to discipline. Therefore, he would not be recommending a pardon.[341]

J. Dissension in the Mason Team

There can be no doubt that Mr. Bigelow spent considerable time and effort in his representation of SGT Mason, a difficult client who did considerable damage to his own case by refusing to keep his mouth shut. Mr. Bigelow was further distressed by the Liddys, who had interfered by taking the case to the Supreme Court inappropriately. Things came to a head in March 1883. Despite the rather large sums of money that had been raised to help pay for the defense and to support the Mason family, it appears none of it had found its way into Mr. Bigelow's pocket.

On March 26, Mr. Bigelow filed suit for $3,500 or for a just and reasonable sum for his services.[342] In his filing, Mr. Bigelow asserted that more than $12,000 had been provided to Mrs. Mason.[343] Through her attorney, Mrs. Mason filed an answer, asserting that Mr. Bigelow had volunteered to represent her husband, that she never agreed to pay him, that she had already paid him $370, that he had allied himself with the case "only for his own glorification and for the benefit of his reputation," and the equity court was without jurisdiction to hear the claim.[344]

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[338] *Id.* at 9.

[339] *Sergt. Mason's Case*, N.Y. Times, July 12, 1882, at 2; *A Report on the Mason Case*, Wash. Post, July 19, 1882, at 2.

[340] *A Report on the Mason Case*, Wash. Post, *supra* note 339, at 2.

[341] *City Intelligence*, Wash. Post, Aug. 3, 1882, at 4.

[342] *Sergeant Mason's Counsel*, Evening Star, Mar. 26, 1882, at 4.

[343] Id.

[344] *Notes From Washington*, N.Y. Times, Apr. 28, 1883, at 3.

The judge was shocked by Mrs. Mason's claim that Mr. Bigelow was merely a volunteer or an interloper and refused to dismiss a restraining order preventing Mrs. Mason from withdrawing these funds from a local bank until Mr. Bigelow was compensated. On the other hand, he refused to approve Mr. Bigelow's request, leaving it open to settlement.[345] The parties apparently settled, as the judge signed an order dismissing the suit contingent upon payment to Mr. Bigelow of $400.[346]

K. The Pardon

Despite the civilian courts having long completed review of the habeas petitions, the President still did not take up Mr. Bigelow's brief on behalf of SGT Mason. Finally, on November 24, 1883, President Arthur granted SGT Mason "a full and unconditional pardon."[347] SGT Mason was released from the penitentiary two days later.[348] He thanked members of the press as being largely responsible for his release.[349] He complained that his lawyers "have never done me any good. They have only been experimenting on my case like a lot of doctors at a free hospital, and I told Mrs. Mason not to pay them a cent.… I thank the President and the people for slow justice, but I don't feel grateful for my liberty, for I always deserved it."[350] He claimed that, had he been tried by a jury in civilian court rather than a court-martial, he would have been acquitted.[351] Apparently due to his work at the prison shoe shop, SGT Mason had been offered a contract to work for a Chicago clothing firm for $1,500 per year,[352] and he expected to accept it.[353] He then left to join his family in Locust Grove, Virginia.[354]Not everyone was pleased with SGT Mason's attitude toward his clemency. One publication noted that his conduct since his release from prison was such that the President was

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[345] *Bettie and the Baby*, Evening Star, June 13, 1883, at 8.

[346] *Bettie and the Baby*, Evening Star, June 14, 1883, at 1; *see Mrs. Bettie Mason to Pay Gen. Bigelow*, Wash. Post, June 15, 1883.

[347] Record Group 59: Records of the U.S. Department of State, Pardons and Remissions, Entry A1 897, Volume 14, John A. Mason—478; *Sergeant Mason's Release*, Evening Star, Nov. 26, 1883, at 1.

[348] *Sergt. Mason Released*, N.Y. Times, Nov. 27, 1883, at 1.

[349] *Id.*

[350] *Sergeant Mason*, Nat'l Republican, Nov. 27, 1883, at 1.

[351] *Id.*

[352] *Sergeant Mason's Release*, Evening Star, Nov. 26, 1883, at 1.

[353] *On His Road to Betty*, Evening Star, Nov. 27, 1883, at 3.

[354] *Gone to Betty and the Baby*, Wash. Post, Nov. 28, 1883, at 2.

mistaken in supposing that SGT Mason was a good candidate for clemency. "As it turned out, it is greatly to be regretted that President Arthur did not leave Mason where he was, instead of releasing him to be exhibited about the country as a martyr to patriotism."[355]

VI. SGT Mason's Post-Pardon Life

SGT Mason's status as a celebrity did not escape the entertainment industry. The day following his release, sources in Pittsburgh claimed that SGT Mason had "accepted an engagement to appear at the Museum" in that city.[356] He was offered $250 per week "to appear, with his family, as a curiosity in a dime museum."[357] After numerous denials, he acknowledged his acceptance of the offer to appear in the dime museum, "alongside of the Fat Woman and the Only Greatest Tattooed Cannibal."[358] In early February, the press reported that SGT Mason was ensconced at a dime museum in Boston and was an "immense drawing card,"[359] having been seen by over 70,000 people in one week.[360] He moved on to Philadelphia, where he, Bettie, and the baby appeared in a dime museum for $200 per week.[361]

In an interview conducted some 50 years after SGT Mason's death, his youngest son Joseph declared that the family was able to live comfortably, from their stage career and assistance from the Garfield family, on a 185-acre farm near Locust Grove, Virginia, that Mrs. Mason had purchased from donations to the Bettie and baby fund. The donations also permitted Mrs. Mason to purchase the first steam traction engine in Orange County, Virginia.[362]

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[355] The United States Army and Navy Journal & Gazette of the Regular and Volunteer Forces, vol. 21, at. 355 (1883–84), https://books.google.com/books?id=Ovo-AQAAMAAJ&pg=PP5#v=onepage&q&f=false (last visited Apr. 14, 2017).

[356] *Mason to Exhibit Himself*, N.Y. Times, Nov. 28, 1883, at 1.

[357] *Musical and Dramatic*, Evening Star, Dec. 1, 1883, at 3.

[358] *Musical and Dramatic*, Evening Star, Dec. 31, 1883, at 2.

[359] *Musical and Dramatic*, Evening Star, Feb. 2, 1884, at 3.

[360] *Boston Notes*, Essex County Herald (Guildhall, Vermont), Feb. 8, 1884, at 2.

[361] Vermont Phoenix, (Brattleboro, Vermont), Jan. 4, 1884, at 2.

[362] James Moser, *Garfield's Avenger: Son Recounts Father's Deed*, Free Lance-Star (Fredericksburg, Virginia), Oct. 27, 1965, at 17.

In 1899, SGT Mason was released on bail after being charged with assaulting and beating two ladies.[363] He was subsequently acquitted, apparently on the grounds of self-defense.[364]

> It appeared from the evidence that the Sergeant visited the family, who are near relatives of his, for the purpose of giving some fatherly advice when he was simultaneously attacked by five females armed with a doorbar, poker and frying pan. To crown all, the family dog also jumped on the Sergeant, while the women had him down, and in his efforts to free himself from his assailants the supposed assault and battery was committed.[365]

In 1907, *Metropolitan Magazine* reported that the Masons were living in the "near impenetrable depths" of the Wilderness, an area of Orange County, Virginia, where the Battle of the Wilderness had been fought during the Civil War.[366]

With the arrival of the twentieth century, SGT Mason's health began to deteriorate. He availed himself of taxpayer-funded medical care to which he was entitled due to his service during the Civil War and periods of service in the regular Army for which he received honorable discharges.

SGT Mason was admitted to the Western Branch of the National Home for Disabled Volunteer Soldiers in Leavenworth, Kansas, in January 1903 and was discharged a year later.[367] He was admitted to the recently opened Mountain Branch of the National Home for Disabled Volunteer Soldiers, in Johnson, City, Tennessee,[368] for the first time in January 1905

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[363] Peninsula Enterprise (Accomac, VA), Sept. 2, 1899, at 2.

[364] *Acquittal of Sergeant Mason*, Free Lance (Fredericksburg, VA), Sept. 28, 1899, at 3.

[365] *Id.*

[366] *Betty and I and the Baby*, Wash. Post, Feb. 1, 1907, at 6.

[367] FamilySearch, https://familysearch.org/ark:/61903/3:1:33S7-9P8R-WMH?i=622&wc=M6NZ-G68%3A203118901%2C203124301%3Fcc%3D1916230&cc=1916230 (citing Registers of Veterans at the National Home for Disabled Volunteer Soldiers, Mountain Branch in Johnson City, Tennessee, 1903-1932, Register No. 1–1499, at 1216) (last visited Dec. 18, 2016). Registers of Veterans at the National Home for Disabled Volunteer Soldiers, Western Branch, Leavenworth, Kansas, Registration No. 13,549 (listing SGT Mason as Charles P. Mason, an apparent misreading of the logbook entry).

[368] *See Veterans Affairs National Home for Disabled Volunteer Soldiers*, National Park

and spent almost three and one half years there.[369] He was readmitted to the Mountain Branch Home on two later occasions for shorter periods.[370] During his hospitalizations, he was treated for the self-inflicted gunshot wound to his left shoulder, which he received during the Civil War, varicose veins, arteriosclerosis, and cardiac hypertrophy.[371] He died of a cerebral hemorrhage at the Mountain Branch Home at the age of 70 on June 8, 1915, and was buried in the cemetery there.[372] His personal effects, valued at just over $3, along with $57 of pension money, were sent to SGT Mason's widow, Bettie, on June 21, 1915.[373] He had first applied for and been granted pension benefits in June 1882 while incarcerated in the Albany penitentiary and received them until his death.[374] Six days after SGT Mason died, his wife Bettie applied for and was granted a widow's pension.[375]

VII. Conclusion

By the time of his death in 1915, almost 35 years after he shot at Guiteau, SGT Mason had become a footnote to the history of the period. Only his local Fredericksburg, Virginia, newspaper reported his death.[376]

Service https://www.nps.gov/nr/travel/national_cemeteries/Tennessee/Mountain_Home_National_Cemetery.html (last visited Nov. 6, 2016). The cemetery's Mountain Branch was opened to "provide housing, medical care, education, training, and employment to Union veterans in the South." *Id.*

369 *See* Family Search, *supra* note 367.

370 *Id*.

371 *Id.*

372 State of Tennessee Board of Health, Vital Statistics, Certificate of Death, Washington County, Johnson City, No. 295, File No. 174, issued June 31, 1915. As there are only 30 days in June, the date issued appears to be a scrivener's error. The death certificate also incorrectly states that SGT Mason was a widower, which he was not. SGT Mason was buried under his birth name, Charles B. Mason, in Section F, Row 8, Grave No. 7. FamilySearch, https://familysearch.org/ark:/61903/3:1:33S7-9P8R-WMH?i=622&wc=M6NZ-G68%3A203118901%2C203124301%3Fcc%3D1916230&cc=1916230.

373 Register No. 1–1499, *supra* note 367, at 1216.

374 *See* Fold3, https://www.fold3.com/image/5991236?terms=Charles%20B%5C.%20Mason. From his first admission to his death, SGT Mason's pension rose from $12 to $19 a month. Register No. 1–1499, *supra* note 367, at 1216.

375 *See* Fold3, https://www.fold3.com/image/25101289?terms=Charles%20Mason (scanned copy of pension record showing that Bettie Mason applied for widow's pension on June 12, 1915 and that her request was granted) (last visited Apr. 15, 2017).

376 *Sergt. Mason Dead*, Free Lance, June 10, 1915.

Subsequent histories have attributed his conduct to neither Charles B. nor John A. Mason but to William Mason.[377]

Meanwhile, much has changed in military criminal procedure since SGT Mason's court-martial: an accused may not be interrogated without first being informed of his right to remain silent[378] and his right to an attorney;[379] a military judge presides over general and special courts-martial;[380] at their request, enlisted accused are entitled to have at least one third of the court-martial panel consist of enlisted members;[381] appellate courts have been established;[382] accused are represented by attorneys throughout the trial and appellate proceedings;[383] court-martial proceedings are bifurcated into findings and sentencing hearings and the court-martial must announce its findings and sentence as soon as they are determined,[384] without approval of the convening authority; and it takes the concurrence of a minimum of two-thirds of the members to convict.[385]

In considering SGT Mason's trial today, it is important to evaluate not just what has changed but also the procedures that governed his court-martial. He was notified of the allegation against which he had to defend, represented by an able attorney, had the opportunity to cross-examine government witnesses and present his own, and was tried by a tribunal composed of court members who clearly attempted to abide by their oaths to "duly administer justice, without partiality, favor, or affection,"[386] even suppressing evidence adverse to SGT Mason. Nevertheless, the evidence against SGT Mason was overwhelming, much of it provided by the accused, himself, who relished in his notoriety and seemed intent on undermining his attorney at every opportunity. Although his trial did not meet today's standards, SGT Mason received that to which every accused is entitled: a fair and just trial.[387]

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377 *See, e.g.*, Millard, *supra* note 20, at 235.

378 Article 31, UCMJ, 10 U.S.C. § 831 (2012).

379 Mil. R. Evid. 305(d).

380 Article 16, UCMJ, 10 U.S.C. § 816 (2012).

381 Article 25(c), 10 U.S.C. § 825(c) (2012).

382 Articles 66, 67, 67a, UCMJ, 10 U.S.C. §§ 866, 867, 867a (2012).

383 Articles 27(a), 38(b), 70(c), UCMJ, 10 U.S.C. §§ 827(a), 838(b), 870(c) (2012).

384 Article 53, UCMJ, 10 U.S.C.§ 853 (2012).

385 Article 52, 53, UCMJ, 10 U.S.C. §§ 852, 853 (2012).

386 Article of War 84 (1874).

387 United States v. Mack, 41 M.J. 51, 54 (C.M.A. 1994) (citing Bruton v. United States, 391 U.S. 123, 135 1968; Lutwak v. United States, 344 U.S. 604, 619 (1953)).

GOOGLE…IT AIN'T FORD: WHY THE UNITED STATES NEEDS A BETTER APPROACH TO LEVERAGING THE ROBOTICS INDUSTRY

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I. Introduction

"Mayday. Mayday. I'm being attacked by a swarm of robo…." Silence. The last words of a United States Navy aviator who crashed into the Pacific Ocean off the coast of China would be replayed over and over by analysts trying to understand this new threat. The year is 2025, and the United States military has lost its technical edge against rising foes like China. As the government scrambles to combat an unknown autonomous robotic threat, it turns to industry for help. The U.S. defense industrial base (DIB), however, has failed to keep pace in robotics due to dwindling research and development dollars. American officials know that Google has invested heavily in autonomy, but they are unsure what innovative breakthroughs Google engineers have made. As senior DoD officials are about to make contact with Google leadership, a young lawyer asks, "What happens if they don't agree to help? Can you force them?" The answer depends on what the United States chooses to do *today* to refine its tools—from engagement to compulsion—to account for and preserve national security interests in the robotics and autonomous systems (RAS) field.

The U.S. National Security Strategy of 2015 recognizes the critical importance of American science and technology know-how and innovation in order to "keep our edge in the capabilities needed to prevail against any adversary."[1] To ensure that the United States has the tools needed to keep this edge and promote our national security interests in the RAS arena, this paper reviews historical methods and present-day tools of obtaining private industry support for the manufacturing and development of military technology. This paper then explores how the DIB has changed—especially in the robotics area—since these tools were created and utilized, with particular attention to the rise of Google in the autonomy field. Finally, this paper assesses whether present legal tools are robust enough to handle this national security issue and recommends ways to improve American capability to leverage the commercial base, particularly Google,[2] in the coming decade.

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[1] Office of the White House, The National Security Strategy of the United States 8 (2015) ([hereinafter 2015 U.S. National Security Strategy].

[2] In August 2015, Google overhauled its corporate structure by creating a parent company called Alphabet. Google retained the core businesses in its Internet search engine, Internet advertisements, apps, etc. Alphabet took over major research initiatives such as Google X and other incubator projects. Matt Rosoff, *What Is Alphabet, Google's New Company?*, Bus. Insider (Aug. 10, 2015, 5:01 PM), http://www.businessinsider.com/what-is-alphabet-googles-new-company-2015-8. This article will refer to all research and business initiatives owned by Alphabet as "Google" owned and operated entities, as the

II. Historical Methods: From Ford and Manhattan to *Youngstown*

Historically, the United States has relied on a combination of patriotism, profits, and statutes to ensure access to the manufacturing capability necessary to preserve our national security. In December 1940, President Roosevelt gave his famous "Arsenal of Democracy" fireside chat and called upon American private industry to become the factories of freedom for the world.[3] Henry Ford responded to that patriotic call despite being a steadfast pacifist.[4] Ford's factories produced planes, engines, jeeps, and tanks for the U.S. military; following the attack on Pearl Harbor, Ford voluntarily halted all production of commercial automobiles in order to commit the entirety of his production capability to the war effort.[5]

To recruit personnel and knowledge assets to contribute to warfighting efforts, our nation has also relied upon a call to patriotic duty coupled with a desire to further science. For example, during WWII, Robert Oppenheimer utilized patriotism and calls to further the realm of possibility to convince many of the best scientists in the country to join the Manhattan Project.[6] Similarly, Ford dedicated his engineers and technological know-how to improving designs of military equipment to better performance and to reduce manufacturing expenses—all to save the government money for the warfighting effort and hopefully, in turn, win more contracts.[7] While mandatory civil service was contemplated during WWII in order to obtain sufficient manpower, President Roosevelt elected instead to establish the War Manpower Commission in 1942 via executive order.[8] This government commission prioritized placement of civilian volunteers into war manufacturing and construction assets, including the building of atomic weapon development

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public collectively knows and refers to the company.

[3] Albert. J. Baime, The Arsenal of Democracy: FDR, Detroit, and an Epic Quest to Arm an America at War xiii-xvii (2014).

[4] Timothy J. O'Callaghan, Ford in the Service of America: Mass Production for the Military during the World Wars 5 (2009).

[5] *Id.* at 35-37.

[6] Jennet Conant, 109 East Palace: Robert Oppenheimer and the Secret City of Los Alamos 54-55 (2005).

[7] O'Callaghan, *supra* note 4, at 31-32, 173.

[8] Paul V. McNutt, Mobilizing Industrial Manpower, Address at Industrial College of the Armed Forces 3, 21 (Apr. 13, 1948) (transcript available at National Defense University Library).

sites.[9] Other than military service, U.S. laws have not compelled civilians to work in certain fields.

At times, however, U.S. leaders have depended upon the force of law—versus sheer patriotism—to ensure adequate production of military capabilities in war. During the Korean War, for example, President Truman ordered a government takeover of steel mills after striking workers threatened the supply chain of steel for weapons. As president, Truman believed he had the constitutional authority to take over private property in order to prevent significant degradation in the nation's security and war-making ability.[10] While the Supreme Court rejected any presidential authority to "enact domestic legislation unilaterally" in the seminal case of *Youngstown Sheet & Tube Co. v. Sawyer*, the Court found that such taking of private property would be wholly *acceptable* through legislative action.[11] Today, presidents enjoy a range of statutory tools to compel domestic manufacturers to support national security priorities.[12]

III. Present-Day Statutory Tools

A. Defense Production Act

One of the most potent tools to utilize the DIB in a time of national emergency is the Defense Production Act (DPA) of 1950. Though only three of the original titles remain in present-day law, the DPA provides the president expansive national security authorities.[13] Title I of the DPA allows the president to impose priority contracts on domestic companies or individuals

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[9] Stephane Groueff, Manhattan Project: The Untold Story of the Making of the Atomic Bomb 156-57 (1967).

[10] Grant McConnell, The Steel Seizure of 1952 1 (1958).

[11] Youngstown Sheet & Tube Co. v. Sawyer, 343 U.S. 759 (1952); Michael Stokes Paulsen, *Symposium:* Youngstown *Goes to War*, 19 Const. Comment. 215, 216 (2002).

[12] Interestingly, the Truman administration had considered and rejected a number of statutory schemes that may have enabled the government to end the strike, including the Selective Service Act of 1948, the Defense Production Act of 1950, and the Taft-Hartley Act. *See* Paulsen, *supra* note 11, at 227; McConnell, *supra* note 10, at 31-32.

[13] Jared T. Brown & Daniel H. Else, Cong. Research Serv., R43118, The Defense Production Act of 1950: History, Authorities, and Reauthorization 3 (2014); J. Michael Littlejohn, *Using All the King's Horses for Homeland Security: Implementing the Defense Production Act for Disaster Relief and Critical Infrastructure Protection*, 36 Pub. Cont. L.J. 1, 6 (2006).

for goods and services "necessary for national defense."[14] Thus, the government can trump other contracts through the use of DPA prioritization, like it did when purchasing Mine Resistant Ambush Protected (MRAP) vehicles for use in Afghanistan.[15] Additionally, the government can force a company to sell or supply any product that the company has sold within the last two years—even if the factory is no longer making such a product.[16] Title III of the DPA provides tools for the government to ascertain the health and capability of a particular industry and take steps to ensure the country has the ability to produce critical defense materials and goods.[17] The final set of authorities, in Title VII, allows the president to create a "Nucleus Executive Reserve" board of volunteers from both the commercial and government sectors to train for senior leader government positions in the event of a national emergency.[18]

B. Selective Service Act

The DPA authorities make up one part of the Defense Priorities and Allocation System (DPAS). The other major statutory force within DPAS is the priority provision of the Selective Service Act (SSA) of 1948.[19] The SSA allows the president to place orders with "any person operating a…facility capable of producing such articles or materials" provided that Congress has previously authorized the purchase of the defense good.[20] In the event that war is imminent, the president's authorities expand even further and he or she can order "any person or organized manufacturing industry" to produce products "of the type usually produced" by that industry for national defense purposes.[21] All told, the President's powers to compel contracts and production of goods in times of national security necessity are vast—so expansive in fact that former Senator Phil Gramm called it "the most powerful and potentially dangerous American law."[22] The question remains, however, whether the DPAS is robust enough to handle an age where the "secret sauce" of the technology is not the hardware components but the software and where the

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[14] Defense Production Act of 1950, 50 U.S.C. §§ 4502(a)(5), 4511 (2017).

[15] Brown & Else, *supra* note 13, at 9.

[16] Littlejohn, *supra* note 13, at 11.

[17] 50 U.S.C. § 4533(a); Brown & Else, *supra* note 13, at 10.

[18] 50 U.S.C. § 4560(e); Brown & Else, *supra* note 13, at 19.

[19] Littlejohn, *supra* note 13, at 3.

[20] Selective Service Act of 1948, 50 U.S.C. § 3816(a); Littlejohn, *supra* note 13, at 6 n.27.

[21] 10 U.S.C. § 2538 (2017); Littlejohn, *supra* note 13, at 5.

[22] Littlejohn, *supra* note 13, at 6.

company needed by the government to manufacture the needed solution is not a manufacturing entity.

IV. Welcome to the Robotics Age: It's Not Like Ike's Defense Industrial Base

In his final address to the nation, President Eisenhower made the case for a vast, permanent armament industry as "we can no longer risk emergency improvisation of national defense."[23] In the decades since, America's approach toward building a robust DIB and arming the nation's military has worked well. Even in the cutting edge area of robotics, major defense firms like Northrop Grumman and General Dynamics have developed effective Unmanned Arial Vehicles (UASs) for military use such as Global Hawk and Predator. In recent years, however, the DIB has failed to keep pace with the private sector in the area of autonomous systems. Former Secretary of Defense Chuck Hagel recognized the growing need for DoD (and by extension the DIB) to capitalize on commercial innovations:

> Although history is our guide, we are mindful that the 21st century provides new challenges. We cannot assume—as we did in the 1950s and 70s—that the Department of Defense will be the sole source of key breakthrough technologies. Today, a lot of groundbreaking technological change—in areas such as robotics, advanced computing, miniaturization, and 3D printing—comes from the commercial sector. DoD must be able to assess which commercial innovations have military potential, rapidly adopt them, adapt them, and then test and refine them, including through war-gaming and demonstrations.[24]

In Ike's day, the United States spent more on military security than the income of all other U.S. corporations combined.[25] Today, Google's net worth is over *twice* the sum of the entire DIB; indeed Google could purchase any defense firm simply with on-hand cash.[26] Most troubling, however, is how the

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[23] Dwight D. Eisenhower, Farewell Address to the Nation (Jan. 17, 1961), http://mcadams.posc.mu.edu/ike.htm.

[24] Chuck Hagel, Opening Keynote before Defense Innovation Days (Sept. 3, 2014), http://www.defense.gov/Speeches/Speech.aspx?SpeechID=1877.

[25] *Id.*

[26] Sandra I. Erwin, *Managing the Defense Industry: Stalinism or Smart Business?*, Nat'l Def. Mag. (Nov. 2011), http://www.nationaldefensemagazine.org/archive/2011/

commercial sector has outpaced the DIB in terms of research and development (R&D) dollars—the lifeblood of ensuring the nation's technological military edge. The combined R&D expenditures for the top five defense companies is less than half of Google's annual R&D.[27] Google is not alone in this regard; other high-tech software firms like Apple and Microsoft possess equally eye-watering financial data. Indeed, the sum of these top five defense firms' R&D expenditures would not make a top 20 list for private company R&D investment.[28] Such research investment disparity sparks great concern in the high-tech area of RAS and calls into question DoD's ability to maintain its technical edge called for by the 2015 National Security Strategy.[29]

This disparity in autonomous research and development has grown more apparent with Google's rapid procurement of top robotics firms. Within the last three years, Google has gobbled up eight of the top RAS firms in the country—including many that were competing for the latest DoD-funded DARPA robotics challenge.[30] Google also hired some of the best robotics minds in the industry, including visionary Andy Rubin, creator of Android, who led a Google robotics team with a seemingly unlimited checkbook until October 2014.[31] Google and the other large, high-tech firms seemingly possess a magnetic pull on software engineering talent. Both government research laboratory and defense industry officials lament the difficulty in retaining talent in the face of Google job offers…especially in the area of autonomous systems.[32]

November/Pages/ManagingtheDefenseIndustryStalinismorSmartBusiness.aspx; William J. Lynn III, *The End of the Military-Industrial Complex*, Foreign Aff., Nov./Dec. 2014, at 104.

[27] Lynn, *supra* note 26, at 104; Michael Casey and Robert Hackett, *The 10 Biggest R&D Spenders World-wide*, Fortune (Nov. 17, 2014), http://fortune.com/2014/11/17/top-10-research-development/ (reporting that Google spent $8 billion in R&D in 2013 or 13.2% of its revenue).

[28] Lynn, *supra* note 26, at 104.

[29] *Id*.; 2015 U.S. National Security Strategy, *supra* note 1, at 8.

[30] Jacob Silverman, *Please, Don't Be Evil*, New Republic 2-13 (Feb. 17, 2014).

[31] Don Reisinger, *Google's Robot Venture: What Is Andy Rubin Trying to Achieve?*, eWeek (Dec. 5, 2013), http://www.eweek.com/mobile/slideshows/googles-robot-venture-what-is-andy-rubin-trying-to-achieve.html.

[32] Interviews with multiple defense research laboratory and industry officials, various times, Dec. 2014-Mar. 2015.

What makes Google's recent robotics purchases most troubling is that no one seems to know what innovative breakthrough or robotics market the company is trying to pursue. Tech watchers observing the Google robotic purchases have written articles asking "Why is Google Building a Robot Army?" and praying "Please, Don't Be Evil."[33] Google's corporate values make clear that it seeks to provide "a great service to the world," to "do things that matter," and above all "don't do evil."[34] Recently, the chief of Google X—the main innovation powerhouse within Google—reinforced the "don't do evil" informal mantra and stated the company's desire to "actively make the world…a radically better place" even if that forsakes opportunities for profit.[35] While some are comforted by these grandiose visions of goodness, DoD should be concerned if it fails to understand either Google's innovation intentions or its capabilities.

Likewise, DoD should not presume that Google will automatically heed a patriotic call to national service absent statutory compulsion. When purchasing Boston Dynamics, for instance, Google agreed to continue to honor existing government contracts that Boston Dynamics had made with DARPA, but made a point to articulate that it was "unlikely to pursue future ones."[36] Google, in fact, already has a strained relationship with the U.S. government and has resisted cooperation with the federal government in a variety of legal settings. For example, Google has fought compliance with a DOJ subpoena to release child pornography data and has challenged the gag order restricting Google's release of numbers of FISA national security requests.[37] Further, DoD should not expect that shareholders or public sentiment will sway Google to become more "patriotic" or complicit to U.S. government requests. While a publically traded company since 2004, the public stock shares were structured in such a way as to give the top three executives almost complete control of the Google's decisions with very little

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[33] Erik Sofge, *Why Is Google Building a Robot Army*, Popular 56 (March 2014); Silverman, *supra* note 30, at 8.

[34] Steven Levy, In the Plex: How Google Thinks, Works, & Shapes Our Lives 150 (2011).

[35] Ben Johnson, *Astro Teller Talks About Making Room for Failure*, Marketplace (March 19, 2014), http://www.marketplace.org/topics/tech/marketplace-sxsw/astro-teller-talks-about-making-room-failure.

[36] Lynn, *supra* note 26, at 104.

[37] Ken Auletta, Googled: The End of the World as We Know It 191 (2009); Kashmir Hill, *Google Challenges Government Gag Order on National Security Requests*, Forbes.com (June 18, 2013, 4:36 PM), https://www.forbes.com/sites/kashmirhill/2013/06/18/google-challenges-government-gag-order-on-national-security-requests/#74beb80c7ef9.

accountability to shareholders.[38] For this reason, Google is not as dependent upon defense dollars and may not be motivated by patriotism and profit as Ford and other DIB companies were during World War Two.

The U.S. government recently encountered such a sobering response when Apple refused to utilize its software development expertise to "unlock" an iPhone owned by one of the attackers in the San Bernardino, California massacre.[39] When FBI computer analysts were unable to open the attacker's iPhone, Department of Justice officials pleaded with Apple senior executives to create a "backdoor" into the device. When Apple refused, DOJ attorneys moved to compel Apple's cooperation using the All Writs Act.[40] A very public legal showdown ensued after the District Court initially granted the government's *ex parte* motion and Apple then publically refused to comply.[41] Although the government ultimately withdrew its motion citing a newfound ability to gain access to the shooter's phone, the debate is far from settled and litigation regarding access to other iPhones is on-going.[42] While this law enforcement example raises myriad legal issues,[43] the main takeaway for the U.S. government in the robotics and autonomy arena is the necessity for strong tools.

V. Government Needs Stronger Tools to Deal With Google in the Robotics Industry

Given the great number of unknowns about Google and other leading commercial technology companies coupled with the declining R&D investment by the DIB into RAS, the United States should take a serious look at a

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[38] Scott Cleland & Ira Brodsky, Search & Destroy: Why You Can't Trust Google Inc. 159 (2011).

[39] Eric Lichtblau & Katie Benner, *Apple Fights Order to Unlock San Bernardino Gunman's iPhone*, N.Y. Times (Feb. 17, 2016), www.nytimes.com/2016/02/18/technology/apple-timothe-cook-fbi-san-bernardino.html?_r=0.

[40] 28 U.S.C. § 1651 (2012).

[41] Eric Lichtblau & Katie Benner, *Apple and Justice Dept. Trade Barbs in iPhone Privacy Case*, N.Y. Times (Mar. 15, 2016), www.nytimes.com/2016/03/16/technology/apple-court-filing-iphone-case.html.

[42] Apple Inc's Motion to Vacate Order Compelling Apple Inc. to Assist Agents in Search and Opposition to Government's Motion to Compel Assistance at 3, *In re. Apple iPhone Seized During Execution of Search Warrant on Black Lexus IS200, Cal. License Plate 35KGD203*, (C.D. Cal. Feb. 25, 2016) (ED No. CM 16-10 (SP)).

[43] *Id.* (raising issues such as privacy, free speech in the writing of computer code, due process, forced conscription under All Writs Act absent Congressional authority).

range of approaches—from engagement to statutory compulsion—to ensure the nation can maintain its national security edge in the area of autonomous robotics. Furthermore, the United States cannot afford to play a passive role in understanding the deltas between commercial and DIB capability. While the defense sector can plan to play a "fast follower" role to U.S. or ally commercial robotics companies, DoD cannot afford strategic surprise in RAS with our enemies. Nor can we start asking the tough questions about leveraging commercial RAS capabilities once we have been on the receiving end of an autonomous weapon strike.

VI. U.S. Government Engagement with the Robotics Industry

The United States should start to address this issue on the engagement front. Specifically, the U.S. government should appeal to a common set of shared values with Google regarding autonomous systems. In the cybersecurity realm, Google has indicated a willingness to collaborate with the federal government on "the defensive side of things."[44] In that same vein, DoD should promote engagement with Google through events such as DARPA challenges designed to demonstrate robotics use in natural and man-made disasters. DoD could also recognize Google's future leadership in the autonomy arena and include Google in discussions about ethics and laws of war implications of autonomous systems in warfare. These types of engagements could enable DoD and Google to find overlapping areas of interest in autonomy and build trust and increased communication about robotic capabilities.

DoD should also encourage DIB companies to engage and partner with high-tech firms like Google across a range of RAS projects. Even if Google decided to assist DoD in furthering RAS technology during a time of national security crisis, Google would need partners from the DIB who are skilled in manufacturing, testing, and deploying weapon systems. Through dialogue and joint partnerships in the field of autonomous systems, these firms may find synergies in research endeavors—such as how to test autonomous systems cheaply and effectively. They may discover ways to capitalize on respective strengths, whether that be writing code for autonomous systems or effectively managing manned-machine interface controls. While DoD has limited authority to compel DIB firms and pure commercial firms to partner, DoD can do its part to facilitate interfaces through combined conferences on the state of autonomy or through participation in more traditional commercial "tech weeks."

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[44] Hill, *supra note* 37.

A. Presidential Assertion of Existing DPA Authorities

In addition to direct engagement, the President should assert his existing DPA authorities to both understand industry capabilities in RAS and to leverage Google personnel for national security purposes. First, the President should direct an industry study under his Title III DPA authority to understand the robotic industry capabilities and clarify which companies are capable of developing autonomous systems for future defense use. In particular, this study should seek to understand how the DIB can leverage innovations within the commercial robotics sector and determine whether enough R&D dollars (between defense and civil companies) are being invested in autonomy research. By identifying areas of overlap between the commercial and military sectors and ascertaining specific gaps in the military sector, DoD can target government R&D funds to either stimulate a joint effort to develop a RAS capability faster or to fund specific DoD research gaps.

The President should also utilize his other capabilities under Title VII of DPA to identify certain leaders and innovators within Google who could serve on the Nucleus Executive Reserve Board. Just as Oppenheimer appealed to the top physicists of his day to further science and participate in consequential efforts for America, so too can the President appeal to innovators and robotics experts within Google to apply their skill-sets for the betterment of national security and emergency response. Google executives have previously shown a willingness to assist the government and apply their skills in emergency situations such as the Haiti earthquake; thus, inclusion in a formal executive body charged with aiding in a range of national emergencies may intrigue some Google and other leading technology company leaders.[45]

B. Proposed Amendments to Existing Statutory Authorities

While Title III and VII of the DPA can be applied easily to better our national security posture with respect to autonomous systems, Congress should also clarify the language of Title I in the event the President must compel Google, or similar company, to assist in the manufacturing of autonomous systems.[46] Specifically, it remains unclear whether the government can force a company like Google, which does not make any goods, to produce a product

[45] Levy, *supra note* 34, at 325-26.

[46] As demonstrated by *Youngstown*, such compulsion lies outside the President's authority even in a time of war absent specific powers granted to the President by Congress. *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 759 (1952).

just because the company may have the know-how. While the statutory language implies that the President can require performance under contracts for any entity he "finds capable" of such performance, the statute expressly denies the President the ability to require purely employment contracts.[47] Thus, even though Google may have purchased every major cutting edge robotics company in the industry, the question becomes whether the President could find a company legitimately "capable" of producing a product when it currently sells no product nor accepts contracts for production of goods.[48] Or would the courts view this as a government attempt to simply "employ" Google engineers for design work. The applicable regulations appear to support an optional rejection by Google, as 15 C.F.R. 700.13(c)(2) allows a company to reject the government's priority contract in circumstances where the company does not supply the item or service requested.[49]

The enforcement becomes potentially even more problematic because the DPA is premised around the ability of the President to reassign "priorities" of contracts by jumping in the front of the production line.[50] In Google's case, they do not currently accept production contracts for robotics nor service contracts to develop software for other companies. Furthermore, to the extent Google retains its autonomous advances as trade secrets versus patents, the government may not have any grounds to assume that Google has either developed or is capable of producing a given technology.[51] In all, the ability for the government to exercise the Title I power of the DPA toward Google remains unclear.

The SSA possesses a similar lack of clarity for this issue. Like the DPA, the SSA allows the president in times of national security crisis to place an "order" with a company (like Google) based on a good faith belief that it could produce such an item. The SSA requires an additional step of having Congress specifically authorize procurement of the needed autonomous

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[47] 50 U.S.C. § 4511 (2017); Littlejohn, *supra note* 13, at 5.

[48] 50 U.S.C. § 4511 (2017); Littlejohn, *supra note* 13, at 6 n.27.

[49] 15 C.F.R. § 700.13(c)(2) (2017).

[50] 50 U.S.C. § 4511(a) (2017); Stuart B. Nibley, *Defense Production Act Speeds Up Wartime Purchases*, Nat'l Def., June 2006, at 58.

[51] Though in the early years Google notably deplored patents and preferred trade secrets, this approach appears to have changed. Antonio Regalado, *Google's Growing Patent Stockpile*, MIT Tech. Rev. (Nov. 29, 2013) http://www.technologyreview.com/news/521946/googles-growing-patent-stockpile/.

system.[52] Utilization of the SSA in this context, however, encounters the same concern as it is premised on the operation of a "facility capable of producing such articles or materials."[53] This flaw becomes more apparent when considering the stated remedy for noncompliance. The SSA provides no ability for the government to obtain a federal injunction to enforce the order; instead, the government's statutory remedy is to "take over" the needed factory or plant. In the context of RAS and Google, no manufacturing facility exists. The reality is that the government doesn't need a Google factory…it needs access to the brainpower or talent Google possesses to produce elegant software solutions to thorny autonomy problems. Not only does a "take-over" model of the SSA not work practically for the RAS-Google issue, but no statutory authority exists to force civilian employment in a particular area—even for national security.[54]

VII. Conclusion

In light of minimal defense industrial base R&D investment and the absorption of the best robotics minds into Google, Congress should amend the DPA and SSA language to clarify its applicability to a company clearly capable of production who has yet to produce a product or accept contracts. Congress should also specifically address how the DPA and SSA language applies to software development versus hardware manufacturing firms, and whether it matters if the high-tech firm never contracts its software services out for bid. The statute should take care to distinguish between when the government can require specific performance for a software development contract and when such action crosses the line into prohibited compulsory employment.

U.S. national security depends upon DoD's ability to field innovation and cutting edge technologies into our defense portfolio. With the decline of research dollars in the traditional DIB and the growth of powerful commercial companies like Google overtaking new tech areas like autonomy, the United States government must critically look at its approach to engaging, leveraging, and at times directing commercial markets. By updating our historical and present day tools to meet tomorrow's future challenges in developing and

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[52] 50 U.S.C. § 3816(a) (2017); Littlejohn, *supra note* 13, at 6 n.27.

[53] 50 U.S.C. § 3816(a) (2017).

[54] In fact, the DPA specifically prohibits mandatory employment contracts. Littlejohn, *supra note* 13, at 5.

fielding robotics and autonomous systems, the United States can be armed once again to bring the entire arsenal of democracy to bear in furtherance of our national security objectives.

ARE JROTC AND CAP ON A COLLISION COURSE WITH CROC?

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I. Introduction

For compelling humanitarian and practical reasons, international law prohibits the use of very young people in combat and forbids their joining the armed forces of a state.[1] In cruel and flagrant violation of the law of war, child soldiers have been deployed to commit atrocities, and children have been themselves injured or killed by performing dangerous tasks or otherwise abused.[2] This spectacle has led to several international agreements designed to ensure that only people of sufficient maturity are conscripted, serve in a nation's armed forces, or participate in combat. Most notable among these are the Convention on the Rights of the Child (CROC)[3] and its Optional Protocol (OP) on the Involvement of Children in Armed Conflict.[4] The United States is not a party to CROC, but is a signatory of the OP.

In pursuing important humanitarian and policy goals, the letter of the law may not always coincide precisely with the harm the law is intended to prevent. This article evaluates suggestions from the American Civil Liberties Union (ACLU) and other commentators[5] that military-related youth activities sponsored by the United States, such Junior Reserve Officers Training Corps (JROTC) and the Civil Air Patrol Cadet program (CAP), implicate international prohibitions on child soldiers. The issue is particularly serious because the Child Soldier Accountability Act of 2008 provides for up to 20

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[1] *See, e.g.,* Children in Armed Conflict: Interim Report of the Special Representative of the Secretary General, Mr. Olara A. Otunnu, submitted Pursuant to General Assembly Resolution 52/107, at 9 E/CN.4/1998/119 (Mar. 12, 1998) ("An alarming trend in recent years is the increasing participation, direct and indirect, of children in armed conflict. It is estimated that up to a quarter of a million children under the age of 18 are serving as combatants in government armed forces or armed opposition groups in ongoing conflicts. Indeed, the development and proliferation of lightweight automatic weapons has made it possible for very young children to bear and use arms. Many more children are being used in indirect ways which are more difficult to measure, such as cooks, messengers and porters. Children have also been used for mine clearance, spying and suicide bombing.").

[2] For a recent article on the topic, see Michela Wrong, *Making a Murderer in Uganda*, Foreignpolicy.com, Jan. 20, 2016, http://foreignpolicy.com/2016/01/20/making-a-murderer-dominic-ongwen-uganda-icc/.

[3] G.A. Res 45/25, Convention on the Rights of the Child (Nov. 20, 1989) [hereinafter CROC], http://www.ohchr.org/Documents/ProfessionalInterest/crc.pdf.

[4] Optional Protocol to the Convention on the Rights of the Child on the Involvement of Children in Armed Conflict, G.A. Res. 54/263, U.N. Doc. A/RES/54/54/263 (May 25, 2000) [hereinafter OP].

[5] *See infra* notes 45, 55-57 and accompanying text.

years in prison for those who recruit or use those under the age of 15 in a military force.[6]

On the one hand, these volunteer youth activities, which never involve combat, are a far cry from the travesty of children being exposed to the physical and psychological risks of warfare. Cadets in JROTC or CAP are not legally part of the U.S. armed forces.

However, JROTC and CAP involve training and operational activities, to include the use of weapons, by children as young as 12 who wear U.S. military uniforms. In addition they are often supervised, directly or indirectly, by active or retired military members and sometimes perform humanitarian or search and rescue missions at the direction of the military. Furthermore, military regulations provide that achievement in JROTC or CAP will allow young people to enter the military at an advanced rank, suggesting that the activities constitute military training. Accordingly, there is a non-frivolous argument that international agreements to which the United States is a party implicate such activities.

Part I of this article describes the international law restricting the use of children below a certain age in the armed forces of a nation, in particular the Optional Protocol on the Involvement of Children in Armed Conflict to the Convention on the Rights of the Child. Part I also describes CAP and JROTC, U.S. government-created programs involving young people which are affiliated with the United States military.

Part II explores whether the participation of children between the ages of 12 and 18 in CAP and JROTC cadet programs potentially violates international law. It argues that government activities involving children may implicate the treaties even if young people are not as a formal legal matter members of the armed forces; faithful application of international law requires a functional analysis of the duties of particular institutions and individuals participating in them. It is also clear that activities involving training and education can implicate the treaties, in addition to operational service and performance of duty.

Nevertheless, applying a broad, functional analysis, the article concludes that the youth programs are not prohibited by international law. Cadets are not formally in the armed forces nor do they perform military functions,

[6] 18 U.S.C. § 2442 (2012).

which would make them de facto part of the military. Importantly, their activities do not expose them to harm or work that would otherwise be performed by military forces.

It is true that the programs may well be designed to encourage young people to consider military service and in many cases, cadets end up joining the armed forces.[7] It is also true that international law prohibits voluntarily or involuntarily "recruiting" children under certain ages into armed forces, as well as, utilizing them in combat. However, this article proposes that the term "recruiting" as used in international law means actual induction, enlistment, or otherwise becoming part of the armed forces. It does not cover advertising, provision of information, or sponsoring activities designed to encourage patriotism or favorable attitudes toward military service—even if all of these things may encourage children, months or years later when they become adults, to enter the armed forces. Therefore, while JROTC and CAP include training which may be useful in a military career, and may make military service appear attractive, the same can be said for high school education itself or membership in the Boy/Girl Scouts. The article concludes that CAP and JROTC violate neither the letter nor the spirit of international law.

II. International Law and National Cadet Programs

A. Child Soldiers Under International Law.

For decades, international treaties have restricted the voluntary enlistment or conscription of children into the armed forces, as well as, the use of children in combat. The Convention on the Rights of the Child set the minimum age of 15 for participation in direct hostilities[8] or recruitment into the armed forces.[9] The Rome Statute of the International Criminal Court[10] and

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[7] "Elda Pema & Stephen Mehay, *The Effect of High School JROTC on Student Achievement, Educational Attainment, and Enlistment*, 76 S. Econ. J. 533, 543 (2009) (stating "JROTC participants are 75–150% more likely to enlist" than non-participants.).

[8] CROC, *supra* note 3, art. 38, ¶ 2.

[9] *Id.* at ¶ 3.

[10] Under the Rome Statute of the International Criminal Court, war crimes include "conscripting or enlisting children under the age of fifteen years into national armed forces or using them to participate actively in hostilities" Rome Statute of the International Criminal Court, opened for signature 17 July 1998, 2187 UNTS 3 (entered into force 1 July 2002), art. 8(2)(b)(xxvi), https://www.icc-cpi.int/nr/rdonlyres/ea9aeff7-5752-4f84-be94-0a655eb30e16/0/rome_statute_english.pdf, (applicable to international

the Additional Protocols to the 1949 Geneva Conventions also use 15 as the critical age.[11] The International Committee for the Red Cross has concluded that the principle that "[c]hildren must not be recruited into armed forces or armed groups" has become a rule of customary international law.[12] In addition, the Child Soldiers Accountability Act of 2008 prohibits recruiting or using children under 15 as soldiers.[13]

Many commentators and NGOs also believed that 15- and 16-year-olds should also be excluded from combat.[14] The United Nations Commission on Human Rights began the process of drafting an additional agreement in 1994; it became the Optional Protocol to the CROC on the Involvement of Children in Armed Conflict. As of February 2017, the Optional Protocol had been adopted by the United States and 166 other nations.[15] Another 13 have signed but not ratified it.[16] It provides separate rules for participation in hostilities, conscription, and voluntary recruitment.[17]

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armed conflict); *Id.* at art. 8(2)(e)(vii) ("conscripting or enlisting children under the age of fifteen years into armed forces or groups or using them to participate actively in hostilities" (applicable to internal armed conflict).

[11] Protocols Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), June 8, 1977, art. 77(2), 1125 U.N.T.S. 3, 7. *See also* Michael J. Dennis, *The ILO Convention on the Worst Forms of Child Labor*, 93 Am. J. Int'l L. 943, 944 (1999) ("Several delegations, including the worker members and the African government group, proposed that the Convention impose an outright ban on the use of children (i.e., persons under eighteen) in all kinds of military activities. They argued that activities such as military training and participation in armed conflict necessarily jeopardize the health or safety of children and should therefore be considered as one of the worst forms of child labor.").

[12] Jean –Marie Henckaerts et al., International Committee of the Red Cross, Customary International Humanitarian Law 482(Rule 136) (2005).

[13] 18 U.S.C. § 2442(a) (2012).

[14] Mary Robinson, *Genocide, War Crimes, Crimes Against Humanity*, 23 Fordham Int'l L.J. 275, 282 (1999) ("I strongly support the raising of the age limit for recruitment of children into armed forces from fifteen to eighteen and I call upon governments—including the United States—to adopt the Optional Protocol to the Convention on the Rights of the Child, which would raise the age limit to 18.").

[15] United nations Human Rights Office of the High Commissioner, *Optional Protocol to the Convention on the Rights of the Child on the Involvement of children in Armed Conflict*, http://indicators.ohchr.org/ (last updated Feb. 20, 2017).

[16] *Id*.

[17] Nsongurua J. Udombana, *War Is Not Child's Play! International Law and the Prohibition of Children's Involvement in Armed Conflicts*, 20 Temp. Int'l & Comp. L.J. 57 (2006) ("The wind was singing in the branches and leaves were echoing when the Optional Protocol to the Convention on the Rights of the Child on the Involvement of

Regarding participating in combat, under Article 1, states are required to "take all feasible measures to ensure that members of their armed forces who have not attained the age of 18 years do not take a direct part in hostilities."[18]

Article 2 restricts conscription of children, requiring states to "ensure that persons who have not attained the age of 18 years are not compulsorily recruited into their armed forces."[19]

While there was consensus that those under 18 should not be exposed to combat or conscripted, the drafters of the Optional Protocol could not agree on a fixed age for voluntary recruitment.[20] Instead, Article 3 sets out

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Children in Armed Conflicts ("CRC Protocol") entered into force on February 12, 2002.2 That date heralded the beginning of an end to the heinous practice of recruiting children, which the CRC Protocol defines as persons less than eighteen years of age, 3 into armed forces by state and non-state actors to fight wars that they do not even understand.").

[18] OP, *supra* note 4, at art. 1.

[19] *Id.* at art. 2.

[20] One informed commentator explained:

> [M]ost countries around the world wanted to ban the recruitment of any individual under the age of 18. However, because the United States recruits students in high school, the U.S. military insisted that the age be reduced to 17. This position put the United States in the posture of preventing an international consensus and seeming to be in league with those who were not committed to banning this terrible abuse at all. It was Ed Cummings who originated the idea of allowing voluntary recruitment of 17 year olds but not allowing them in combat until they were 18, creating an international consensus that put the focus where it always should have been, on militias that conscript 12, 13 and 14 year olds.

Honorable Tom Lantos, *Extension of Remarks by Representative Tom Lantos of California February 28, 2006 in the House of Representatives*, 38 Geo. Wash. Int'l L. Rev. 637, 639 (2006). *See also* Jo Becker, *From Opponent to Ally: The United States and Efforts to End the Use of Child Soldiers*, 22 Mich. St. Int'l. L. Rev. 595 (2014) (describing U.S. ratification process); Steven Freeland, *Mere Children or Weapons of War–Child Soldiers and International Law*, 29 U. La Verne L. Rev. 19, 36 (2008) ("While the terms of the 2000 Children in Armed Conflict Protocol raise the minimum age to eighteen for non-government armed forces, they fall short of the standards set by some of the previous instruments—the 1999 ILO Convention and the African Charter—in relation to recruitment into State armed forces. In this regard, the 2000 Children in Armed Conflict Protocol fails to respond to the magnitude of the problem with appropriate prohibitions and restrictions on the recruitment of Child Soldiers."); Steven Freeland, *Child Soldiers and International Crimes–How Should International Law Be Applied?,* 3 N.Z.J. Pub. & Int'l L. 303, 316 (2005) ("Articles 2 and 3 of the Children in Armed Conflict Protocol have the combined effect of raising the minimum age of compulsory recruitment to 18 years, but allowing for voluntary recruitment at a younger age. States are obligated to raise—to some undefined level—the age of voluntary recruitment from 15 years. This article has previously highlighted the difficulties in regarding much of the

several substantive and procedural safeguards.[21] Paragraph 1 requires states to "raise the minimum age for the voluntary recruitment of persons into their national armed forces" from the age of 15 established by the CROC itself.[22] Paragraph 2 requires states to "deposit a binding declaration upon ratification" identifying the minimum age their national armed forces will require.[23] The U.S. ratification reserved the right to recruit children 17 years of age.[24] Under Paragraph 3, if a state permits voluntary recruitment of those under 18, that state must ensure that recruitment is knowing and voluntary, and based on parental consent.[25] Notably, the prohibition on participation in combat applies to those who voluntarily enlist. Accordingly, while 17-year-olds may enlist in the U.S. armed forces, they must be shielded from participation in hostilities.[26]

The protocol also creates an exception for military schools: "The requirement to raise the age in paragraph 1 of the present article does not apply to schools operated by or under the control of the armed forces of the

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"voluntary" recruitment that does occur as a genuine expression of the child's free will and, in any event, in many cases it will be difficult to prove a child's age when he or she volunteers.").

[21] *See also* Rose Mukhar, *Child Soldiers and Peace Agreements*, 20 Ann. Surv. Int'l & Comp. L. 73, 83 (2014) ("While the Child Soldiers Protocol reminds member states that children under the age of eighteen are entitled to special protection, it does not require a minimum age of eighteen for voluntary recruitment into the armed forces.").

[22] OP, *supra* note 4, at art. 3, ¶ 1.

[23] *Id*. ¶ 2.

[24] Declaration and Understandings by the United States to the Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict, 25 May 2000, http://www.icrc.org/ihl.nsf/WebSign?ReadForm&id=595&ps=P.

[25] OP, *supra* note 4, at art. 3, ¶ 3.

[26] As one commentator explained, the Optional Protocol:

> does not, however, preclude voluntary recruitment of sixteen- and seventeen-year-olds into armed forces. An express Protocol provision allowed the United States to sign and ratify the Optional Protocol even though it has not yet ratified the underlying Convention on the Rights of the Child. Thus, the key change in policy for the United States will be that seventeen-year-olds may still voluntarily join the armed forces, but must be kept out of combat until age eighteen.

Mark E. Wojcik, et al., *International Human Rights*, 35 Int'l Law. 723, 725-26 (2001). *See also* Major John T. Rawcliffe, *Child Soldiers: Legal Obligations and U.S. Implementation*, Army Law., Sept. 2007, at 1, 3 ("To ensure that all feasible measures are taken to ensure that those still seventeen when assigned to their first post-training unit do not take a direct part in hostilities, the U.S. military services have adopted implementation plans. All the service policies well exceed the requirement to take 'all feasible measures' to avoid 'direct participation' in hostilities").

States Parties."[27] Thus, some forms of military education may take place below the age required for enlistment.

B. CAP and JROTC

The U.S. armed forces operate or cooperate with several programs for young people, most prominently the Junior Reserve Officers Training Corps (JROTC), and the Civil Air Patrol (CAP) cadet program. All five military services maintain JROTC units.[28] Typically, they are located in high schools and staffed by retired service members although the law authorizes the detail of active duty military members.[29] The program is funded by an appropriation from Congress, however, host schools must pay the instructors the difference between their retired pay and what they would have earned if still on active duty.[30]

CAP is a congressionally chartered public benefit corporation.[31] Its three statutory missions are aerospace education, emergency services, and the cadet program.[32] Most of its funding also comes from Congress.[33] When it performs missions for the United States, it is the U.S. Air Force Auxiliary[34] and deemed part of the Total Force by U.S. Air Force doctrine.[35] As of 2015,

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[27] OP, *supra* note 4, at art. 3, ¶ 5. Note, however, that military schools may be legitimate targets under the law of war. *See* Gregory Raymond Bart, *The Ambiguous Protection of Schools Under the Law of War-Time for Parity with Hospitals and Religious Buildings*, 40 Geo. J. Int'l L. 405, 436 (2009). Accordingly, allowing young people to attend military schools may put them in harm's way.

[28] 10 U.S.C. § 2031(a)(1) (2012) ("The Secretary of each military department shall establish and maintain a Junior Reserve Officers' Training Corps . . . .").

[29] *Id.* § 2031(c).

[30] *Id.* § 2031(d).

[31] *Id.* § 9448(a)(1).

[32] 36 U.S.C § 40302 (2012).

[33] CAP Financial Report 2014, at 48, http://www.capmembers.com/media/cms/CAP_financial_report_2014_web_small_DAF2B2CE7FA34.pdf (reflecting $37 million in expenditures for program services, and $36 million in income from government appropriations, grants, and contributions).

[34] 10 U.S.C. § 9442(a) ("The Civil Air Patrol is a volunteer civilian auxiliary of the Air Force when the services of the Civil Air Patrol are used by any department or agency in any branch of the Federal Government.").

[35] LeMay Center for Doctrine, "Leadership," https://doctrine.af.mil/download.jsp?filename=V2-D04-Total-Force.pdf. ("[T]he total force includes the Civil Air Patrol, as the official Air Force Auxiliary.").

CAP has 23,000 cadets in squadrons across the country.[36] Its members are authorized to wear U.S. Air Force uniforms with distinctive insignia.[37] It is supervised by a Board of Governors, some of whom are appointed by the Air Force and others who are elected by CAP members.[38] However, the Department of the Air Force is the ultimate authority over CAP by virtue of its statutory authority to issue regulations governing CAP activities.[39]

Even an informed observer might mistake a group of mid-to-late teen CAP or JROTC cadets, marching in formation wearing immaculate U.S. military uniforms, for young members of the American armed forces. But CAP and JROTC are not part of the armed forces of the United States as defined in Title 10 of the United States Code,[40] and likewise, CAP and JROTC cadets are civilians.[41]

At the same time, cadet activities are not wholly independent of the military. Neither CAP nor JROTC are, as a formal matter, part of the military recruiting apparatus, but it may well be that Congress funds these organizations in large part because they function as recruiting programs.[42] CAP and

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[36] CAP Financial Report, *supra* note 2, at 11.

[37] U.S. Dep't of Air Force, Instr. 10-2701, Organization and Function of the Civil Air Patrol, (31 July 2014) [hereinafter AFI 10-20701] at ¶ 1.3 ("Although CAP is not a military service, it uses an Air Force-style grade structure and its members may wear Air Force-style uniforms when authorized . . . .").

[38] 10 U.S.C. § 9447.

[39] *Id.* § 9448(b).

[40] *Id.* § 101(a)(4) ("The term 'armed forces' means the Army, Navy, Air Force, Marine Corps, and Coast Guard.") .

[41] AFI 10-2701, *supra* note 37, ¶ 1.3 ("CAP is not a military service, [and] its members are not subject to the Uniform Code of Military Justice . . . ."). Of course, a cadet may have military status by virtue of independent enlistment in some branch of the armed forces.

[42] For example, the legislative history of the statute making the Civil Air Patrol permanent after World War II explains:

> One of the main missions of Civil Air Patrol is to interest the youth of the country in aviation. . . . The Department of the Air Force consider this training program of great potential importance to civil and military aviation. Civil Air Patrol has been of great assistance to the Air Force in their recruiting program.

1948 U.S.C.C.A.N. 1606, 1607-08 (quoting S. Rep. No. 80-1374 (1948)). Air Force Chief of Staff Norton Schwartz testified before Congress in 2009:

> There are a number of programs that help I think to grow good citizens. I think that's fundamentally what they're about, and they have the side benefit of perhaps increasing the propensity of the young to serve in the armed forces or elsewhere in

JROTC familiarize young people with the armed forces, educate them about military careers, and encourage them to think about military service as an honorable way of life. The Army JROTC regulation declares that one purpose of the program is to teach "basic military skills."[43]

Most cadet activities are educational. Cadets study military history, visit military installations, participate in lectures with current or former members of the armed forces, and engage in physical training. The programs also include marksmanship training.[44] Additionally, cadets may engage in

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> public service. Civil Air Patrol is one, Junior ROTC at the high schools is another, both of which are excellent programs I think that focus on citizenship but increase the propensity to serve.

Hearing, House Committee on Appropriations, Subcommittee on Defense (June 3, 2009) (2009 WL 1566892). Reports on appropriations bills make no bones about the connection between JROTC and recruiting:

> The committee finds that the Junior Reserve Officer Training Corps (JROTC) program in high schools has a significant and important benefit to the readiness and recruitment efforts of the United States Armed Forces. The committee encourages the military services to maximize the number of JROTC opportunities available in high schools; or, if a JROTC program is not feasible, the opportunity for a National Defense Cadet Corps program.

H.R. Rep. No. 114-102, at 136 (2015) (On National Defense Authorization Act for Fiscal Year 2016, H.R. 114-1735). Additionally notable:

> The committee strongly supports the Junior Reserve Officer Training Corps (JROTC) program. The committee recognizes that there is a direct relationship between the JROTC program and recruitment. Strong testimony from the Joint Chiefs of Staff this year confirmed this relationship. More than half of the young men and women who voluntarily participate in this high school program affiliate with the military in some fashion after graduation.

S. Rep. No. 106-50, at 312-13 (1999) (On National Defense Authorization Act for Fiscal Year 2000, Pub. L. No. 106-65).

[43] 32 C.F.R. § 542.4 (2016) ("The Army JROTC/NDCC objectives are to develop in each cadet—(a) Good citizenship and patriotism. (b) Self-reliance, leadership, and responsiveness to constituted authority. (c) The ability to communicate well both orally and in writing. (d) An appreciation of the importance of physical fitness. (e) A respect for the role of the US Army in support of national objectives. (f) A knowledge of basic military skills.").

[44] U.S. Dep't of State, Bureau of Democracy, H.R and Lab., List of issues concerning additional and updated information related to the consideration of the Second Periodic Report of the United States (CRC/C/OPAC/USA/2) Written replies of the United States of America, ¶¶ 14, 18 (2012), http://www.state.gov/j/drl/rls/201652.htm (noting that JROTC and CAP have optional marksmanship programs); U.S. Air Force Auxiliary Civil Air Patrol, CAP Reg. 52-16 (E) (1 Nov. 2015)[hereinafter CAP Reg.] ¶ 2-9(b) ("Cadets may participate in firearm training if the wing commander approves the training facility and sponsoring personnel or agency in advance and in writing. Training must be

some community-service-related operational activities. For example, properly trained CAP cadets may be members of search and rescue teams assigned by the Air Force to find missing aircraft.

JROTC and CAP training is recognized as related to military service. JROTC and CAP cadets who complete a certain portion of the cadet program are permitted to enlist in the military at an advanced pay grade.[45] The CAP and JROTC cadet programs, then, raise a question. They are not technically part of the armed forces of the United States. Yet, they have a reasonably close connection to the armed forces. The next section will address whether cadets, in any sense, are child soldiers.

III. Are JROTC and CAP Cadets Child Soldiers?

A. Formally and Practically, Cadets are Not Members of the Armed Forces.

Some commentators have suggested that allowing those under age 17 or 18 to participate in cadet programs violates the Optional Protocol[46] and

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sponsored and supervised by military personnel qualified as range safety officers; local law enforcement officers qualified as firearms instructors; or National Rifle Association, National Skeet Shooting Association or Amateur Trap Shooting Association firearms instructor"); *NC High School Builds Indoor Shooting Range for JROTC Program*, Fox News Insider (April 24, 2016), http://insider.foxnews.com/2016/04/24/north-carolina-high-school-builds-indoor-shooting-range-jrotc; *2017 JROTC Air Rifle Service Championship*, Civilian Marksmanship Program, http://thecmp.org/air/jrotc-air-rifle-national-championship/ (describing national multi-service JROTC championship).

[45] *See infra* note 51 and accompanying text.

[46] Nancy Morisseau, Note: *Seen but Not Heard: Child Soldiers Suing Gun Manufacturers Under the Alien Tort Claims Act*, 89 Cornell L. Rev. 1263, 1283 (2004) ("The United States was the strongest opponent of raising the minimum age for child participation in armed conflict to eighteen. Although comprising less than one-half of one percent of their armed forces, the United States's practice of recruiting seventeen-year olds, and the sheer number of Junior ROTC programs operating in high schools throughout the country, would directly violate such an age restriction."); *see also* Shannon McManimon, *Protecting Children From War: What the New International Agreement Really Means*, y&m online media, American Friends Service Committee National Youth & Militarism Program (Mar. 2000), http://cyberspacei.com/jesusi/focus/co/cows/afsc/youthmill/html/news/mar00/childsold_prt.htm, ("Government spending on pre- and para-military programs for youth has expanded dramatically in the last decade. There is a growing debate in Washington legislative circles about whether pre-enlistment military-run youth programs are more effective recruitment tools (in terms of both cost and productivity) than traditional recruiting programs. Programs such as the Civil Air Patrol, Project Focus,

the U.N. Committee on the Rights of the Child has inquired about U.S. cadet programs.[47] To be sure, if a nation's military cadet program made children a formal part of their armed forces, that might well violate the Optional Protocol. However, the opposite is not necessarily the case; simply because children are legally civilians cannot be wholly dispositive. If manipulation of details of domestic law could make the Optional Protocol inapplicable, then the agreement would have a fatal loophole. For example, if formal law were conclusive, it would be permissible, notwithstanding the clear prohibitions of Articles 1 and 2 of the Optional Protocol, for states to draft children not into their "armed forces" proper, but into the "National Labor Service," say, or even the "National Police Service" and then use those formations in combat or quasi-combat roles. Accordingly, if international obligations are to have any effect, "armed forces" must have a functional, operational definition, independent of the vagaries and technicalities of domestic law.[48]

Nor is it dispositive that CAP and JROTC cadets do not receive combat training or have combat duties. In general, even military members who do not have a combat function and may never carry weapons—medical personnel, chaplains, cooks and bakers—are not for that reason any less subject to military discipline, authority, and risk. In addition, it would violate the spirit and the letter of international law to use children even in unarmed roles where they were exposed to combat. International law is concerned both with the harm to children from participating in acts of violence and from being injured themselves. Concretely, it may be that, without violating the Optional Protocol, children under 18 could be drafted into, or allowed to volunteer for, a National Emergency Medical Services Corps, trained as medical technicians, and asked to provide services in the community.[49] However,

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the Young Marines, and JROTC have as their primary targets young people under the age of 18, sometimes as young as elementary school.").

[47] Written replies of the United States of America, *supra* note 44.

[48] Geneva Convention Relative to the Treatment of Prisoners of War, Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S.135 at art. 13(1-2).
(Beneficiaries of the Convention, include "[m]embers of the armed forces of a party to the conflict as well as members of militias or volunteer corps forming part of such armed forces, [and] [m]embers of other militias and members of other volunteer corps," so long as they are commanded, uniformed, carry arms openly, and comply with the laws of war.").

[49] This functional interpretation is consistent with domestic law. *See, e.g.,* Child Soldiers Accountability Act of 2008, 18 U.S.C. 2442(d)(2) (2012) provides: "The term 'armed force or group' means any army, militia, or other military organization, whether or not it is state-sponsored, excluding any group assembled solely for nonviolent political association."

it would be impermissible if the Corps was attached to the nation's army and used in combat operations. In that event, children would be exposed to the risks of combat even if they were not required to engage in it themselves.[50]

Nevertheless, even under a broad, practical definition, cadets are not part of the armed forces. Cadets do not participate in combat, and they are never deployed or used to support combat operations. Cadets do sometimes perform functions of use to the United States, but they are civil, community functions rather than military in nature. Emergency services and disaster relief missions performed by cadets are not traditional military activities, or substitutes for military forces, other than to the extent that they are substitutes for firefighters, EMTs, and other civilian personnel.

One defining characteristic of military service is legal compulsion.[51] Whether conscripted or volunteers, military members are obligated to carry out lawful orders regardless of risk. This loss of autonomy is a significant reason for the restriction of military service to those old enough to appreciate the nature of the obligation. By contrast, cadets may quit at any time. Federal law does not subject them to the Uniform Code of Military Justice, or otherwise obligate them to obey orders on pain of punishment. (Of course, they may be kicked out of the program for failing to obey a legitimate instruction, just as a student can be kicked out of the school band, soccer team, or any other club or extracurricular activity for violation of its rules.) Accordingly, even if cadets were put under the supervision of a rogue commander, no legal order could oblige them to perform combat or combat support duties in a way different than could a direction of a rogue little league coach. The lack of legal compulsion suggests that their participation is not equivalent to service in an armed force.

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[50] That being said, the Optional Protocol provides that those under 18 should not "take a direct part" in hostilities. OP, *supra* note 4, at art. 1. One hopes that working in a combat zone, even in a non-combat role, would constitute "taking a direct part" because of the potential effect on the child's mental and physical well-being. But the term has some ambiguity. *See* Michael E. Guillory, *Civilianizing the Force: Is the United States Crossing the Rubicon?*, 51 A.F. L. Rev. 111, 119 n.55 (2001). The Child Soldiers Accountability Act provides that "[t]he term 'participate actively in hostilities' means taking part in—(A) combat or military activities related to combat, including sabotage and serving as a decoy, a courier, or at a military checkpoint; or (B) direct support functions related to combat, including transporting supplies or providing other services." 18 U.S.C. § 2442(d)(1).

[51] This partially explains the Optional Protocol's concern that voluntary recruits "are fully informed of the duties involved in such military service." OP, *supra* note 4, at art. 3 ¶ 3(C).

The strongest argument for considering CAP and JROTC as part of the armed forces is the training component. CAP and JROTC experience can directly translate to the form of military promotion if a cadet later enlists.[52] In spite of the absence of either danger or compulsion, for purposes of international law, the question remains whether CAP and JROTC are de facto training units of the U.S. armed forces. If so, the cadet programs are arguably protected to some degree by the exception for "schools operated by or under the control of the armed forces," which are not required to raise the age of voluntary recruitment above the age of 15 set in the CROC.[53] CAP is not a "school," however, and even a JROTC program located in a high school is not, itself, a school. Additionally, even if JROTC and CAP are somehow close enough to a school to benefit from the exception, because they allow students under age 15 to join, the question of whether cadet programs constitute military training remains.

Functionally, the training offered to cadets is insufficient to make them a de facto component of the armed forces. First, while JROTC and CAP accomplishments can earn promotions, so can other clearly non-military activities, such as completion of college units before enlisting,[54] or achievement in Boy or Girl Scouts.[55] Cadet training, like college or Scouting, sig-

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[52] U.S. Dep't of Air Force, Instr. 36-2002, Regular Air Force and Special Category Accessions (1 Oct. 2012) [hereinafter AFI 36-2002] at 52 (Attach. 4) ¶ A4.1.5.5 (CAP); *Id.* at ¶ A4.1.5.4 (2 years of college or high school ROTC allows enlistment at E-2); *Id.* at ¶ A4.1.5.7 (3 years of JROTC allows enlistment at E-3); U.S. Dep't of Army, Reg. 601-210, Personnel Procurement: Active and Reserve Components Enlistment *Program* (12 March 2013),) [hereinafter AR 601-210] at ¶ 2–18 (3)-(4) (ROTC and JROTC may enlist at PV2); *Id.* at ¶ 2-18 (10) (CAP cadets may enlist at PV2); U.S. Dep't of Homeland Sec., Coast Guard Recruiting Manual, COMDTINST M1100.2F (Mar. 2016) at 3-3 (Table 3-1).

[53] At least one member of the group that drafted the Optional Protocol suggested that military schools where the pupils were not military members simply did not implicate the concern about child soldiers: if "schools [were] merely educational and did not imply recruitment into the armed forces, there was no need to have any reference to them in the protocol and even less in the article on voluntary recruitment." U.N., Educ., Sci. & Cul. Org. (UNESCO), Rights of the Child: Report of the working group on a draft optional protocol to the Convention on the Rights of the Child in involvement of children in armed conflicts on its Sixth session 16, ¶ 65 E/CN.4/2000/74 (Mar 27, 2000).

[54] AFI 36-2002, *supra* note 52, at ¶ A4.1.5.3.3 (enlistment at E-2 for 30 quarter hours of credit; E-3 for 67 quarter hours of credit); AR 610-210, *supra* note 52, ¶ 2-18*a* (6-7).

[55] AFI 36-2002, *supra* note 52, at ¶ A4.1.5.6 (Eagle Scout or Gold Palm Award recipient may enlist at E-2.); AR 610-210, *supra* note 52, ¶ 2-18*a* (12-13).

nals interest, knowledge, and ability, and the capacity to accommodate to a bureaucratic enterprise, nothing more.

Second, cadets are not exempted based on their experience from any required training once they enter the armed forces. CAP and JROTC training is unlike Senior ROTC at a college or university which, upon completion, constitutes the military training necessary for the award of a commission. Senior ROTC is a substitute for attending a service academy or a dedicated form of commissioning training; JROTC and CAP are not. Similarly, the firearms training experienced by some cadets in JROTC or CAP does not lead to military qualifications or exemption from any otherwise required instruction of new recruits.

B. Are JROTC and CAP "Recruiting" For Purposes of the Optional Protocol?

While cadets are not legally or functionally in the U.S. armed forces, some commentators have proposed that the U.S. has violated its obligation not to "recruit" children under age 17. One scholar wrote: "The Protocol provides that children under the age of eighteen may not serve in the military and should not be recruited when under sixteen-years-old. It is clear that the United States falls short on both measures."[56] Another scholar argued: "The U.S., by binding declaration, set the absolute minimum age at seventeen years. Despite being part of this treaty, the U.S. military recruitment system openly targets high school students less than seventeen years of age."[57] The ACLU has claimed that JROTC is an impermissible recruiting method.[58]

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[56] Mae C. Quinn, *WAR ON . . .THE FALLOUT OF DECLARING WAR ON SOCIAL ISSUES: Symposium Article: The Fallout from Our Blackboard Battlegrounds: A Call for Withdrawal and a New Way Forward,*
[15] J. Gender Race & Just. 541, 572 (2012). *See also* Lila A. Hollman, Note, *Children's Rights and Military Recruitment on High School Campuses*, 13 U.C. Davis J. Int'l L. & Pol'y 217, 220 (2007) ("[C]urrent U.S. military recruitment of high school students violates the Optional Protocol.").

[57] Phillip Ruben Nava, *Equal Access Struggle: Counter-Military Recruitment on High School Campuses*, 44 J. Marshall L. Rev. 459, 466 (2011).

[58] *Soldiers of Misfortune: Abusive US Military Recruitment and Failure to Protect Child Soldiers*, American Civil Liberties Union (ACLU) (2008) 13 ("With the stated goals of enhancing children's perceptions of a career in the military and enhancing military recruiting efforts, JROTC undeniably is a recruiting tool."); *id*. at 2 ("Public schools serve as a prime recruiting grounds for the military, and the U.S. military's generally accepted procedures for recruitment of high school students plainly violate the Optional Protocol.").

Again, it would be difficult indeed to deny that Congress funds JROTC and CAP in part because cadets often enter the armed forces.[59]

These critiques raise the question of precisely what "recruiting" means for the purposes of the Optional Protocol. The core meaning of "recruitment" is actual conscription, enlistment, or induction whereby the person "recruited" becomes a member of the armed forces and is obliged to obey orders and perform military duty. Thus, in a set of principles designed to carry out the international prohibition on use of child soldiers, UNICEF defined "recruitment" as "compulsory, forced and voluntary conscription or enlistment of children into any kind of armed force or armed group."[60]

As some commentators have argued, however, "recruitment" could conceivably include governmental marketing and provision of information or encouragement. Perhaps "recruitment" is broad enough to include any actions by a state party with the purpose or effect of resulting months or years in the future in "recruitment" in the sense of actual entry. The Blue Angels, Thunderbirds, and Golden Knights may well be, in part, designed to interest young people in military service. If the government knowingly permits a child of 12 to see them, or that child is given a brochure by a military recruiter at a mall or an airshow, and advised to keep physically fit and complete high school if the child wants to join the U.S. armed forces in the future, has a war crime been committed?

The structure and history of the Optional Protocol strongly suggest that "recruiting" has the exclusive meaning of entry into the armed forces, and does not include the provision of information, encouragement, or efforts to shape attitudes. For example, the drafting history reflects that at an early meeting, "[t]he attention of the working group was drawn to different meanings which the term 'recruitment' had in different languages. Alternative terms proposed for eventual use in the draft optional protocol included 'conscription', 'enlistment', 'enrolment' as well as 'admission' and 'registration.'"[61] None of these meanings included encouragement or

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[59] *See supra* note 41 and accompanying text.

[60] UNICEF, The Paris Principles: The Principles and Guidelines on Children Associated with Armed Forces or Armed Groups (Feb. 2007), ¶ 2.4 at 7.

[61] U.N. Org. for Educ., Sci. and Cul. (UNESCO), Rights of the Child: Report of the working group on a draft optional protocol to the Convention on the Rights of the Child in involvement of children in armed conflicts 6, ¶ 28 (Feb 10, 1996) E/CN.4/1995/96

advertising. The Quakers proposed a formal definition of "recruit," which would include "both compulsory conscription and voluntary enlistment or participation."[62] "Recruitment" was repeatedly used as synonymous with enlistment or actual joining an armed force.[63]

The purposes of the Optional Protocol, as set out in its preamble, are all aimed at the dangers of actual military service. For example, the Optional Protocol aimed to "increase the protection of children from involvement in armed conflict," and endorsed other international actions designed to "ensure that children under the age of 18 years do not take part in hostilities," and prohibit "forced or compulsory recruitment of children for use in armed conflict."[64]

All uses of "recruitment" in the text of the Optional Protocol contemplate actual joining. Thus, each state party is obligated to "set forth the minimum age at which it will permit voluntary recruitment into its national armed forces and a description of the safeguards that it has adopted to ensure that such recruitment is not forced or coerced."[65] Use of the word "into"

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[62] *Id*. at 15 ¶ 95.

[63] UNESCO, Rights of the Child: Report of the working group on a draft optional protocol to the Convention on the Rights of the Child in involvement of children in armed conflicts on its second session 8 ¶ 41 (Mar 21, 1996) E/CN.4/1996/102; UNESCO, Rights of the Child: Report of the working group on a draft optional protocol to the Convention on the Rights of the Child in involvement of children in armed conflicts on its Third Session 7, ¶ 30 (Mar 13, 1997) E/CN.4/1997/96 ("voluntary recruitment" equated to "volunteering to join the armed forces"); *Id*. at ¶ 31 (noting position that "voluntary recruitment" was "a valuable source of employment, training and continuing education"); *id*. at ¶ 33 (noting differing views on "whether persons who had not attained the age of 18 should be allowed to enlist with or without the authority of their parents or guardians."); UNESCO, Rights of the Child: Report of the working group on a draft optional protocol to the Convention on the Rights of the Child in involvement of children in armed conflicts on its Sixth Session 22, ¶ 107 (Mar 27, 2000) E/CN.4/2000/74 (noting comment of International Committee for the Red Cross "that it might be difficult in the field to determine whether child soldiers had been voluntarily recruited or not"); *Id*. at 22-23, ¶ 111 (The Coalition to Stop the Use of Child Soldiers "regretted that it was not possible to reach agreement on a minimum age for volunteer recruits into government armed forces. The only way to ensure that persons under 18 years did not participate in war was not to recruit them in the first place.").

[64] OP, *supra* note 4, preamble.

[65] OP, *supra* note 4, art. 3, ¶ 2. *See also* CROC, *supra* note 3, Art. 38, ¶ 3 ("States Parties shall refrain from recruiting any person who has not attained the age of fifteen years into their armed forces."); Int'l Comm. Red Cross, Customary International Law, *supra* note 12, Rule 136 ("Children must not be recruited into armed forces or armed groups.").

suggests that it regulates actual entry; the language is simply inconsistent with the idea that it regulates mere exposure to information or encouragement to consider taking action in some future year.[66] The Optional Protocol also obligates state parties "to ensure that persons within their jurisdiction recruited or used in hostilities contrary to this protocol are demobilized or otherwise released from service."[67] Here, too, the implication is that children "recruited" have actually served in an armed force, not merely been encouraged to consider joining at some point.[68]

Nothing in the drafting history suggests that the Optional Protocol was intended to eliminate governmental promotion of military service. It is unimaginable that such a significant feature of the agreement was intended but unmentioned. Schools must teach some things in preference to other things, and communities must promote some values at the expense of others. The CROC itself recognizes a child's right to education, and provides that it shall include "[t]he development of respect . . . for the national values of the country in which the child is living."[69] There is no hint in the text or drafting history of the Optional Protocol that this aspect of the CROC was being reconsidered.

In the United States, the Supreme Court has recognized that the government may inculcate values, including suggesting that military service is honorable and rewarding. For example, the Court stated that "local school boards must be permitted to establish and apply their curriculum in such a

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[66] Indeed, the fact that states are obligated to ensure that those under age 18 "are fully informed of the duties involved in military service" (OP, *supra* note 4, Art. 3(3)(c)) prior to voluntary recruitment suggests that there is a distinction between provision of information and recruitment, and that, whatever the minimum age is for military service, those below that age may nevertheless be informed about it.

[67] OP, *supra* note 4, art. 6, ¶ 3.

[68] This usage is consistent with that of the Child Soldiers Accountability Act of 2008, 18 U.S.C. § 2442(a) (2012), which punishes anyone who "recruits, enlists, or conscripts a person to serve while such person is under 15 years of age in an armed force or group." Senator Dick Durbin, discussing the bill on the Senate floor, stated: "In June 2007, the Special Court for Sierra Leone became the first international court to issue convictions for child soldier recruitment, finding three defendants guilty of crimes that included conscripting or enlisting children under the age of 15." 153 Cong. Rec. S15942 (2007). There, recruitment was synonymous with enlistment or conscription; it meant entry into service, not political education. *See also* 154 Cong. Rec. H7820 (2008) (remarks of Rep. Jackson-Lee, explaining that bill would "prohibit the recruitment . . . of child soldiers").

[69] CROC, *supra* note 3, art. 29(1)(c). *See also Id.* art. 29(2) (recognizing that education "shall conform to such minimum standards as may be laid down by the State").

way as to transmit community values, and . . . there is a legitimate and substantial community interest in promoting respect for authority and traditional values be they social, moral, or political."[70] The Court has also recognized that teachers "influence the attitudes of students toward government, the political process, and a citizen's social responsibilities."[71] *Brown v. Board of Education* itself recognized that education "is required in the performance of our most basic public responsibilities, even service in the armed forces."[72] The Court has also recognized that the federal government[73] and states[74] have a legitimate interest in promoting military service.[75]

The mere fact that the United States certainly would have objected to this interpretation had it been raised does not necessarily mean that the terms of the Optional Protocol must match U.S. values. It is simply not plausible that a major and highly controversial feature of the agreement could have been intended by the drafters, but with absolutely no attention

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[70] Bd. of Educ., Island Trees Union Free Sch. Dist. No. 26 v. Pico, 457 U.S. 853, 864 (1982) (citation omitted). For a critique of patriotic education in public schools, *see* Brent T. White, *Ritual, Emotion, and Political Belief: The Search for the Constitutional Limit to Patriotic Education in Public Schools*, 43 Ga. L. Rev. 447 (2009).

[71] Ambach v. Norwick, 441 U.S. 68, 79 (1979).

[72] Brown v. Bd. of Educ., 347 U.S. 483, 493 (1954).

[73] Rumsfeld v. Forum for Acad. & Institutional Rights, Inc., 547 U.S. 47, 67 (2006) ("Military recruiting promotes the substantial Government interest in raising and supporting the Armed Forces . . . ."). *See also, e.g.,* United States v. Alvarez, 132 S. Ct. 2537, 2548 (2012) (plurality opinion).

[74] Hooper v. Bernalillo Cty. Assessor, 472 U.S. 612, 620 (1985) (quoting Regan v. Taxation With Representation of Wash., 461 U.S. 540, 551 (1983) ("[R]ewarding veterans . . . for their military service . . . is, of course, plainly legitimate; only recently we observed that '[our] country has a longstanding policy of compensating veterans for their past contributions by providing them with numerous advantages.'"). *See also, e.g.,* Pers. Adm'r of Massachusetts v. Feeney, 442 U.S. 256, 265 (1979) ("The veterans' hiring preference . . . has traditionally been justified as a measure designed to reward veterans for the sacrifice of military service, to ease the transition from military to civilian life, to encourage patriotic service, and to attract loyal and well-disciplined people to civil service occupations."); Soto-Lopez v. New York City Civil Serv. Comm'n, 755 F.2d 266, 277 (2d Cir. 1985) ("encouraging service in the armed forces is likewise a legitimate state interest"), *aff'd sub nom.* Att'y Gen. of New York v. Soto-Lopez, 476 U.S. 898 (1986); Klepper v. Ohio Bd. of Regents, 570 N.E.2d 1124, 1127 (Ohio 1991) ("In our judgment, Ohio has a legitimate interest, as does any state, in helping to promote the objectives of the federal government in providing for a common defense.").

[75] Of course, the United States has a proud tradition of free speech, and no one is obligated to acquiesce to the government's position. Indeed, there is an honorable tradition of anti-militarism in this country, often advanced by veterans. *See, e.g.,* Major General Smedley D. Butler, USMC, War Is a Racket (1935).

or discussion. As it says in plain language, the Optional Protocol regulates "recruitment into the armed forces," and therefore solely affects activities and processes at the end of which the recruit is in the armed forces. Limits on education and encouragement the United States may offer to encourage children to be patriotic and, when they have reached the age required by the Optional Protocol, consider voluntarily joining the armed forces must be found in other law.

IV. Conclusion

International law prohibits young people from serving in combat or being inducted into the armed forces for excellent reasons: children should not be subjected to the physical and moral hazards of combat at all. Even voluntary induction is prohibited for people too young to make important decisions. But JROTC and CAP cadets are not formally or functionally in the armed forces, do not perform military duties, and are not subject to recruitment as the term is used in international law. As a result, they are not exposed to the dangers of combat, or asked to make commitments they are too young to understand. Accordingly, their creation and operation by the United States violates neither the spirit nor the letter of international law.

THINKING OUTSIDE THE FIVE-SIDED BOX: AN ANALYSIS OF THE DEPARTMENT OF DEFENSE'S PARENTAL ACCOMMODATIONS

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I. Introduction

The Pentagon made tremendous waves in early 2016 by uprooting long-standing policies pertaining to women in the Armed Forces. Within a span of two months, the Pentagon removed all remaining bans on women serving in direct ground combat units[1] and directed a series of family-friendly reforms, which included doubling the length of the Department of Defense's (DoD's) maternity leave benefit.[2] These changes were made, in part, to help rectify a significant imbalance between the number of men and women serving in the Armed Forces.[3]

Such drastic changes to an institution steeped in tradition left many heads spinning, particularly among older veterans and political commentators. Critics were concerned that the President and Congress were forcing the military to engage in "social engineering" that will make the military weaker and less effective at accomplishing its assigned missions.[4] Indeed, research has shown that social diversity (meaning diversity of gender, race, ethnicity, and sexual orientation) can cause "discomfort, rougher interactions, a lack of trust, greater perceived interpersonal conflict, lower communication, less cohesion, more concern about disrespect, and other problems."[5] In effect,

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[1] Ashton Carter, Secretary, Dept. of Def., Remarks in the Pentagon Press Briefing Room: The Women-in-Service Review (Dec. 3, 2015), http://www.defense.gov/News/Speeches/Speech-View/Article/632495/remarks-on-the-women-in-service-review [hereinafter Carter, Women-in-Service Review].

[2] Ashton Carter, Secretary, Dept. of Def., Briefing in the Pentagon Press Briefing Room: Force of the Future Reforms (Jan. 28, 2016), http://www.defense.gov/News/News-Transcripts/Transcript-View/Article/645952/department-of-defense-press-briefing-by-secretary-carter-on-force-of-the-future [hereinafter Carter, Force of the Future].

[3] Peter Rugg, *Defense Department Doubles Maternity Leave to 12 Weeks*, Inverse (Jan. 28, 2016), https://www.inverse.com/article/10750-defense-department-doubles-maternity-leave-to-12-weeks.

[4] *See* Carl Asszony, *Military Social Engineering Unproductive*, Daily Record (Feb. 11, 2016), http://www.dailyrecord.com/story/opinion/2016/02/11/military-social-engineering-unproductive/80187806/ (stating that "the military is being weakened because of the political agenda put forth by those in Washington who never served a single day in the military"*). See also* Ray Starmann, *The Great Social Experiment Takes the Field – In the War of 2020*, U.S. Def. Watch (Feb. 7, 2016), http://usdefensewatch.com/2016/02/the-great-social-experiment-takes-the-field-in-the-war-of-2020/ (depicting a fictitious story about the inevitable failure of US military due to "vast social engineering").

[5] Katherine W. Phillips, *How Diversity Makes Us Smarter*, Sci. Am. (Oct. 1, 2014), http://www.scientificamerican.com/article/how-diversity-makes-us-smarter/.

critics believe that for the military to become more diverse, it will have to sacrifice quality for quotas.[6]

Given such critiques, why does the military persist in striving to recruit and maintain more women? First, contrary to the belief of some critics, the military is not resorting to quotas to achieve diversity.[7] Consequently, the military does not have to choose between diversity and quality personnel.[8] As a basic principle, by broadening a pool of applicants so that a greater number of people apply, the number of high-quality applicants should also increase.[9] Women represent a large pool of potential recruits for the military, but they consider joining the military at much lower rates than men.[10] By more effectively tapping into that potential pool of recruits, the military would have more applicants from which to choose, could be more selective, and therefore, its personnel quality would invariably increase.[11]

Second, those critics that express concern about the military becoming a weaker force, less able to effectively accomplish its mission, are likely clinging to vestiges of an oversimplified image of the strongest alpha male making the best warrior.[12] For the modern military, however, most warfighting takes place on a "technologically centered battlefield,"[13] and its service members are called upon to engage in an expansive range of operations other than war, including, for example, humanitarian assistance, counter-drug operations, and peacekeeping operations.[14] Additionally, today's military is challenged by

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[6] Carl Forsling, *Why the Military Needs Diversity*, Task & Purpose (Apr. 28, 2015), http://taskandpurpose.com/why-the-military-needs-diversity/.

[7] *See* Tom Philpott, *Military Update: Pledges, Doubts Shared Over Women in Ground Combat Jobs*, Stars & Stripes (Feb. 4, 2016), http://www.stripes.com/military-update-pledges-doubts-shared-over-women-in-ground-combat-jobs-1.392178 (*quoting* Gen. Mark A. Milley, Army Chief of Staff, informing the Senate Armed Services Committee that the Army will "apply no quotas and no pressure" to integrate women into direct ground combat units).

[8] Forsling, *supra* note 6.

[9] *Id*.

[10] *Id*.

[11] *Id*.

[12] Kelsey L. Campbell, *Diversity & Inclusion: Imperative for the U.S. Military's Future Success*, Women in Int'l Sec. (Feb. 3, 2014), http://wiisglobal.org/2014/02/03/diversity-and-inclusion-imperative-for-the-u-s-militarys-future-success/ (last visited Mar. 29, 2016).

[13] *Id*.

[14] Dept. of Def., Joint Pub 3-07, Joint Doctrine for Military Operations Other Than

having to function with fewer service members and on a shrinking budget.[15] As such, the twenty-first century U.S. Armed Forces require a broad range of leaders and fighters who can enable the military to innovate and adapt to changing times.[16]

Decades of research conducted in countless fields of study have come to the same conclusion: socially diverse groups are more innovative than homogeneous groups.[17] In other words, to build a team that excels at innovation, the team members should be diverse. Diversity has been shown to enhance creativity because "[p]eople who are different from one another in…gender and other dimensions bring unique information and experiences to bear on the task at hand."[18] The phenomenon of increasing innovation does not occur solely because of the people with diverse backgrounds bringing new information and experiences; research also shows that merely interacting with diverse individuals forces group members to think differently.[19] Members in homogeneous groups tend to rest assured they will agree with each other, understand each other's perspectives and beliefs, and be able to easily come to a consensus.[20] However, when social diversity exists in the group, the members' preconceptions change so that they anticipate differences of opinion and points of view and they assume they will need to work harder to be able to come to a consensus.[21] Further, when a person hears a dissenting opinion or idea from someone who is socially different than them, it provokes more thought than when it comes from someone who is similar to the listener.[22]

Additionally, research has also shown that gender diversity has a measurable, positive impact on the success of an organization. For example, one study found that "female representation in top management leads to an [average] increase of $42 million in firm value."[23] The study also found that

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War, at III-1, Fig. III-1 (June 16, 1995).

[15] David Alexander, *Budget Cuts to Slash U.S. Army to Smallest Since before World War Two*, Reuters (Feb. 24, 2014), http://www.reuters.com/article/us-usa-defense-budget-idUSBREA1N1IO20140224.

[16] Campbell, *supra* note 12.

[17] Phillips, *supra* note 5.

[18] *Id*.

[19] *Id*.

[20] *Id*.

[21] *Id*.

[22] *Id*.

[23] *Id*.

organizations had greater financial gains resulting from innovation when women were included in the top leadership ranks of an organization.[24]

By generating more ideas and subliminally "encouraging individuals to up their game," teams with women, and other varieties of people, tend to innovate better and perform better.[25] Innovation, in turn, is imperative to the military's ability to operate in new situations and in a variety of cultures, and to adapt more easily to the next challenges it encounters.[26] Having a socially diverse force that includes ample women, therefore increases the probability of mission effectiveness by bringing a wider variety of ideas to the fight.[27] These actualities are driving the Department of Defense to strive to recruit and retain more women.

The U.S. Armed Forces, nonetheless, are strikingly homogeneous. As of 2014, males constituted 85% of the military.[28] Thus, unlike today's civilian workforce in which women outnumber men, men in the military still outnumber women by five-and-a-half to one.[29] Additionally, nearly 69% of all service members identify themselves as white, just over 55% are married, and 42% have children.[30] In fact, the demographics of today's military resemble the civilian workforce of over fifty years ago.[31]

In the past, women who joined the workforce, especially those joining the military, were expected to conform to male norms and values.[32] The notion of the ideal American worker developed in the likeness of traditional male employees who were "'autonomous, unencumbered…, shorn of their external attachments and relationships'…[and who] expressed commitment to their

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[24] *Id*.

[25] Forsling, *supra* note 6.

[26] Campbell, *supra* note 12.

[27] *Id*.

[28] U.S. Dep't. of Def., 2014 Demographics Profile of the Military Community at vii (2014), http://download.militaryonesource.mil/12038/MOS/Reports/2014-Demographics-Report.pdf [hereinafter Dept. of Def., 2014 Demographics Profile].

[29] Marcy L. Karin & Katie Onachila, *The Military's Workplace Flexibility Framework*, 3 Am. U. Lab. & Emp. L.F. 153, 159 (2013).

[30] Dept. of Def., 2014 Demographics Profile, *supra* note 28.

[31] Karin & Onachila, *supra* note 29.

[32] *Id*. at 183 (quoting Amy Reinkober Drummet, Marilyn Coleman, & Susan Cable, Military Families Under Stress: Implications for Family Life Education, 52 FAM. REL. 279, 279 (2003)).

careers through maximum 'face time'" at the workplace.[33] Consequently, because the military also embraced the "ideal worker" expectation, it was slow to make accommodations for parents to balance their work and family responsibilities. As a result, because women were traditionally (and still are) more likely than men to shoulder the bulk of childrearing responsibilities, the persistence of the "ideal worker" expectation has disadvantaged mothers more than it has fathers.[34]

The upcoming generation of service women, however, is not accepting this outdated expectation and are seeking greater flexibility during their service.[35] In recognition that the Military Services are recruiting and retaining women at much lower rates than men during their prime years to start families, the Pentagon instituted a series of expanded parental accommodation policies as part of its "Force of the Future" reforms, including doubling the length of maternity leave from six to twelve weeks.[36]

This article argues that the new DoD maternity leave policy is a step in the right direction for recruiting and retaining more service women; however, set in the context of the whole scheme of DoD parental accommodations, it could prove to be a Pyrrhic victory for military mothers. Although the DoD offers an array of parental accommodations that are highly competitive with federal and corporate maternity policies, the DoD's policies were developed piecemeal and have resulted in an overall scheme that is substantially gender imbalanced. This article will discuss the motivations for and potential adverse impacts of the DoD's imbalanced parental accommodations, and recommend that the Pentagon strategically reengineer its parental accommodations scheme into a more gender-balanced and flexible plan.

It is beyond the scope of this article, however, to propose the specific details of such a plan, as that would likely entail extensive manpower and operational assessments on the part of the Pentagon and the Military Services. It is also beyond the scope of this article to discuss, in-depth, the

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[33] Margaret F. Tighe, *Family and Medical Leave Act*, 16 Geo. J. Gender & L. 141, 143 (2015) (quoting Lisa Bornstein, *Inclusions and Exclusions in Work-Family Policy: The Public Values and Moral Code Embedded in the Family and Medical Leave Act*, 10 Colum. J. Gender & L. 77, 95-96 (2000) & *citing* Judy O. Berry & Julie Meyer Rao, *Balancing Employment & Fatherhood: A System Perspective*, 18 J. Fam. Issues 386, 395 (1997).

[34] *Id*. at 144.

[35] Karin & Onachila, *supra* note 29.

[36] Carter, Force of the Future, *supra* note 2.

advantages and disadvantages of ancillary family benefits announced in early 2016 by the DoD, such as mandates for breastfeeding rooms, extended child care hours, and fertility services. Rather, this article focuses on the parental accommodation policies that affect the duration of new parents' absences from the workplace and that temporarily waive parents' responsibilities to serve worldwide. Additionally, this article focuses exclusively on parental accommodations as they apply to the active duty component of the Armed Forces, and not to the National Guard or Reserves. Finally, this article is limited to analysis of parental accommodations as they pertain to single parents and heterosexual couples—in-depth analysis of the DoD parental accommodations' impact on same-sex couples or transgender individuals would be too sizeable for inclusion in this article.

Part II of this article sets forth the Pentagon's Force of the Future reforms, including its comprehensive family benefits. After introducing the reforms, a brief explanation follows on the procedural reasons why the Pentagon cannot effectuate changes to paternity and adoption leaves in the same way it can maternity leave. Part II then provides information on an additional, preexisting DoD parental accommodation policy that was unaltered by the Force of the Future reforms. This part also provides information on federal parental leave policies, which, although inapplicable to the Armed Forces, provide insight into the national parental-leave landscape within which the Pentagon developed its policies.

Part III opens with a discussion of the advantages of the DoD's new twelve-week maternity leave policy for new mothers and for the Armed Forces. Next, the majority of this part focuses on implementation of parental accommodations by the Navy, Marine Corp, Army, and Air Force, and illustrates how the Armed Forces have approached parental accommodations with a mindset that male service members are indispensable Sailors, Marines, Soldiers, and Airmen, whereas service women are less vital service members who are expected to be the primary caregivers in their households. This part further explains the growing importance of work-life balance and workplace flexibility to the upcoming generation of service men and women, and how the Pentagon needs to incorporate those values into a new, comprehensive parental accommodations plan in order to effectively continue to recruit and retain top talent. Part III closes with a discussion of an additional benefit that Congress made available to the Armed Forces in 2009, but has remained underutilized and relatively undeveloped as a parental accommodations tool.

Finally, Part IV concludes this article with a brief highlight of the arguments presented herein.

II. Background

A. The Department of Defense Reforms

President Barack Obama nominated Ashton Carter to be the 25th Secretary of Defense, in part, because of his reputation for being "an innovator and a reformer."[37] Secretary Carter lived up to that reputation. During his time in office as the Secretary of Defense, beginning February 17, 2015, Secretary Carter pursued his vision of reforming the Department of Defense into the Force of the Future by effecting sweeping personnel and social changes.[38]

At his ceremonial swearing in, Secretary Carter hinted at the changes to come in the DoD's personnel policies. He explained that the "9/11 generation" is coming to the end of its time in the military and that new recruits are coming from generations that have no personal memory of the Cold War and only vaguely remember the 9/11 terrorist attacks, if at all.[39] Consequently, it will take different approaches than in the past to attract the finest of the upcoming generations and to recruit them away from the private sector.[40] During a subsequent speech at his former high school, Secretary Carter elaborated that if the Armed Forces are not able to "continue to attract, inspire, and excite talented young Americans," then "having the best technology,… planes, ships, and tanks…will [not] matter."[41]

Following this speech, Secretary Carter directed a comprehensive review of the DoD's personnel systems, focused on ways to increase personnel retention and to recruit high-quality individuals.[42] The review, which

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[37] Cheryl Pellerin, *Carter Takes Office Today as 25th Defense Secretary*, DoD News (Feb. 17, 2015), http://www.defense.gov/News-Article-View/Article/604124.

[38] *Id*.

[39] Ashton Carter, Secretary, Dept. of Def., Speech at the Pentagon Auditorium: Ceremonial Swearing-In (Mar. 6, 2015), http://www.defense.gov/News/Speeches/Speech-View/Article/606651/ceremonial-swearing-in [hereinafter Carter, Ceremonial Swearing-In].

[40] *Id*.

[41] Ashton Carter, Secretary, Dept. of Def., Speech at Abington Senior High School: Force of the Future (Mar. 30, 2016), https://www.defense.gov/News/Speeches/Speech-View/Article/606658/remarks-by-secretary-carter-on-the-force-of-the-future.

[42] Dept. of Def., Fact Sheet: Building the First Link to the Force of the Future, http://

spanned five months, was conducted by over 150 subject matter experts and scholars representing each of the branches of the Armed Forces.[43] The team reviewed more than 100 studies and reports regarding personnel management, talent management, and human resources practices of the private sector.[44] Ultimately, in August 2015, the team recommended over 100 reform proposals and initiatives for Secretary Carter's consideration.[45]

Upon receiving these initial recommendations, Secretary Carter formed a second working group to evaluate all of the proposals "against the backdrop of force readiness and maintaining an all-volunteer Joint Force."[46] The working group recommended twenty reforms and initiatives, eighteen of which Secretary Carter approved and unveiled during his speech on November 18, 2015 at The George Washington University.[47] This initial round of

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www.defense.gov/Portals/1/features/2015/0315_force-of-the-future/documents/FotF_Fact_Sheet_-_FINAL_11.18.pdf (last visited Feb. 9, 2016) [hereinafter Dept. of Def., Fact Sheet: Building the First Link].

[43] *Id*.

[44] *Id*.

[45] *Id*.

[46] *Id*. "Joint Force" is "[a] general term applied to a force composed of significant elements, assigned or attached, of two or more Military Departments [(i.e., one of the departments within the Department of Defense created by the National Security Act of 1947, which are the Department of the Army, the Department of the Navy, and the Department of the Air Force)] operating under a single joint force commander." Dept. of Def. Joint Pub. 1-02, Department of Defense Dictionary of Military and Associated Terms (Nov. 8, 2010, as amended through Jan. 15, 2016) at 125, 152. The Marine Corps falls under the Department of the Navy. Official site of the United States Marine Corps, http://www.marines.mil/Leaders.aspx (last visited Feb. 14, 2016).

[47] Dept. of Def., Fact Sheet: Building the First Link, *supra* note 42; Ashton Carter, Secretary, Dept. of Def., Remarks at The George Washington University: Building the First Link to the Force of the Future (Nov. 18, 2015), http://www.defense.gov/News/Speeches/Speech-View/Article/630415/remarks-on-building-the-first-link-to-the-force-of-the-future-george-washington. Secretary Carter announced that the DoD would work to implement the following initiatives: (1) improve and enhance college internship programs, (2) launch an entrepreneur-in-residence program, (3) designate a chief recruiting officer in the Office of the Under Secretary of Defense for Personnel and Readiness, (4) expand the Secretary of Defense Corporate Fellows Program, (5) update and modernize the retirement system, (6) implement a web-based talent management system, (7) establish an Office of People Analytics, (8) implement exit surveys, (9) examine ways to improve recruiting, (10) institute diversity briefings for senior leaders, (11) establish Talent Management Centers of Excellence, (12) align civilian skills with mission requirements in the Reserve component, (13) conduct a compensation study, (14) establish a doctoral-level program in strategy, (15) establish a Center for Talent Development, (16) establish a Civilian Human Capital Innovation Laboratory,

initiatives primarily dealt with internship and fellowship programs, retirement pension restructuring, and the establishment of various new personnel offices and task forces.[48]

In addition to these Force of the Future initiatives, Secretary Carter also ordered two highly publicized social changes during his first year in office. First, on July 13, 2015, he directed the DoD to create a working group to study the implications of lifting the ban on military service by transgender individuals.[49] He further directed that the working group would have six months to complete its study and that the group would start with the presumption that "transgender persons can serve openly without adverse impact on military effectiveness and readiness."[50] Subsequently, on June 30, 2016, Secretary Carter announced that transgender service members could begin serving openly in the military and that beginning July 1, 2017, the Military Services would allow transgender individuals to join the military.[51]

The second highly publicized social change occurred on December 3, 2015, when Secretary Carter announced his decision to not grant any exceptions to opening all remaining occupations in the Armed Forces to women.[52] That decision marked the final chapter in a previous Secretary of Defense, Leon E. Panetta's revocation of the Direct Ground Combat Definition and Assignment Rule that began in January 2013.[53] At that time, Secretary Panetta granted each of the Military Departments three years to request any exceptions to continue to exclude qualified women from assignment to units whose primary mission is to engage in direct ground combat.[54] The Army,

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(17) establish a DoD-wide Defense Innovation Network, (18) establish a task force to review Active and Reserve component permeability. The author was unable to find any description of the two initiatives Secretary Carter apparently either disapproved or deferred for later approval. *Id*.

[48] Dept. of Def., Fact Sheet: Building the First Link, *supra* note 42.

[49] Press Release, Dept. of Def. Statement by Secretary of Defense Ash Carter on DoD Transgender Policy (Jul. 13, 2015), http://www.defense.gov/News/News-Releases/News-Release-View/Article/612778 (last visited Feb. 13, 2016).

[50] *Id*.

[51] Press Release, Dept. of Def. Statement by Secretary of Defense Ash Carter on Policy for Transgender Service Members (Jun. 30, 2016), https://www.defense.gov/News/News-Releases/News-Release-View/Article/821675/secretary-of-defense-ash-carter-announces-policy-for-transgender-service-members.

[52] Carter, Women-in-Service Review, *supra* note 1.

[53] *Id*.

[54] *Id*.

Navy, and Air Force did not request any exemptions, but the Marine Corps requested a limited exception for certain positions including those of infantry, machine gunner, fire support, and reconnaissance.[55] Secretary Carter denied the Marine Corps' request and opened the remaining 220,000 military positions to any woman who could meet the often rigorous physical standards required for those jobs.[56]

Several military and national leaders have opposed these social changes. Among the opposition included General Joseph Dunford, Chairman of the Joint Chiefs of Staff, who, as a Marine, supported the Marine Corps' request and sought to keep women out of infantry units; and Congressman Duncan Hunter, a member of the Armed Services Committee, who criticized opening all combat roles to women and ending the bar to service by transgender individuals as "the politicization of the U.S. military."[57] Congressman Hunter averred that the Pentagon and the White House were unconcerned with the combat effectiveness of the Armed Forces, claiming that the changes would cause "small infantry units [to] become less effective, and less able to kill."[58] Other critics have expressed concern that such dramatic social changes over such a short period of time is overwhelming to service members.[59]

Nonetheless, Secretary Carter remained undeterred by such criticism, and on January 28, 2016, announced the next wave of Force of the Future reforms: comprehensive family benefits, which are the focus of this article.[60] The family benefit initiatives were among the reforms recommended to Secretary Carter, in August 2015, following the comprehensive five-month review of the Department's personnel systems.[61]

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[55] *Id*.

[56] *Id*.

[57] Tom Brook, *Defense Secretary Ash Carter's History Personnel Changes Irk Generals*, USA Today (Dec. 27, 2015), http://www.usatoday.com/story/news/2015/12/23/defense-secretary-ash-carter-transgender-troops-women-in-combat-gen-joe-dunford/77825314/#.

[58] *Id*.

[59] Nancy Youssef, *Pentagon's Progressive Revolution Adds More Maternity Leave*, The Daily Beast (Jan. 28, 2016), http://www.thedailybeast.com/articles/2016/01/28/pentagon-s-progressive-revolution-adds-more-maternity-leave.html.

[60] Carter, Force of the Future, *supra* note 2.

[61] *Id*.

Prior to unveiling the reforms, Secretary Carter drew attention to the fact that 52% of enlisted military members and 70% of officers are married.[62] Further, across the Military Departments, there are 84,000 military-to-military (or "dual-military") marriages, meaning that both spouses in the marriage are members of the Armed Forces.[63] Ultimately the stress of trying to balance family and service is one of the primary reasons service members report for leaving the military.[64] Therefore, Secretary Carter saw it as imperative that the DoD address this challenge in order to build the Force of the Future, particularly because upcoming generations place an even higher priority on work-life balance than did prior generations.[65]

1. Maternity Leave

The first family-friendly initiative Secretary Carter announced was to standardize maternity leave across the Military Services.[66] Prior to this announcement, each Military Department had established its own policy concerning maternity leave, resulting in maternity leave varying from six to eighteen weeks across the Departments.[67] Secretary Carter standardized maternity leave by setting it at twelve weeks for all female service members DoD-wide.[68] This maternity leave is fully paid, meaning the Armed Forces member taking leave will continue to receive 100% of her base pay, benefits, and allowances.[69]

Secretary Carter also decreed that maternity leave must be taken continuously, starting immediately following a "birth event" or release from hospitalization after a birth event, whichever occurs later.[70] The Pentagon defined a birth event as "[a]ny birth of a child(ren) to a female Service member wherein the child(ren) is retained by the mother.…[m]ultiple children resulting from a single pregnancy (e.g., twins or triplets) will be treated as

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[62] *Id*.

[63] *Id*.

[64] *Id*.

[65] *Id*.

[66] *Id*.

[67] *Id*.

[68] *Id*.

[69] *Id*.

[70] U.S. Dept. of Def. Directive-Type Memorandum 16-002, DoD-Wide Changes to Maternity Leave at 2 (5 Feb., 2016), http://www.dtic.mil/whs/directives/corres/pdf/DTM-16-002.pdf [hereinafter DTM 16-002].

a single event so long as the multiple births occur within the same 72-hour period."[71] For dual-military couples, maternity leave may not be transferred to the spouse who did not experience the birth event in order to create a shared benefit between the service members.[72]

Additionally, the new mother's commander, or the commander's designee, is not permitted to disapprove her request for maternity leave. Further, commanders or medical providers may continue to grant additional convalescent leave in excess of the twelve weeks maternity leave when a medical provider deems it is warranted due to the service member's fitness for duty.[73]

The new maternity leave benefits are offered to all women serving in the active duty military or to Reserve members who are serving in a full-time status or on an active duty recall or mobilization orders lasting longer than twelve months.[74] Those eligible currently number over 200,000 women (14.8% of enlisted personnel and 17.4% of officers).[75]

Stating that he had reviewed numerous studies, reports, and inputs from the Military Services, Secretary Carter concluded that a standardized twelve weeks of maternity leave across the Military Services "establishes the right balance between offering a highly competitive leave policy while also maintaining the readiness of our total force."[76] He also boasted that

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[71] *Id*.

[72] *Id*.

[73] *Id*. Convalescent leave is leave which a commander may grant to a patient who is not fit for duty. Such leave ordinarily may not exceed 30 days per hospitalization and is to be granted for the shortest duration essential. U.S. Dept. of Def. Instr. 1327.06, *Leave and Liberty Policy and Procedures* at Enclosure 1 (June 16, 2009, incorporating Change 2, effective Aug. 13, 2013), para. 1.k.(1), http://dtic.mil/whs/directives/corres/pdf/132706p.pdf [hereinafter DoDI 1327.06].

[74] U.S. Dept. of Def., Fact Sheet: Building the Second Link to the Force of the Future Strengthening Comprehensive Family Benefits, http://www.defense.gov/Portals/1/Documents/pubs/Fact_Sheet_Tranche_2_FOTF_FINAL.pdf (last visited Jan. 30, 2016) [hereinafter Dept. of Def., Fact Sheet: Building the Second Link].

[75] *Id*.

[76] Carter, Force of the Future, *supra* note 2. The author submitted a Freedom of Information Act (FOIA) request to the DoD on January 30, 2016, requesting the reports, surveys, and studies Secretary Carter referenced during his announcement. On February 9, 2016, an employee from the FOIA Division notified the author that the Department would be unable to respond to the request within the FOIA's twenty-day statutory period because of a backlog of 1,631 open requests. As of the date of submission of this article,

the new maternity leave policy "puts the DoD in the top tier of institutions nationwide."[77]

Finally, the Pentagon attempted to resolve any discrimination issues that could result from the new maternity leave policy by stating that "[n]o member shall be disadvantaged in her career, including without limitation in her assignments, performance appraisals or selection for professional military education, because she has taken Maternity Leave."[78]

Subsequently, in December 2016, Congress passed the National Defense Authorization Act (NDAA) for Fiscal Year 2017 and therein reinforced Secretary Carter's expansion of leave for new mothers to twelve weeks. Using the gender-neutral phrase "primary caregiver leave," the NDAA delineated between time spent on purely maternity leave versus medical convalescent leave by stating that "the primary caregiver in the case of a birth of a child is allowed up to twelve weeks of total leave, including up to six weeks of medical convalescent leave, to be used in connection with such birth."[79] Nonetheless, the effect is the same in that new mothers are permitted twelve continuous weeks of leave after giving birth to a child. The NDAA left it to the Military Departments to define the term "primary caregiver," so the Departments may ultimately vary on whether they define "primary caregiver" in a manner that could also include individuals other than biological mothers.[80]

2. Paternity Leave

Secretary Carter also voiced recognition over the changing roles of fathers in modern society, stating "[r]aising a family or caring for an infant… is not just a mother's responsibility."[81] In recognition of fathers' growing role in childcare, Secretary Carter sought authorization from Congress to nominally increase paid paternity leave for military fathers from ten days to

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the author had not received a substantive response to her request.

[77] *Id*.

[78] DTM 16-002, *supra* note 70.

[79] National Defense Authorization Act for Fiscal Year 2017, Pub. L. No. 114-328, § 521 (2016) [hereinafter NDAA 2017].

[80] *See id*.

[81] DTM 16-002, *supra* note 70.

fourteen days.[82] Unlike maternity leave, this sought-after legislation would not require new fathers to take paternity leave continuously.

Congress responded more generously then requested by including in the NDAA for Fiscal Year 2017 authorization for "secondary caregivers" to take up to twenty-one days of leave in connection with the birth of a child.[83] However, Congress required that the leave be taken continuously.[84] Also, like with defining "primary caregivers," Congress left defining "secondary caregivers" up to the Military Departments, so definitions and the resulting service members encompassed by the definition my vary among the Departments.[85]

3. Adoption Leave

Prior to passage of the NDAA for Fiscal Year 2017, legislation authorized members of the Armed Forces who adopted a child to take three weeks of adoption leave.[86] This benefit only extended to one parent in dual-military couples.[87] Secretary Carter also sought authorization from Congress to provide two weeks of adoption leave to the second parent in such dual-military relationships.[88] Congress responded by including adoptive parents in its "primary and secondary caregiver" structure in the NDAA for Fiscal Year 2017. Under the new legislation, the primary caregiver in the case of adoption is authorized up to six continuous weeks of leave to use in connection with the adoption, while the secondary caregiver is authorized up to twenty-one consecutive days.[89]

4. Additional Comprehensive Family Benefit Reforms

Secretary Carter announced a number of other family-friendly initiatives to help military families strike an acceptable work-life balance. First, through the multitude of surveys and reports gathered by his reforms task force, Secretary Carter discovered that nearly half of all military families have to use additional child care providers beyond the DoD-subsidized providers

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[82] *Id*.

[83] NDAA 2017, *supra* note 79, § 521(j)(1).

[84] *Id*. at § 521(j)(3).

[85] *See id*. at §§ 521(i)(3), 521(j)(2)

[86] DTM 16-002, *supra* note 70; 10 U.S.C. § 701(i)(l) (2013).

[87] *Id*.

[88] Carter, Force of the Future, *supra* note 2.

[89] NDAA 2017, *supra* note 79, §§ 521(i)(1)(B), 521(i)(5).

made available on most military installations.[90] In part, this was because the standard hours of those on-base child care facilities did not cover the normal duty hours of many service men and women.[91] The DoD also discovered a link between dissatisfaction with finding adequate child care and retention of military parents.[92] Therefore, Secretary Carter directed that all child care facilities on military installations will expand their hours to provide access to child care for fourteen hours per day.[93] Additionally, each child will be entitled to up to twelve hours of subsidized care per day.[94]

Further, Secretary Carter directed additional assessments to develop more options to improve access to childcare. The Military Departments were directed to submit reports, no later than June 1, 2016, regarding plans to address the following issues: (1) how to extend child care capacity in locations where wait times for on-base child care enrollment exceeds ninety days; (2) enabling service members to place their children on on-base childcare wait lists as soon as the service member receives orders to move to a new duty station, rather than having to wait until arrival at that duty station; (3) proposals for creation of a universal application for all on-base childcare programs, (4) ideas for connecting military parents to additional childcare resources in their area; and (5) creation of mentorship networks, forums for home-based childcare, and parent advisory boards.

Next, Secretary Carter directed that every building in which fifty or more women are regularly assigned, on every military installation, must designate a mother's room.[95] The purpose of the room is to accommodate women who need to pump breast milk during the duty day in order to continue breastfeeding, if they choose to do so.[96] The rooms must be private; not be restrooms; be equipped with electrical outlets, chairs, and tables; be located as close as possible to a source of water; and ensure access to designated refrigeration for breast milk.[97] This initiative will result in the modification or creation of approximately 3,600 mother's rooms DoD-wide.

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[90] Carter, Force of the Future, *supra* note 2.

[91] *Id*.; Dept. of Def., Fact Sheet: Building the Second Link, *supra* note 74.

[92] Carter, Force of the Future, *supra* note 2.

[93] *Id*.

[94] Dept. of Def., Fact Sheet: Building the Second Link, *supra* note 74.

[95] Carter, Force of the Future, *supra* note 2.

[96] *Id*.

[97] Dept. of Def., Fact Sheet: Building the Second Link, *supra* note 74.

Furthermore, Secretary Carter pledged to seek an amendment to Title 10 that would allow service members to postpone an assignment to a new duty station in situations that are in the best interest of their families.[98] This initiative contemplates situations such as a child being able to finish their senior year of high school at his or her current school, a spouse finishing a graduate degree at a local college, or a service member remaining near an ailing family member who requires treatment in the vicinity of their current duty station.[99] In exchange for being able to remain at his or her current duty station, the service member would have to agree to an additional active duty service obligation.[100] However, the DoD has not specified how many years of additional service would be required. This initiative was not addressed in the NDAA for Fiscal Year 2017.[101]

Finally, Secretary Carter highlighted that, through a pilot program, the DoD will cover the cost for active duty service members to freeze their eggs or sperm.[102] This initiative is designed to help service members protect their future ability to have children despite injuries that may occur as a result of military duties that place them in harm's way, and to provide service members flexibility to start families later in life.[103] The DoD will also look into reducing costs to service members to obtain fertility assistance through advanced reproductive technologies.[104] This initiative also was not specifically addressed in the NDAA for Fiscal Year 2017.[105]

Secretary Carter stated that these comprehensive family benefit reforms are being implemented—or sought through Congress—to "strengthen the support we provide to military families to improve their quality of life" and to "modernize our workplace and workforce, to retain and attract the top

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[98] *Id*.

[99] *Id*.; Carter, Force of the Future, *supra* note 2.

[100] Dept. of Def., Fact Sheet: Building the Second Link, *supra* note 74.

[101] *See generally* NDAA 2017, *supra* note 79, § 521.

[102] Carter, Force of the Future, *supra* note 2.

[103] *Id*.

[104] Dept. of Def., Fact Sheet: Building the Second Link, *supra* note 74.

[105] *See generally* NDAA 2017, *supra* note 79, § 521. Although Congress did not authorize reproductive services in the NDAA for Fiscal Year 2017, it mandated that by late March 2017, the DoD's Health Related Behavior Survey of Active Duty Military Personnel be revised to include questions about service members' access to family planning services and counseling, preferred methods of family planning, and the effects of deployments on family planning methods. *Id*. at § 747.

talent we need, so that our force can remain the best for future generations."[106] Through these reforms, Secretary Carter wanted to demonstrate that the DoD is a "family-friendly force."[107] Consequently, Secretary Carter expected the reforms to impact recruiting, retention, and career and talent management.[108] He anticipated that, through these reforms, the DoD will be able to attract top-quality recruits from upcoming generations, while simultaneously helping the military to retain promising service members for continued service.[109] Secretary Carter believed these reforms will ultimately enhance mission effectiveness.[110]

On February 9, 2016, President Obama sent Congress his proposed discretionary spending budget for the Department of Defense in Fiscal Year 2017.[111] Within the $582.7 billion request, President Obama sought funding for Force of the Future initiatives, including increasing paternity leave to fourteen days, increasing the availability of on-base childcare services, and providing egg and sperm freezing assistance to help military families preserve their ability to start a family.

In contrast to the support the reforms received from the White House, they initially met staunch resistance in Congress. Most notably, Senator John McCain, attacked the Force of the Future initiatives saying that he found it "deeply disturbing that [the DoD is] proposing to add expensive fringe benefits," and that the initiatives are an "outrageous waste of official time and resources…that illustrate[] the worst aspects of a bloated and inefficient defense organization."[112] Despite the harsh criticism, Pentagon officials remained optimistic about the future of the reforms because most of the Senate's ire, rather than being aimed at any particular initiative, was aimed at the nominee for the undersecretary of defense for personnel and

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[106] Carter, Force of the Future, *supra* note 2.

[107] *Id*.

[108] *Id*.

[109] *Id*.

[110] *Id*.

[111] Press Release, Dept. of Def., Department. of Defense (DoD) Releases Fiscal Year 2017 President's Budget Proposal (Feb. 9, 2016), http://www.defense.gov/News/News-Releases/News-Release-View/Article/652687/department-of-defense-dod-releases-fiscal-year-2017-presidents-budget-proposal [hereinafter Press Release, Fiscal Year 2017 President's Budget Proposal].

[112] Leo Shane III, *The Pentagon's "Force of the Future" Plan Just Got Trashed in Congress*, MilitaryTimes (Feb. 25, 2015), http://www.militarytimes.com/story/military/2016/02/25/senators-blast-personnel-reforms-nominee/80924888/.

readiness position, who was the architect behind the reforms and would have led their implementation if he was confirmed.[113] Ultimately, as discussed in Parts II.A.2-3, *supra*, Congress overcame at least some of its misgivings and authorized parental leave in excess of what Secretary Carter had requested.[114]

B. The Statutory Difference between Maternity Leave and Paternity and Adoption Leaves

Before proceeding further, it is important for the reader to understand the limitations that were placed on not only the individual Military Services, but also on the Pentagon, with regards to establishing paternity versus maternity leave policies, as well as adoption leave policies. Maternity leave and paternity leave for members of the Armed Forces are drastically different from one another; not just in duration, but also in the authorities that govern them prior to the most recent NDAA.

Prior to the enactment of the NDAA for Fiscal Year 2017, only the duration of paternity leave for members of the Armed Forces was set by federal law; maternity leave was not previously covered. On October 14, 2008, President George W. Bush signed the NDAA for Fiscal Year 2009, which amended Title 10 to establish paternity leave for married service members who were on active duty status in the Armed Forces.[115] The NDAA for Fiscal Year 2009 provided for ten days of paternity leave for service members whose wives give birth to a child.[116] Thus, the NDAA for Fiscal Year 2009 did not provide for paternity leave for unmarried service members who conceive a child out of wedlock.[117] The NDAA for Fiscal Year 2009 merely stated that the leave is "to be used in connection with the birth of the child," but it did not specify when the leave must start or whether the ten days of leave must be taken continuously.[118] Department of Defense Instruction (DoDI) 1327.06, *Leave and Liberty Policy and Procedures*, however, prescribed that paternity leave "should be taken consecutively and within a reasonable amount of time

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[113] Tom Philpott, *"Force of the Future" Might Survive Attack on Its Architect*, MILITARY.COM (Mar. 4, 2016), http://militaryadvantage.military.com/2016/03/force-of-the-future-might-survive-attack-on-its-architect/.

[114] *See* NDAA 2017, *supra* note 79, § 521(i)(1)(A).

[115] Duncan Hunter National Defense Authorization Act for Fiscal Year 2009, Pub. L. No. 110-417, 122 Stat. 4356 (2008) [hereinafter NDAA 2009]; 10 U.S.C. § 701(j) (2012).

[116] *Id*.

[117] *See id*.

[118] NDAA 2009, *supra* note 115; 10 U.S.C. § 701(j) (2012).

following the birth."[119] As part of his Force of the Future reforms, detailed in Part II.A., *supra*, Secretary Carter's request to Congress for authorization for additional paternity leave did not include a proposed change to extend paternity leave to unmarried service members.[120] Under the NDAA for Fiscal Year 2017, Congress mandated that leave be taken consecutively and, by requiring the Military Departments to define "primary caregiver" and "secondary caregiver," Congress has opened the door to allow the Departments to extend paternity leave to unwed fathers.[121]

The duration of maternity leave, on the other hand, was not dictated by federal law prior to the NDAA for Fiscal Year 2017. Rather, Title 10 had previously authorized the Secretary of Defense to prescribe procedures for the accumulation and use of paid leave for the Department of Defense, which included convalescent leave.[122] Convalescent leave is paid leave granted by a military member's commanding officer or a hospital commander to allow the service member to recover from serious illness, injury, or more recently, childbirth, which makes the servicemember "fit for duty."[123] Maternity leave, therefore, was considered a form of convalescent leave.[124] Thus, the Secretary of Defense had "broad discretion" to determine convalescent leave and maternity leave standards for the military.[125] The Secretary could set the duration of maternity leave at whatever he considers to be appropriate to allow military mothers "to recover from the trauma of giving birth, and [to] allow them to resume their rigorous responsibilities" in their military jobs, without the need for any legislative action.[126] Prior to February 2016, the Secretary of Defense had capped maternity leave at six weeks following childbirth, but entrusted the Secretaries of the respective Military Depart-

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[119] DoDI 1327.06, *supra* note 73, para. 1.k.(5). In 2013, the DoD amended the heading of para. 1.k.(5) from "Paternity Leave" to "Parental Leave." *Id*.

[120] Carter, Force of the Future, *supra* note 2; Press Release, Fiscal Year 2017 President's Budget Proposal, *supra* note 111.

[121] *See* NDAA 2017, *supra* note 79, §§ 521(i)(3), 521(j)(2).

[122] 10 U.S.C. § 704 (2012).

[123] DoDI 1327.06, *supra* note 73, para. 1.k.(1).

[124] Kellie Lunney, *Military's Paid Maternity Leave Now 12 Weeks; Feds Still at Zero*, Gov't Executive (Feb. 18, 2016), http://www.govexec.com/pay-benefits/2016/02/militarys-paid-maternity-leave-now-12-weeks-feds-are-still-zero/126044/; DoDI 1327.06, *supra* note 73, para. 1.k.(2).

[125] Lunney, *supra* note 124.

[126] *Id*.

ments to establish their own procedures for other convalescent leave.[127] Particularly, the Secretary of Defense delegated to the Military Departments the authority to establish service-wide policies regulating convalescent leave in excess of thirty days.[128] This arrangement allowed the Military Departments to prolong the non-chargeable leave a mother could take following the birth of a child by establishing a blanket policy entitling mothers to take a designated period of convalescent leave immediately following the expiration of maternity leave.[129] Secretary Carter partially rescinded that delegation of authority on February 5, 2016, however, when he expressly superseded the Military Departments' policies on maternity-plus-convalescent leave and established one, uniform policy for all members of the Armed Forces.[130] Now, in the wake for the NDAA for Fiscal Year 2017, maternity leave for service women is also dictated by federal law, but it still follows the same maternity-plus-convalescent leave configuration.[131] Congress expressly capped the non-convalescent portion of "primary caregiver leave" at six weeks and authorized six weeks of postpartum convalescent leave, with the possibility of additional convalescent leave if prescribed by a physician and approved by the new mother's commander.[132]

Finally, like paternity leave, adoption leave has been covered by Title 10 since 2009.[133] Thus, in order for Secretary Carter's vision regarding adoption leave to become reality, that is, to provide two weeks of adoption leave to the second parent in dual-military marriages, legislative action was required.[134] Prior to the enactment of the NDAA for Fiscal Year 2017, Title 10 did not prescribe whether or not the parent taking the adoption leave must take it consecutively.[135] However, in contrast to the DoD's guidance regarding paternity leave, in the area of adoption leave the DoD did not express a preference that service members should take adoption leave consecutively.[136] This may be have been recognition of the reality that most adopting parents would use adoption leave immediately upon placement of a child in their

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[127] DoDI 1327.06, *supra* note 73, para 1.k.(1)-(2).

[128] *Id*. at para. 1.k.(1).

[129] *See id*. at paras. 1.k.(1)-(2).

[130] DTM 16-002, *supra* note 70.

[131] *See* NDAA 2017, *supra* note 79, § 521(i)(1)(A).

[132] NDAA 2017, *supra* note 79, §§ 521(i)(1)(A), 521(i)(4).

[133] 10 U.S.C. § 701(i) (2012).

[134] Dept. of Def., Fact Sheet: Building the Second Link, *supra* note 74.

[135] *See* 10 U.S.C. § 701(i) (2012).

[136] *See* DoDI 1327.06, *supra* note 73, para. 1.k.(4).

home, and use the leave consecutively, in order to meet a requirement imposed by the majority of adoption agencies that a parent be present in the home for a period of time after a child is placed in the home.[137] The NDAA for Fiscal Year 2017 responded to Secretary Carter's call to extend adoption leave to the second parent in dual-military marriages by authorizing "secondary caregivers" to take up to twenty-one consecutive days of leave in connection with an adoption.[138]

C. An Additional DoD Parental Accommodation: Deferrals

Maternity, paternity, and adoption leave are not the only aspects of DoD policy that have a significant effect on military members' work-life balance. An additional policy that substantially affects new military parents is the DoD's pre-Force of the Future reforms policy permitting deployment, assignment, and "temporary duty"[139] deferrals.

The DoD maintains a stance that military parents, whether single or married, are "expected to fulfill their military obligations on the same basis" as all other members of the Armed Forces.[140] To that end, military parents remain eligible for duty worldwide, including assignments to dangerous areas.[141] However, the DoD provides an exception to this rule for a period of time following the birth of a child or placement of an adopted child with the military member's family.[142] DoDI 1315.18*, Procedures for Military Personnel Assignments*, sets forth the Department's policy regarding these accommodations for military parents.[143]

Following the birth of a child, a "military mother" will be deferred, for a minimum of four months, from any assignment that would take her

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[137] *See* S. Rep. No. 103-3, at 15 (1993).

[138] NDAA 2017, *supra* note 79, § 521(j)(1).

[139] Temporary duty (TDY) is "[d]uty at one or more locations, other than the permanent duty station, at which a member performs duty under orders." Commissioned Corps Personnel Manual Pamphlet No. 51, *Uniformed Services Personnel Travel and Transportation* 12 (Aug. 1999), https://dcp.psc.gov/eccis/documents/PAM51.pdf. Ordinarily, upon completion of a TDY, the service member returns to his or her permanent duty station. TDYs can last anywhere from a single day to many months.

[140] U.S. Dep't. of Def. Instr. 1315.18, Procedures for Military Personnel Assignments (Oct. 28, 2015) at para. 9.a. [hereinafter DoDI 1315.18].

[141] *Id*.

[142] *Id*. at paras. 9.c-d.

[143] *Id*. at para. 9.

away from her home (or "permanent") duty station including (1) an overseas assignment that does not permit dependents (e.g., civilian spouses or children) to accompany the service member; (2) an overseas assignment in which dependents could be permitted to accompany the military member, but concurrent travel is denied; (3) deployments (e.g., a limited-duration duty in locations such as Iraq or Afghanistan in support of an on-going conflict); or (4) temporary duty (see *supra* note 128).[144] DoDI 1315.18 expressly permits the Military Services to authorize deferments in excess of the DoD four-month standard.[145] Military mothers have the exclusive authority to waive deferments related to the birth of their children.[146] Significantly, there is no reciprocal deferment, of any duration, for military fathers following the birth of a child.[147]

DoDI 1315.18 does, however, provide equal assignment, temporary duty, and deployment deferrals to military mothers or fathers following the placement of an adopted child in his or her home. Single service members, regardless of gender, are deferred for four months from the same assignment types enumerated above, and are the exclusive waiver authority for deferrals.[148] For dual-military couples who adopt a child, only one spouse in the relationship may have their assignment, temporary duty, or deployment deferred for the four-month period.[149] The other is subject to orders that will take him or her away from the couple's home station.[150] The policy states no preference for whether the mother or father should be granted the deferral.[151] Thus, because exclusive waiver authority for the deferment lies with the military couple, it is the couple that has the power to choose which parent will be deferred from any potential assignments.[152] Once again, the Pentagon authorized the Military Services to sanction deferments longer than four months.[153]

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144 *Id*. at 9.d.

145 *Id*.

146 *Id*. The "Military Services" refers collectively to the Army, Navy, Air Force, and Marine Corps. *Id*. at 66.

147 *See generally*, DoDI 1315.18 *supra* note 140.

148 DoDI 1315.18, *supra* note 140, at para. 9.c.

149 *Id*.

150 *Id*.

151 *See generally*, DoDI 1315.18, *supra* note 140.

152 *Id*.

153 DoDI 1315.18, *supra* note 140, at para. 9.c.

The Pentagon's deferment policies for postpartum military mothers, single military members who adopt a child, and one member of a dual-military couple who adopt a child are reiterated, without elaboration, in DoDI 1342.19, *Family Care Plans*.[154] Both DoDI 1315.18 and DoDI 1342.19 fail to specifically address whether or not there is a deferment policy for military members who are married to civilians.[155] In the absence of a specific grant of a deferment accommodation to military members married to civilians, deferment authorization cannot be presumed to exist. Additionally, neither DoDI 1315.18 nor DoDI 1342.19 articulate the Department's reasons either for granting deferrals to military mothers following the birth of a child, or for the absence of deferrals for military fathers in such instances.[156]

While the deployment deferral policy has attracted some sporadic attention from Congress, that attention has been limited to a call for the Pentagon to equalize the duration of mothers' deployment deferrals across the Military Services, with no consideration of extending deployment deferrals to biological fathers.[157] As will be discussed in Part III.B.1, *infra*, the Military Services have exercised the DoD's grant of authority to establish their own Service-specific deferment policies, resulting in vastly different deferment durations for mothers in the various Services. Thus, in 2008, *The Washington Post* highlighted that the Army offered the shortest deployment deferral period, while the length of soldiers' deployments averaged longer than any other Service.[158] In response, Senator Claire McCaskill called for then-Secretary of Defense Robert Gates to establish a "single, equitable policy" for the entire DoD that makes "medical, including psychological, considerations of the mother and newborn the first priority of the policy."[159] No

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[154] U.S. Dep't. of Def. Instr. 1342.19, Family Care Plans (7 May, 2010) at paras. 4.g.(1)-(2) [hereinafter DoDI 1342.19].

[155] *See generally*, DoDI 1315.18, *supra* note 140, and DoDI 1342.19, *supra* note 154.

[156] *Id*.

[157] *See*, *e.g.*, Brian Mann, *Military Moms Face Tough Choices*, Nat'l Pub. Radio (May 26, 2008), http://www.npr.org/templates/story/story.php?storyId=88501564 ("[Sen. Brian Nelson (D-NE)] questioned [Army Secretary Preston M.] Geren about the Army's policy of deploying female soldiers to Iraq just six weeks after they give birth.").

[158] Ann Tyson, *Short Maternity Leaves, Long Deployments*, The Washington Post (Feb. 18, 2008), http://www.washingtonpost.com/wp-dyn/content/article/2008/02/17/AR2008021702324.html.

[159] Press Release, Sen. Claire McCaskill, McCaskill Urges Sec. Gates to Adopt Uniform, Fair Maternity Leave Policy (Feb. 21, 2008), http://www.mccaskill.senate.gov/media-center/news-releases/mccaskill-urges-sec-gates-to-adopt-uniform-fair-maternity-leave-policy.

mention, however, was made of extending deployment deferrals to military fathers.[160] Further, Secretary Carter neither updated the deferral policy as part of his Force of the Future reforms nor publically alluded to any desire to change the policy prior to stepping down as the Secretary of Defense during the Presidential administration changeover in early 2017.

D. Federal Parental Leave Policies

In order to analyze the strengths and weaknesses of the Defense Department's parental leave policies, it is helpful to understand the landscape of rules governing such leave in the U.S. civilian workforce. These rules undoubtedly influenced the Pentagon's decisions regarding its parental leave policies, particularly in ensuring that it was developing a policy that would make it competitive in recruiting new personnel. The remainder of this part is devoted to explaining the foundations of parental leave policies in the U.S.

1. The Pregnancy Discrimination Act

Due to the traditional roles of men and women in American society, wherein males are considered to be the primary breadwinners and females are considered to be the primary caregivers, parental leave did not become a significant, wide-spread issue until women became more predominant in the workforce. When women began entering the workforce in greater numbers during the 1940s, there were few laws pertaining to pregnant employees.[161] Typically, those States that did have such laws required women to take leave from their jobs for a specified period of time before and after childbirth.[162] These laws were paternalistic in nature and were intended to protect the health of the mother; however, because the laws did not provide for employment protection, they often had the effect of "protect[ing] pregnant women right out of their jobs."[163]

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[160] *See id.*

[161] Tighe, *supra* note 33, at 144.

[162] *Id*.

[163] Lisa Bornstein, *Inclusions and Exclusions in Work-Family Policy: The Public Values and Moral Code Embedded in the Family and Medical Leave Act*, 10 Colum. J. Gender & L. 77, 82 (2000) (quoting Wendy W. Williams, *Equality's Riddle: Pregnancy and the Equal Treatment/Special Treatment Debate*, 13 N.Y.U. Rev. L. & Soc. Change 325, 334 (1984)).

Responding to Supreme Court decisions upholding such employer policies that discriminated against pregnant women in job retention, Congress passed the Pregnancy Discrimination Act (PDA) in 1978.[164] The PDA prohibits discriminatory hiring practices or firing of women on the basis of pregnancy.[165] While the PDA was an important step toward curbing discrimination toward women in the workplace, its limited scope left families with minimal, if any, job security when faced with postpartum medical needs or family members with serious health conditions. Also, the growing role of men in the care of their children was unaddressed, as the PDA contained no provisions providing for paternity leave.[166]

Nine years after its enactment, the Supreme Court upheld the PDA and declared that it guaranteed "women the basic right to participate fully and equally in the workforce, without denying them the full participation in family life."[167] The Supreme Court's declaration, however, failed to address not only the job security issue mentioned above, but also the pervasive, albeit more covert discrimination that resulted in mothers being seen as less suitable for advancement and promotion because they did not conform to the "unencumbered employee" expectation of American employers.[168]

Some states attempted to remedy this resulting imbalance of employment and advancement opportunities between men and women through legislation. By 1989, however, only 37% of employees were covered by some such form of family-leave legislation.[169] The need for federal legislation was apparent, although not universally welcome.[170]

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[164] Tighe, *supra* note 33, at 144.

[165] Pregnancy Discrimination Act of 1978, Pub. L. No. 95-555 (1978) (incorporated in 42 U.S.C. S2000e(k) (1981 & Supp. 1992)).

[166] *See id.*

[167] Cal. Fed. Sav. & Loan Ass'n v. Guerra, 479 U.S. 272, 289 (1987).

[168] Tighe, *supra* note 33 (quoting Bornstein, *supra* note 163, at 95-96).

[169] Tighe, *supra* note 33, at 145; Kathryn Branch, *Are Women Worth as Much as Men?: Employment Inequities, Gender Roles, and Public Policy*, 1 Duke J. Gender L. & Pol'y 119, 139-140 (1994) (citing U.S. Bureau of the Census, Statistical Abstract of the United States: 1993 (113th ed.) 431, Table No. 679); *see* discussion, *supra*, Part I.

[170] Tighe, *supra* note 33, at 145 ("Opponents of the FMLA argued that the Act would interfere with employer flexibility and create massive costs to businesses. Critics were also concerned that creating leave requirements directed toward women would provide employers with a further disincentive to hire women.").

2. The Family and Medical Leave Act

Cutting through the diverse array of family leave legislation enacted throughout the States, the Family and Medical Leave Act (FMLA) emerged as the federal standard for family leave, including parental leave, in the United States.[171]

On February 5, 1993, President William Clinton signed the FMLA into law, declaring it guarantees Americans "will no longer need to choose between the job they need and the family they love."[172] Passage of the FMLA signaled the first time the federal government endorsed "work-family policy" through legislation.[173]

In the final version of the bill, Congress made specific findings which demonstrated the driving need for legislation including:

> (1) the number of single-parent households and two-parent households in which the single parent or both parents work is increasing significantly; (2) it is important for the development of children and the family unit that fathers and mothers be able to participate in early childrearing…; (3) the lack of employment policies to accommodate working parents can force individuals to choose between job security and

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[171] Family and Medical Leave Act of 1993, 29 U.S.C. §§ 2601-2654 (1993).

[172] William Clinton, President, U.S., Remarks at the University of Virginia: Signing of the Family Medical Leave Act (Feb. 5, 1993), http://millercenter.org/president/speeches/speech-4562. The first draft of the FMLA was drafted by the Women's Legal Defense Fund in 1984. A version of the FMLA was introduced in Congress every year from 1984 through 1993, but was repeatedly blocked by opponents. National Partnership for Women and Families, *History of the FMLA*, http://www.nationalpartnership.org/issues/work-family/history-of-the-fmla.html (last visited Feb. 1, 2016). Congress passed the legislation in 1991 and again in 1992, but President George H.W. Bush vetoed it each time. *Id.* Finally, nine years after the first introduction of the FMLA, Congress passed the bill again in 1993 and President Bill Clinton made it the first legislation he signed after taking office. *Id.*

[173] Paul Richter & Gebe Martinez, *Clinton Signs Family Leave Bill into Law*, Transportation Projects (Feb. 5, 1993), http://articles.latimes.com/1993-02-06/news/mn-1088_1_family-leave. Notably, Congress passed the Pregnancy Discrimination Act (PDA) in 1978. While the PDA prohibited discriminatory hiring or firing of women due to pregnancy, it was criticized for its focus on pregnancy and mothers' physical disability following childbirth while not making provisions for leave to care for children, or other family members, with serious medical conditions. Tighe, *supra* note 33, at 144-145.

> parenting; (4) there is inadequate job security for employees who have serious health conditions that prevent them from working for temporary periods; (5) due to the nature of the roles of men and women in our society, the primary responsibility for family caretaking often falls on women, and such responsibility affects the working lives of women more than it affects the working lives of men; and (6) employment standards that apply to one gender only have serious potential for encouraging employers to discriminate against employees and applicants for employment who are of that gender.[174]

In order to accommodate or remedy the issues identified in these findings, Congress stated that the purposes of the FMLA were

> (1) to balance the needs of the workplace and families…; (2) to entitle employees to take reasonable leave for medical reasons, for the birth or adoption of a child, and for the care of a child…who has a serious health condition; (3) to accomplish the purposes [of the Act] in a manner that accommodates the legitimate interests of employers; (4) to accomplish the purposes [of the Act] in a manner that…minimizes the potential for employment discrimination on the basis of sex by ensuring generally that leave is available…on a gender-neutral basis; and (5) to promote the goal of equal employment opportunity for women and men….[175]

The FMLA provides unpaid leave to eligible employees who work for an employer that maintains fifty or more employees per working day for twenty or more workweeks in the current or previous calendar year.[176] Notably, FMLA benefits apply equally to both male and female employees. Thus, an eligible male or female employee may take up to twelve workweeks of leave during any twelve-month period for the birth or adoption of a child.[177] The FMLA default is that the twelve workweeks of family leave will be taken consecutively.[178] However, upon agreement between the employer and

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[174] 29 U.S.C. § 2601(a)(1)-(3), (5)-(6) (1993).

[175] *Id*. § 2601(b)(1)-(5).

[176] *Id*. §§ 2612(c); 2611(2)(B)(ii); 2611(4)(A)(i). The fifty employees must be within a seventy-five-mile radius. *Id*. at § 2611(2)(B)(ii).

[177] *Id*. § 2612(a)(1).

[178] *Id*. § 2612(b)(1).

employee, the employee may take the leave intermittently, when medically necessary.[179] If leave is taken intermittently, the employee is still entitled to an aggregate of twelve workweeks of leave.[180]

Furthermore, the FMLA provides that employers must continue the employee's health care coverage while he or she is on family leave.[181] Upon return to work, the employer must reinstate the employee to the same position he or she occupied prior to taking leave or to a position with equivalent "benefits, pay, and other terms and conditions of employment."[182]

To be eligible for FMLA benefits, the employee must have been employed by the employer from whom he or she is requesting leave for at least twelve months and must have completed at least 1,250 hours of work for that employer within the previous twelve months.[183] Additionally, an employer may elect to not restore "highly compensated employees" to their pre-leave position or an equivalent position.[184] The phrase "highly compensated employees" is defined by the Act as "employee[s] who [are] among the highest paid 10% of the employees employed by the employer."[185] Also, the FMLA does not cover certain Federal officers or employees or uniformed members of the Armed Forces.[186]

As a result of these requirements limiting eligibility for both employers and employees, only an estimated 59%[187] of employees were eligible for FMLA benefits in 2012, which is a decline from an estimated 66%[188] of employees who were eligible for FMLA benefits in 2003. Furthermore,

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[179] *Id*.

[180] *Id*.

[181] *Id*. § 2614(c)(1).

[182] *Id*. § 2614(a)(1)(A)-(B).

[183] *Id*. § 2611(2)(A)(i)-(ii).

[184] *Id*. § 2614(b).

[185] *Id*. § 2614(b)(2).

[186] *Id*. § 2611(2)(B)(i). The FMLA amended 5 U.S.C. § 6301 (2006) to cover civil service employees, but it did not amend 10 U.S.C. § 701 to cover uniformed members of the Armed Forces.

[187] Abt Associates Inc., *Family and Medical Leave in 2012: Technical Report, Prepared for U.S. Department of Labor*, Contract #GS10F0086K, (Sept. 7, 2012, revised Apr. 18, 2014), at 2, http://www.dol.gov/asp/evaluation/fmla/FMLA-2012-Technical-Report.pdf.

[188] Kenneth G. Dau-Schmidt & Carmen Brun, *Protecting Families in a Global Economy*, 13 Ind. J. Global Legal Stud. 165, 200 (2006).

the FMLA has been heavily criticized because many employees who are otherwise eligible for FMLA coverage decline to take family leave because they cannot afford the lost income.[189]

The FMLA also provides flexibility to employers in an effort to "accommodate [their] legitimate interests."[190] For instance, although employers must continue an employee's health care coverage during FMLA leave, if the employee fails to return to work following the allotted leave period, for reasons beyond the employees' control, the employer may recover the premiums it paid for the employee's medical coverage.[191] Also, as stated above, employers are not required to cover "highly compensated employees" or employees whom they have employed for less than twelve months or who have not performed at least 1,250 hours of work for the employer in the current or previous year.[192] Further, an employer generally may substitute an employee's accrued paid leave for any portion of the twelve-week FMLA period.[193] Employers may also require employees to provide thirty calendar days' notice for foreseeable use of FMLA leave and, in cases of authorized intermittent leave, to temporarily transfer the employee to an equivalent position better suited to accommodate the employees' absences.[194] Finally, to discourage abuse, employers may require a doctor's certification stating that the employee is unable to return to work due to the employee's own health condition or because the employee is needed to care for his or her child due to the child's serious health condition.[195]

In January 1993, prior to Congress passing the FMLA, the Labor and Human Resources Committee submitted a report to the Senate in which it recommended the Senate pass the Act. In the report, the committee presented substantial findings supporting the need for the legislation. At the outset, the committee noted that "[p]rivate sector practices and government policies have failed to adequately respond to recent economic and social changes that have intensified the tension between work and family" and that the

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[189] *See*, *e.g.*, Erin Gielow, *Equality in the Workplace: Why Family Leave Does Not Work*, 75 S. Cal. L. Rev. 1529, 1546 (2002); Michael Selmi, *Is Something Better than Nothing? Critical Reflections on Ten Years of the FMLA*, 15 Wash. U. J.L. Pol'y 65, 67 (2004).

[190] 29 U.S.C. § 2601(b)(3) (2012).

[191] *Id*. § 2614(c)(1)-(2).

[192] *Id*. §§ 2614(b), 2611(2)(A)(i)-(ii).

[193] *Id*. § 2612(d)(2)(A).

[194] *Id*. § 2612(e), (b)(2).

[195] *Id*. § 2614(c)(3).

failure "impose[s] a heavy burden on families, employees, and employers and the broader society."[196] Referencing a report created by the Government Accountability Office (GAO), the committee noted that each year for the past forty years, the number of females in the work force has increased by approximately one million new workers.[197] Further, the work force saw more than a 200% increase in the number of female employees between the years 1950 and 1990.[198] Additionally, the Bureau of Labor Statistics (BLS) predicted that 66.1% of women nationwide would be participating in the workforce by 2005.[199]

The Committee defended the legislation as being in line with other employment legislation establishing minimum standards that had become accepted as common place, including laws regarding child labor, minimum wage, workplace health and safety, pension safeguards, and minimum standards for leave.[200] Like the FMLA, the legislation creating each of those standards arose from changing societal interests and from problems with broad ramifications.[201] Also, like the interests to be protected by the FMLA, Federal standards were needed because "voluntary corrective actions on the part of employers had proven inadequate."[202] By providing uniform standards, the FMLA would require businesses to maintain minimum protections for their employees "without jeopardizing or decreasing competitiveness" that employers feared could result by implementing such pro-employee measures voluntarily while other employers do not.[203]

The Committee went on to explain the inadequacy of existing family leave policies in the U.S. Relying on another study conducted by the BLS, the Committee observed that approximately 33% to 37% of "full-time employees working in private business with more than 100 workers" were

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196 S. Rep. No. 103-3, at 4 (1993).

197 *Id.* at 5.

198 *Id*.

199 *Id*. According to the Department of Labor, Women's Bureau, women's participation in the labor force did not increase quite a much as the Bureau of Labor Statics predicted. As of 2005, women's work force participation had risen to 59.3%, rather than the predicted 66.1%. Bureau of Labor Statistics, Employment Status of Women and Men in 2005, http://www.dol.gov/wb/factsheets/qf-eswm05.htm (last visited on Feb. 6, 2016).

200 S. Rep. No. 103-3, at 4 (1993).

201 *Id*.

202 *Id*.

203 *Id*. at 18.

covered by unpaid maternity leave and only 16% to 18% were covered by unpaid paternity leave.[204] Additionally, a report relied upon by the Committee found that out of 253 U.S. corporations surveyed, 73% had no form of parental leave program whatsoever and that 62% of those corporations stated they "would offer such a program only if required to do so by State or Federal Governments."[205] The Committee also remarked on the difficulties faced by adoptive parents who are not covered by a reasonable family leave policy, resulting from a requirement by most adoption agencies that a parent be present in the home immediately following placement of a child with the family. Some agencies require a parent's presence for as long as four months to "allow [the parent and child] adequate time for proper bonding."[206]

To bolster its recommendation to pass the FMLA, the Committee also illustrated the inferiority of America's support for its working families, pointing out that "[w]ith the exception of the United States, virtually every industrialized country, as well as many Third World countries, have national policies that require employers to provide some form of maternity or paternity leave."[207] Specifically, 135 countries already provided maternity benefits, at a minimum, with 127 of those countries also providing wage replacement.[208] The Committee urged the Senate to pass the FMLA in order to help narrow the gap in work-family balance between the United States and other countries.[209] The Committee also briefly reviewed family leave legislation adopted by the States. At that time, twenty-eight states, the District of Columbia, and Puerto Rico had passed some form of family or medical leave legislation.[210]

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[204] *Id*. at 14-15.

[205] *Id*. at 15. Despite this finding, the committee concluded elsewhere in its report that "[e]ven without minimum standards, most employers would…offer their employees decent benefits." *Id*. at 4.

[206] *Id*. at 5.

[207] *Id*. at 19. The committee specifically exemplified the following countries: Japan, for providing twelve weeks of partially paid pregnancy disability leave; Canada, for providing maternity leave for up to forty-one weeks while receiving 60% of the mother's salary for the first fifteen weeks; France, Great Britain, and Italy, for providing maternity benefits as part of paid sick leave (all of which had similar laws in place since before World War I); and Sweden, for providing eighteen months of family leave at about 90% of the parent's gross pay. The committee also noted that the European Community Commission issued a directive in September 1992 requiring all member countries to provide a minimum of fourteen weeks paid maternity leave. *Id*.

[208] *Id*.

[209] *Id*.

[210] *Id*. at 20. The twenty-eight States with family or medical leave laws as of January 1993 were Alaska, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois,

Further strengthening its support for passing the Act, the Committee explained that the FMLA would prove to be cost effective. Specifically, it praised the legislation for its potential to reduce costs associated with hiring, training, turnover, and absenteeism.[211] The Committee relied on a 1992 Families and Work Institute Study, based on a survey of 331 supervisors, which concluded that "providing parental leave is more cost-effective for employers than permanently replacing employees who need leave."[212] The Study also asserted that 94% of employees who take parental leave return to work for their employer and that 75% of supervisors believe parental leave had a positive effect on the company's business.[213]

Finally, the Committee touted the fact that the FMLA would cover all qualified employees, both male and female.[214] The Committee cautioned that protective laws that apply only to women, or any immutable group, not only risk causing discriminatory treatment toward the protected group, but could also be inequitable under the Equal Protection and Due Process Clauses of the Fourteenth Amendment of the United States Constitution.[215]

Secretary Carter likely had the FMLA in mind when he remarked that the DoD's new twelve-week maternity leave policy "puts DoD in the top tier of institutions nationwide."[216] In some ways, particularly in that the DoD's policy provides for 100% paid leave, it is superior to the FMLA. Just as the FMLA has been criticized because lower-wage employees are unable to take full advantage of the authorized family leave because they

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Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Washington, West Virginia, and Wisconsin. *Id*. at 20-21.

[211] *Id*. at 12-13.

[212] *Id*. at 17.

[213] *Id*. at 17.

[214] *Id*. at 16.

[215] *Id*. In pertinent part, the Fourteenth Amendment states, "No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any state deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." U.S. Const. amend XIV, § 1. For an interesting argument regarding how one-sided maternity leave can cause gender discrimination toward women, *see* Theresa Bresnahan-Coleman, *The Tension Between Short-Term Benefits for Caregivers and Long-Term Effects of Gender Discrimination in the United States, Canada, and France*, 15 New Eng. J. Int'l & Comp. L. 151 (2009).

[216] Carter, Force of the Future, *supra* note 2.

could not afford to be without a paycheck for twelve weeks, lower-ranking enlisted military members would have faced the same dilemma if the DoD's policy had provided only for unpaid leave. By authorizing paid leave, the DoD's policy will ensure that all ranks are able to benefit. The DoD's policy, however, falls far short of the FMLA in terms of paternal leave. It thereby sets up the different protective standards that could cause discriminatory treatment toward the protected group that the Labor and Human Resources Committee understood and warned the Senate about over twenty years ago.

III. Analysis

A. The DoD's Extended Maternity Leave Policy is a Step in the Right Direction

Guaranteeing twelve weeks of maternity leave across all the Military Services was a smart way for the DoD to make itself appear to be a more attractive employer to potential female recruits. The decision also has a direct, tangible impact that will help service women attain greater work-life balance. Extended maternity leave will invariably lead to better post-leave performance by new mothers, but could also lead to more loyal service and, at least in the short term, increased retention rates.

The Defense Department Advisory Committee on Women in the Service reported that a leading reason women voluntarily separate from the military is to concentrate on starting or raising a family.[217] Service women are more likely than their male counterparts to leave military service to become a full-time parent or to pursue civilian employment that is more conducive to raising their children.[218] A 2010 study by the Military Leadership Diversity Commission found that, for officers, women voluntarily separated from the military at a rate up to 20% higher than men between their fourth and twelfth year of service.[219] Four to twelve years of service corresponds to approximately twenty-six to thirty-four years of age on average, which are prime childbearing years. The Commission also found, for enlisted service

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[217] Steven Smith, *Committee Examines Issues of Women Separating from Military*, DoD News (Aug. 28, 2006), http://archive.defense.gov/news/newsarticle.aspx?id=612.

[218] Sara Root, *Capitalizing "F" Is Not Enough: The Army Should Revise Its Postpartum Leave Policies to Better Support the Army Family*, 201 Mil. L. Rev. 132, 169 (2009).

[219] Military Leadership Diversity Comm'n, Officer Retention Rates Across the Services by Gender and Race/Ethnicity 2-3 (Mar. 2010), https://www.hsdl.org/?view&did=716147.

members, the greatest gap between reenlistment rates for men and women occurred between six and ten years of service.[220] More recently, Secretary Carter stated that the retention difference between men and women during their prime years for starting a family had swelled to 30%.[221] Clearly something had to be done if the military wanted to retain more of its service women. And so, it was in recognition that the conflict between work and family was a primary reason for women leaving the Service that Secretary Carter instituted the DoD-wide twelve-week maternity leave policy.[222]

The military will reap additional benefits from this policy beyond recruiting and improved mid-career retention of its female service members. Most notably, it will gain improved duty performance and productivity and more reliable attendance of its new mothers because, as studies have shown, longer periods of maternity leave are linked to better physical and psychological health of both the new mother and the child.

1. Improved Duty Performance

Following a mother's return from maternity leave, the Military Services are likely to see improved attendance from its service women compared to their attendance rates following the previous six-week maternity leave policy. By classifying maternity leave as a form of convalescent leave, the military is clearly in tune with the fact that the physical trauma of childbirth makes a new mother unfit for duty for an extended period of time. What the Pentagon may not have realized until recently though, is that research shows that postpartum fatigue "is the same, or higher" six weeks after delivery as it is at the time of delivery.[223] In fact, postpartum fatigue is considered progressive and continues beyond what the DoD previously considered the postpartum period.[224] However, when a new mother is able to take eight to twelve weeks of maternity leave, she experiences "[a] decrease in maternal depressive symptoms…[and] better vitality."[225] Other studies have found that

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[220] Military Leadership Diversity Comm'n, Reenlistment Rates Across the Services by Gender and Race/Ethnicity 2-3 (Apr. 2010), https://www.hsdl.org/?view&did=716162.

[221] Carter, Force of the Future, *supra* note 2.

[222] *Id*.

[223] Nancy Troy, *A Comparison of Fatigue and Energy Levels at 6 Weeks and 14 to 19 Months Postpartum*, 8 Clinical Nursing Res. No. 2, at 135, 135 (1999).

[224] Root, *supra* note 218, at 162 (citing *id*.).

[225] *Id*. (quoting Katharina Staehelin et al., *Length of Maternity Leave and Health of Mother and Child—A Review*, 52 Int. J. Pub. Health 202, 207-08 (2007)).

six to eight weeks of maternity leave only accounts for time for the mother to recover exclusively from the trauma of childbirth.[226] As such, six-week maternity leave periods do not provide new mothers the necessary time to adjust both mentally and emotionally to parenthood while simultaneously battling postpartum fatigue and preparing to return to full time employment.[227] Consequently, by doubling the length of maternity leave, the DoD helped ensure that new mothers will return to service less fatigued and better equipped to balance parenthood with their military duties.

Additionally, shorter maternity leaves have been proven to have a detrimental effect on the long-term relationship between a mother and her child.[228] Dr. Berry Brazelton, one of the world's leading child development experts, testified before a congressional subcommittee for the FMLA that "parents who have to leave their baby too soon guard themselves against attaching to the baby."[229] Rather than focusing on bonding with the baby, they are focused on time constraints and preparing for substitute childcare.[230] Thus, by allowing new mothers additional time to bond with their infants, the DoD is helping to prevent parent-child relationship problems that could follow service women throughout their careers, continually causing distractions from optimal duty performance and productivity.

2. Reliable Attendance

Military childcare centers have strict policies preventing children who are exhibiting signs of illness from remaining at the centers.[231] As a result,

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[226] *Id*. at 163 (citing *Parental and Disability Leave: Joint Hearing on H.R. 2020 Before the Subcommittee. on Civil Service and the Subcommittee. on Compensation & Employee Benefits of the Comm. on Post Office & Civil Service, and the Subcommittee. on Labor Mgmt. Relations & the Subcommittee. on Labor Standards of the Comm. on Educ. & Labor, 99th Cong. 21* (1985) [hereinafter PDL Subcommittee Hearing]).

[227] *Id*.

[228] *Id*.

[229] *Id*. at 164 (citing PDL Subcommittee Hearing, *supra* note 226, at 49).

[230] *Id*. (citing PDL Subcommittee Hearing, *supra* note 226, at 54).

[231] For example, a parent handbook for an Air Force childcare center states that in accordance with Air Force policy, caregivers will do a health inspection when the child arrives at the center. If the child exhibits any symptoms of illness he or she will not be permitted to stay. Further, if a child develops any signs of illness, such as a fever in excess of 101 degrees, an upset stomach, or "any sign of eye, ear, or nose infections," the center will notify a parent to pick up the child. Subsequently, the child will not be permitted to return to day care until he or she has been symptom free for 24 hours. Finley and DM Child Development Center Parent Handbook (May 2005) at 4, http://www.

when a child is ill, a parent often has to be absent from work to remain home to care for the child. Therefore, having a healthy child promotes more reliable attendance by the parent.

Research shows that maternity leave lasting for eight to twelve weeks leads to measurably improved health of the children. One such study found that for each additional week of paid maternity leave, the infant mortality rate decreased by 2% to 3%.[232] On the other hand, infants who attend daycare are at an increased risk for developing infections.[233] Additionally, children under one year of age are 69% more likely to require hospitalization for an acute respiratory infection during their first six months at a day care facility than those children who were cared for at home.[234] Thus, the longer an infant is able to stay at home, rather than at a childcare facility, the healthier he or she will be.

In addition to delaying care at a childcare facility, another factor that makes a significant difference in the health of the child is duration of breastfeeding. Not surprisingly, longer maternity leave is directly linked to mothers continuing to breastfeed for longer periods of time after childbirth.[235] According to the American Academy of Pediatrics, breastfeeding leads to numerous health benefits for the infant including decreased incidences of diarrhea, respiratory tract infection, ear infection, and urinary tract infection.[236] Additionally, older children who were breastfed as infants are less likely to

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dmforcesupport.com/CDC/Docs/cdcparenthandbook.doc. Similarly, a parent handbook for an Army childcare center states that children will be denied admission or sent home if they exhibit signs of illness including temperatures above 100.5 degrees Fahrenheit, severe diarrhea or vomiting, or a persistent cough. Upon notification, a parent or guardian must pick up the child within two hours. Again, the child will be denied readmission until he or she has been symptom free for 24 hours. U.S. Army Child, Youth & School Services, Fort Benning Installation Parent Handbook 20-21 (2014), http://www.benningmwr.com/documents/cyss/FB%20Handbook%20Central.pdf.

[232] Root, *supra* note 218, at 155 (citing Christopher J. Ruhm, *Parental Leave and Child Health*, 19 J. of Health Econ. 931, 932 (2000)).

[233] *Id*. at 156.

[234] *Id*. at 157 (referencing Mads Kamper-Jorgensen et al., *Population-Based Study of the Impact of Childcare Attendance on Hospitalizations for Acute Respiratory Infections*, 110 Pediatrics No. 4, at 1439 (2006)).

[235] *Id*. (citing Michael Baker et al., *Maternal Employment, Breastfeeding, and Health: Evidence from Maternity Leave Mandates*, 27 J. of Health Econ. 871, 872 (2008)).

[236] American Academy of Pediatrics, *Breastfeeding and the Use of Human Milk*, Pediatrics, Vol 129/Issue 3 (2012), http://pediatrics.aappublications.org/content/129/3/e827#T1.

develop lymphoma, leukemia, obesity, and asthma.[237] One study quantified these health benefits by comparing infants that were predominantly breastfed to infants who were exclusively fed formula.[238] That study found that of all the infants that did not have any illnesses over the course of the study, 86% were from the breastfed group.[239] Mothers also personally experience health benefits from breastfeeding. These benefits include an earlier return to pre-pregnancy weight, decreased postpartum bleeding, and decreased risk for breast cancer.[240]

Despite these benefits, rates of breastfeeding still remain relatively low. As of 2016, 81% of all biological mothers in the U.S. initiated breastfeeding, but only 52% were still breastfeeding after six months, and only 31% after a year.[241] Mothers report their return to work as the primary reason why they stop breastfeeding.[242] Similarly, the leading reason mothers report not initiating breastfeeding is because of limited time before they have to return to work.[243] In particular, researchers have found that women who have to return to work within six weeks of giving birth are far less likely to initiate breastfeeding.[244] One such study found that for every additional week of maternity leave a mother is able to take, her breastfeeding duration increases by three to four days and there is a similar increase in the frequency of mothers who initiate breastfeeding.[245] Thus, the longer a woman's maternity leave, the more likely it is that she will initiate and continue breastfeeding her child and, therefore, have a healthier child.

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[237] *Id*.

[238] Root, *supra* note 218, at 160 (citing generally Rona Cohen et al., *Comparison of Maternal Absenteeism and Infant Illness Rates Among Breast-Feeding and Formula-Feeding Women in Two Corporations*, 10 Am. J. of Health Promotion No. 2, 148 (1995)).

[239] *Id*.

[240] American Academy of Pediatrics, *Breastfeeding and the Use of Human Milk*, Pediatrics, Vol 115/Issue 2 (2005), http://pediatrics.aappublications.org/content/115/2/496 (last visited Apr. 2, 2016).

[241] *Breastfeeding Rates Continue to Rise in the U.S.*, Centers for Disease Control and Prevention, https://www.cdc.gov/breastfeeding/data/breastfeeding-report-card-2016.html (last visited Aug. 22, 2016).

[242] Root, *supra* note 218, at 158 (citing Baker, *supra* note 235, at 827.)

[243] *Id*.

[244] *Id*. at 158-59 (citing Gerald Calnen, *Paid Maternity Leave and Its Impact on Breastfeeding in the United States: An Historic, Economic, Political, and Social Perspective*, 2 Breastfeeding Med. No. 1, 34 (2007)).

[245] *Id*. at 161 (citing Ruhm, *Parental Leave and Child Health*, *supra* note 232, at 952).

Overall, the DoD's new twelve-week maternity leave policy will benefit both service women who give birth and the Armed Forces. Although each military unit will be without their new military mothers for an additional six weeks under the new DoD policy, when the service woman returns to duty, her performance will be better due to her improved physical and mental health, and her attendance will be more reliable because her child stands a better chance of being healthy too. The new policy is also a dramatic message that the Armed Forces are a viable option for women seeking employment that offers work-life balance. Therefore, the Pentagon's new policy was a step in the right direction to immediately improve the DoD's ability to recruit and retain women.

B. The DoD Parental Accommodations Scheme May Prove to Be a Pyrrhic Victory for Military Mothers

"A law providing special protection to women or any defined group, in addition to being inequitable, runs the risk of causing discriminatory treatment."[246] The Labor and Human Resources Committee provided this warning to the Senate during hearings on the FMLA.[247] The Senate understood this important concept, which underscored its decision to make the FMLA a gender-neutral benefit. Both Congress and the DoD, however, seem to have discarded this principle in creating its various parental accommodation policies for the military.

The ideal of equal treatment is fundamental to our political and legal system: those who are similarly situated should be treated alike.[248] Modern notions of gender equality in employment promote the parity of men and women to be able to work successfully in spheres traditionally monopolized by the opposite gender. In biological terms, however, men and women are not similarly situated.[249] Only women are capable of becoming pregnant, giving birth, and breastfeeding. These unique experiences can drive different medical needs and work-life balance expectations for women. Consequently, perfect equality between the parental accommodations designed for military mothers and military fathers may not be possible due to the unique environment

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[246] S. Rep. No. 103-3, at 16 (1993).

[247] See discussion, *supra*, Part II.D.2.

[248] Lucinda M. Finley, *Transcending Equality Theory: A Way Out of the Maternity and the Workplace Debate*, 86 COLUM. L. REV. 1118, 1142 (1986).

[249] *Id*.

of the military, wherein policymakers must balance the needs for diversity, recruiting, and retention with operational readiness.[250]

Nonetheless, the Pentagon needs to heed the warning about the dangers of providing special protection to a defined group. By bestowing potentially unnecessarily generous special treatment upon women, without reciprocating significant parental accommodations for men, the Pentagon has established a scheme that runs the risk of ultimately disadvantaging military mothers and undermining its own retention efforts. A discussion of the potential disadvantageous outcomes of the DoD's inequitable parental accommodations scheme follows.

1. Military Service-Specific Parental Accommodation Policies

Each of the Military Services has tailored the DoD-authorized parental accommodation programs to comport with their service-specific needs and institutional values. While Secretary Carter's January 2016 reforms superseded any individualized maternity leave policies established by the Military Services, looking at those policies, along with the rest of the parental accommodations, provides insight into the value each Service placed on matters such as accomplishment of the mission, increasing diversity, normalization of gender roles, career advancement, and work-life balance.

a. Parental Accommodations in the Navy

The Department of the Navy has been a leader among the Military Departments in striving to recognize the parental needs of its service members and enabling them to achieve greater work-life balance. In 2005, the Navy published its *Policy on Parenthood and Pregnancy*, in which it vowed to "accommodate the career and welfare needs of service members who are parents to the greatest extent possible."[251] The policy also expresses the Navy's commitment "to ensure equality of opportunity while maintaining operational readiness and supporting a higher-performing workforce."[252]

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[250] Overly generous parental accommodations and the resulting unavailability of military parents could affect the combat readiness of the Armed Forces.

[251] U.S. Dept of Navy, Sec'y of Navy Instr. 1000.10A, Department of the Navy (DON) Policy on Parenthood and Pregnancy (9 Sept. 2005) at para. 7.a.(1) [hereinafter SECNAVINST 1000.10A].

[252] *Id*. at para. 1.

Consequently, it is not surprising that the Department of the Navy was the first of the Military Departments to provide its female service members with effectively longer maternity leave than the pre-reform DoD policy.[253] Secretary of the Navy Raymond Mabus first publically floated the idea of extending maternity leave in May 2015, at which time he was considering proposing legislation to override the DoD's then-six-week maternity leave policy with an amendment to Title 10 that would have authorized twelve weeks of maternity leave.[254]

Secretary Mabus quickly changed course, however, and on July 2, 2015, announced a new Department of the Navy-wide policy authorizing commanders to grant service women who give birth to a child up to eighty-four days of convalescent leave beyond the six weeks of maternity leave.[255] Secretary Mabus' announcement provided Department of the Navy women with up to eighteen aggregate weeks of maternity-plus-convalescent leave, which is three times as long as the previous standard that relied solely on the six-weeks of maternity leave granted by the DoD.[256]

Under the Department of the Navy's maternity leave plan, commanders retained the ability to balance the needs of their mission with the needs of new mothers under their command. While it remained mandatory for commanders to grant the initial six weeks of maternity leave, commanders had the flexibility to grant "up to" eighty-four days of convalescent leave.[257] This arrangement provided commanders significantly more flexibility than previously allowed under the Navy's convalescent leave policy, which ordinarily required the recommendation of an attending physician before the commander could authorize additional leave and capped grants of convalescent leave to

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[253] Cortney O'Brien, *U.S. Navy Triples Maternity Leave, Air Force Looks to Follow Suit*, Townhall (July 11, 2015), http://townhall.com/tipsheet/cortneyobrien/2015/07/11/us-navy-extends-maternity-leave-n2023450; DoDI 1327.06, *supra* note 73, at para. 1.k.(2).

[254] Meghann Myers, *Mabus Triples Maternity Leave from Six to 18 Weeks*, NavyTimes (July 2, 2015), http://www.navytimes.com/story/military/2015/07/02/navy-secretary-ray-mabus-maternity-leave-18-weeks/29625963/; DoDI 1327.06, *supra* note 73, at para. 1.k.(2).

[255] Press Release, Department of the Navy, SECNAV Announces New Maternity Leave Policy (2 July, 2015), http://www.navy.mil/submit/display.asp?story_id=87987.

[256] *Id*.; DoDI 1327.06, *supra* note 73, at para. 1.k.(2).

[257] U.S. Dep't of Navy, Naval Administration No. 182-15, Maternity and Convalescent Leave Policy (25 Feb., 2015) at paras. 3, 4.b [hereinafter NAVADMIN 182-15]; U.S. Dep't of Navy, All Navy No. 053/15, Department of the Navy Maternity and Convalescent Leave Policy (2 July, 2015) at para. 5 [hereinafter ALNAV 053/15].

periods of up to thirty days.[258] Further, while the initial six weeks of maternity leave were required to be taken immediately following the mother's release from the hospital, per DoD policy, the additional eighty-four days of convalescent leave could have been used anytime within one year of the child's birth and did not need to be taken continuously.[259] Finally, the additional convalescent leave was only available to mothers who retained custody of their newborns, indicating that the additional leave was for reasons other than the physical health of the mother.[260]

When Secretary Mabus announced the Department of the Navy's new maternity leave policy, he recognized the difficult choice service women are asked to make between continuing to answer the call to service and being away from their children for prolonged periods of times.[261] He also expressed his desire to "demonstrate…commitment…to the women who are committed to serve," by providing "[m]eaningful maternity leave when it matters most."[262] Additionally, when Secretary Mabus provided written guidance to his military forces, he emphasized that "[e]xtended time for a mother with her newborn has tremendous health and psychological benefits for both the mother and child, and helps to ensure that the mother is fully prepared to return to her duties without having to sacrifice crucial time with her child."[263] He also specifically stated that the additional maternity leave would not only provide mothers with time to recover, but would also give them time to bond with their child.[264] Secretary Mabus anticipated these changes would help to recruit more women into the Navy and Marine Corps.[265] Finally, noting that when Google increased its maternity leave policy from twelve to eighteen

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[258] *See* U.S. Dep't of Navy, Naval Military Personnel Manual 1050-180, Convalescent Leave (22 Aug., 2002).

[259] NAVADMIN 182-15, *supra* note 257, at para. 3.

[260] *Id*. at para. 5.

[261] Myers, *supra* note 254.

[262] *Id.*

[263] ALNAV 053/15, *supra* note 257, at para. 4. On December 31, 2015, the author filed a Freedom of Information Act request with the Department of the Navy requesting a copy of all "reports, studies, memoranda, letters, etc." the Navy used to determine its new maternity leave policy. On March 1, 2016, the Navy responded with a single document that described the Navy's authority to set the policy as it did, but did not provide any documents that were actually responsive to the request.

[264] *Id*. at para. 3.

[265] *Id*.; Bryce Covert, *The Navy Wants to Double Its Paid Maternity Leave to Attract More Women*, Think Progress (May 14, 2015), http://thinkprogress.org/economy/2015/05/14/3659147/navy-paid-maternity-leave/.

weeks in 2007, the attrition rate for its female employees dropped by 50%, Secretary Mabus likewise expected his new maternity leave policy to help the Department of the Navy retain its skilled, experienced service women.[266]

Despite Secretary Mabus' pioneering efforts, his eighteen-week maternity leave initiative was superseded by Secretary Carter's twelve-week DoD-wide maternity leave mandate less than seven months after its inception.[267] Nonetheless, the Department of the Navy made its mark on additional parental accommodations that have survived the DoD's reforms.

Although the Military Services had considerably less ability to manipulate paternity leave due to its legislative underpinnings, the Navy implemented a policy that maximized the flexibility of paternity leave for both the Navy and new fathers. Despite the DoD's guidance that paternity leave "should be taken consecutively,"[268] the Navy directed that "[t]he full 10 days of paternity leave need not be taken in a single block…."[269] However, Navy guidance advised that paternity leave "should commence once the child is born in order to assist the parent(s) in adapting to the demands of parenthood, formalizing legal requirements, establishing a child care program, and other tasks as required."[270] This attempt at flexibility, however, is now superseded by the NDAA for Fiscal Year 2017's requirement that leave be taken consecutively.[271] Nonetheless, the Navy also maximized flexibility for commanding officers by allowing them to grant paternity leave on a case-by-case basis, taking into consideration the "unit's mission, specific operational circumstances, and [the] service member's [particular job]" meaning commanders can deny requests for paternity leave or grant less than twenty-one days.[272]

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[266] *Id*.

[267] When he directed the new DoD-wide maternity leave policy, Secretary Carter smoothed the waters with new Department of the Navy mothers and mothers-to-be by providing a grandfather clause, which entitled them to up to eighteen weeks of maternity leave if they became pregnant or gave birth on or before March 3, 2016. DTM 16-002, *supra* note 70, at 2.

[268] DoDI 1327.06, *supra* note 73, para. 1.k.(5).

[269] U.S. Dep't of Navy, Naval Military Personnel Manual 1050-430, Paternity Leave (2 Dec., 2008) at para. 1.d. [hereinafter MILPERSMAN 1050-430].

[270] U.S. Dep't of Navy, Chief of Naval Operations Instr. 6000.1C, Navy Guidelines Concerning Pregnancy and Parenthood (14 June, 2007) at Enclosure 1, para. 201.a.(1) [hereinafter OPNAVINST 6000.1C].

[271] *See* NDAA 2017, *supra* note 79, § 521(j)(3).

[272] MILPERSMAN 1050-430, *supra* note 269, at para. 1.b.

The Navy did not make any significant changes to the DoD's policy regarding adoption leave.[273] It did, however, reiterate that commanding officers "may" authorize an adopting parent "up to" twenty-one days of adoption leave, thereby preserving some flexibility for commanding officers to balance the needs of their mission against the needs of their personnel.[274]

Finally, the Navy's approach to the parental accommodation policy regarding assignment, temporary duty, and deployment deferrals is particularly important due to the unique nature of the Navy's mission, which necessitates having sailors at sea for significant periods of time.[275] Participation in sea duty, as opposed to shore duty, is also critical to upward progression for most sailors.[276] The Navy will allow a pregnant service woman to remain onboard a ship until her twentieth week of pregnancy, so long as a medical treatment facility capable of handling obstetrical emergencies is located within six hours of the ship.[277] Similarly, with an appropriate waiver, pregnant service members may retain their flight status until their twenty-eighth week of pregnancy, subject to limitations on certain aircraft.[278]

With regard to service members who adopt a child, the Navy followed the DoD's policy by authorizing a four-month deferral for one service member per family.[279] However, since 2007, the Navy's policy for birth mothers has been far more generous than the four-month-minimum deferment allowed by the DoD.[280] Under Navy policy, service women's assignments, including deployments onboard ships, are deferred for twelve months following the birth of a child.[281] A commanding officer does not have the authority to shorten the duration of the deferment; only the service woman may request

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[273] *See* U.S. Dep't of Navy, Naval Military Personnel Manual 1050-420, Adoption Leave (Dec. 6, 2006) [hereinafter MILPERSMAN 1050-420].

[274] *Id*. at para. 1.

[275] *See* SECNAVINST 1000.10A, *supra* note 251, para. 3.c.

[276] Sandra Jontz, *Navy Transfers Expectant Mothers from Ship to Shore to Finish Tour*, Stars & Stripes (July 11, 2009), http://www.stripes.com/news/navy-transfers-expectant-mothers-from-ship-to-shore-to-finish-tour-1.93246.

[277] OPNAVINST 6000.1C, *supra* note 270, at para. 104.e.(2).

[278] *Id*. at para. 104.e.(3)(a)1.

[279] *Id*. at para. 202.b.(2).

[280] DoDI 1315.18, *supra* note 140, at para. 9.d; *New Instruction Underscores Navy's Commitment to Family Issues*, Captain's Call (June 20, 2007), http://www.navy.mil/cck/NNS070620-04.pdf.

[281] OPNAVINST 6000.1C, *supra* note 270, at para. 104.a, c.2.

a waiver.[282] The stated purpose of the Navy's deferral period is to "allow the service woman time to regain her physical strength and stamina in order to perform the duties commensurate with her rate/rank."[283] This stated purpose, however, contradicts the Navy's policy regarding fitness assessments. After returning to duty following child birth, sailors must take a fitness assessment within six months and "conform to the acceptable height/weight standards."[284] Thus, on the one hand, the Navy is saying that it expects it to take twelve months for a woman to "regain her physical strength," but on the other hand it expects it to take six months or less for a woman to become physically fit again. Additionally, if a sailor puts her infant up for adoption, she becomes available for reassignment as soon as she has completed all adoption requirements.[285] The physical trauma of giving birth is identical regardless of whether or not the mother retains the child. Given these inconsistencies, it appears that the Navy's actual purpose for authorizing the twelve-month deferment is paternalistic and based on traditional gender roles to allow the new mother time to care for and bond with her infant.

Thus, while it is evident that the Navy put a great deal of consideration into balancing its mission with other considerations including the maternal desires of its female sailors and the work-life balance of all its service members, its policies still appear to be driven, albeit inadvertently, by outdated gender stereotypes. Parts III.B.2.-3., *infra*, will discuss in detail how aspects of the Navy's parental accommodations scheme, like the DoD's, is ultimately damaging to females' career advancement and ultimately females' retention in the Service.

b. Parental Accommodations in the Marine Corps

The Marine Corps operates as an independent Military Service, but is organized as part of the Department of the Navy.[286] As such, the Marine

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[282] *Id*. at para. 104.a.

[283] *Id*.

[284] *Id*. at paras. 201.d.(1), 205.b.

[285] *Id*. at para. 202.a.

[286] *See* U.S. Dep't of Navy, Marine Corps Manual (1980, incorporating through Change 2, dated 11 Jan., 1984) at para. 1000.1. The Marine Corps has been a part of the Department of the Navy since 1834. The head of the Marine Corps, known as the Commandant of the Marine Corps, must report to the Secretary of the Navy, the civilian head of the Department of the Navy. The Commandant of the Marine Corps, however, is not subordinate to any military members of the Department of the Navy. *See id*.

Corps is subject to the directions of the Secretary of the Navy.[287] The Secretary of the Navy extended his policy regarding maternity leave to both the Navy and the Marine Corps. Consequently, the discussion regarding that policy in Part III.B.1.a., *supra*, is also applicable to the Marine Corps.[288] However, the Secretary of the Navy did not extend his policies regarding paternity leave; adoption leave; or establishment of assignment, temporary duty, and deployment deferrals in excess of the DoD-minimum standard to the Marine Corps, thereby allowing the Marine Corps to tailor those programs to meet its mission needs and institutional values.

With regard to the paternity leave, while the Marine Corps mandated (pre-NDAA for Fiscal Year 2017) that commanders "shall authorize 10 consecutive days" of paternity leave,[289] its policy is clearly tilted in favor of commanders' prerogatives and minimizing mission impact over familial responsibilities. For example, when paternity leave may be taken, it "will be granted at the commander's discretion depending on the unit's mission and specific operational circumstances."[290] Commanders were to ensure that paternity leave is completed within twenty-five days after the birth of the child, but even then, only "absent any immediate or future operational requirements."[291] Additionally, the policy makes it clear that when a Marine is scheduled to deploy "immediately following the birth, commanders will have the discretion to postpone [paternity leave]."[292] While the NDAA for Fiscal Year 2017 increased paternity leave for Marines from ten to up to

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[287] *Id*.

[288] See NAVADMIN 182-15, *supra* note 257; ALNAV 053/15, *supra* note 257. Following Secretary Mabus' announcement of the eighteen-week maternity leave policy for the Department of the Navy, the Marine Corps issued implementing instructions which predominantly reiterated ALNAV 053/15. *See* U.S. Marine Corp Administrative Message 421/15, Marine Corps Maternity and Convalescent Leave Policy (Aug. 26, 2015) [hereinafter MARADMIN 421/15]. In the MARADMIN, the Marine Corp made clear that use of the additional 84 days of maternity leave "will not alter the requirements… for returning to Marine Corps standards and completing a Marine Corps Physical Fitness Test or Combat Fitness Test." *Id*. at para. 2.D. These standards include taking the physical fitness test "no later than six months after being returned to full duty" by a health care professional. U.S. Marine Corp Order 5000.12E, Marine Corps Policy Concerning Pregnancy and Parenthood para. 4.a.(6) (Dec. 8, 2004) [hereinafter MCO 5000.12E].

[289] U.S. Marine Corp Order Order 1050.3J, Regulations for Leave, Liberty, and Administrative Absence, Enclosure 1, Ch. 5, para. 1.c.(9)(a) (19 May, 2009) [hereinafter MCO 1050.3J].

[290] *Id*. at para. 1.c.(9)(b).

[291] *Id*.

[292] *Id*. at para. 1.c.(9)(c).

twenty-one days, it did not affect the discretion of commanders to deny or curtail leave.[293]

Another interesting aspect of the Marine Corps' paternity leave policy is its departure from the gender-neutral language employed by the DoD's policy.[294] The Marine's policy unambiguously stated four times in less than half a page that paternity leave applies to "male Marines," signaling that female Marines whose wives give birth will not be granted paternity leave by the Marine Corps.[295] While this policy predates Congress' repeal of its ban on lesbians serving openly in the Armed Forces,[296] the Marine Corp has maintained the gender-specific language for the ensuing 4.5 years. If the continuation of its gender-specific policy is intentional, it indicates that the Marine Corps may not be concerned with the work-life balance of certain female Marines, or that its institutional values may remain tied to traditional family structures and gender roles.

With regard to adoption leave, the Marine Corps more evenly balanced its mission with its service members' familial needs. Most notably, whereas the DoD merely stated that commanders shall grant "up to" twenty-one days of adoption leave, the Marine Corps also established that commanders shall grant "no less than 10 days" leave, thereby affording adopting parents a safeguard not provided for by the DoD.[297] Further, recognizing the "complex and rigorous process of adopting a child," the Marine Corps instructed commanders that they "should allow Marines the greatest latitude possible, while also taking into consideration associated risks related to mission accomplishment."[298] Additionally, the Marine Corps expressly authorized its service members to take adoption leave intermittently, "due to the arduous process involved when adopting."[299] The NDAA for Fiscal Year 2017, however, supersedes this flexibility option to take adoption leave intermittently.[300]

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[293] *See generally* NDAA 2017, *supra* note 79, § 521(j).

[294] *See* 10 U.S.C. § 701(j) (2012); DoDI 1327.06, *supra* note 73, para. 1.k.(5).

[295] *See* MCO 1050.3J, *supra* note 277, at paras. 1.c.(9)(a), (d).

[296] Don't Ask, Don't Tell Repeal Act of 2010, Pub. L. No. 111-321, 124 Stat. 3515 (2010) (repealing 10 U.S.C. § 654).

[297] MCO 1050.3J, *supra* note 289, at para. 1.c.(10)(b).

[298] *Id*.

[299] *Id*. at 1.c.(10)(d).

[300] NDAA 2017, *supra* note 79, §§ 521(i)(4), 521(j)(3).

While on the surface the Marine Corps' approach to adoption leave applied equally to male and female Marines, as required, and seemed to embrace fathers' growing role in their families, that may not be the case. It cannot be ignored that only 7.6% of Marines are female, which is the lowest of any of the Military Services.[301] As such, the policy was likely, and appears to have been, written predominantly with Marine fathers in mind. Namely, the Marine Corps' latitude with regard to adoption leave is for the purpose of "assist[ing] the parent(s) in relocating the adoptive child, formalizing legal requirements, establishing the child care program, and other tasks as required" after "the child is ready for placement" with the family.[302] Notably, none of the purposes for the Marine Corps embracing adoption leave pertain to bonding or personally caring for the child, which are traditionally seen as a mother's role. Rather, the reasons expressed for allowing adoption leave are to handle complicated administrative and logistical matters, which are traditionally seen as a father's role. As a result, the Marine Corps' adoption leave policy may provide further insight into the Service's gender values.

Finally, with regard to assignment, temporary duty, and deployment deferrals, the Marine Corps exempted female Marines from such duties for six months from the date of delivery of her child.[303] This six-month deferment policy represents a reduction in time from the Marine Corps' previous policy. Prior to June 2007, female Marines were afforded a twelve-month post-delivery deferment.[304] When the Marine Corps announced this change, a representative from the Military Policy Analyst, Manpower and Affairs explained that "Marine Corps policies are constantly reviewed to ensure their application to the force. During the review and staffing process it was felt a six-month deferment provides the best balance between ensuring the health of the mother and child and the requirements of a naval career."[305] If a

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[301] U.S. Marine Corps, The Marine Corps Demographics Update, (Dec. 2014) at 17, http://www.usmc-mccs.org/mccs/assets/File/Demographics%20Booklet%20Dec%202014.pdf. According to *The Marine Corps Demographics Update*, as of December 2014, the percentage of female members in each of the Military Services was as follows: Marine Corps – 7.6%, Army – 13.9%, Navy – 17.9%, and Air Force 18.9%. *Id*.

[302] *Id*. at 1.c.(10)(b), (c).

[303] MCO 5000.12E, *supra* note 288, at para. 8.d.

[304] U.S. Marine Corps, Marine Administrative Message 358/07, Change 2 to Marine Corps Policy Concerning Pregnancy and Parenthood) paras. 2-3 (12 June, 2007).

[305] A. L. Blanchard, *Marine Moms Back into the Fight Sooner*, Marine Corps News (June 26, 2007), http://www.lejeune.marines.mil/News/tabid/1099/Article/512080/.

health care provider deems it necessary for the health of either the mother or the child, commanders may extend the deferral period beyond six months.[306]

Consequently, it is evident that the Marine Corps places far greater value on limiting disruption to its mission than on the work-life balance and family needs of its service members. The potential impact of the Marine Corps' approach to long-term retention of women in the Armed Forces will be discussed in greater detail in Parts III.B.2-3., *infra*.

c. Parental Accommodations in the Army

The Army has been arguably the slowest of the Military Services to embrace making institutional changes to promote the recruiting and retention of women. As not only the largest of the Military Services,[307] but also the Service with the greatest number of females,[308] it is not surprising that the Army also received the most Congressional attention for its policies, or lack thereof.[309]

Nevertheless, shortly after the Navy implemented its now-superseded eighteen-week maternity leave policy, the Army announced, in August 2015, that it was reviewing its maternity leave policy.[310] At the time, the Army, like

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[306] *Id*.; MCO 5000.12E, *supra* note 288, para. 8.d.

[307] In January 2016, the Military Services had the following numbers of active duty personnel: Army – 478,450; Navy – 324,230; Air Force – 307,597; Marine Corps – 184,418. Def. Manpower Data Ctr, Department of Defense Active Duty Military Personnel by Rank/Grade (Jan. 31, 2016), https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp [hereinafter DMDC, DoD Active Duty Military Personnel].

[308] In January 2016, the Military Services had the following numbers of female active duty personnel: Army – 68,746; Navy – 59,706; Air Force – 58,944; Marine Corps – 14,323. Defense Manpower Data Center, Table of Active Duty Females by Rank/Grade (Jan. 2016), https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp.

[309] In 2008, *The Washington Post* exposed that the Army had the shortest postpartum deployment deferment of any of the services, sparking the attention of Senator Clare McCaskill. Tyson, *supra* note 158; Press Release, Sen. Claire McCaskill, *supra* note 159. More recently, in July 2015, Representative Niki Tsongas published an op-ed article in the ArmyTimes reproaching the Army for being the only Military Service without a breastfeeding policy. Niki Tsongas, *Commentary: An Environment Where Equality Is Not Yet Reality*, ArmyTimes (July 1, 2015), http://www.armytimes.com/story/opinion/2015/07/01/army-breastfeeding-policy-commentary-niki-tsongas/29125997/.

[310] Michelle Tan, *Army Reviewing Rules for Maternity, Paternity Leave*, ArmyTimes (Aug. 7, 2015), http://www.armytimes.com/story/military/careers/army/2015/08/07/army-reviewing-rules-maternity-paternity-leave/31285283/.

the other Services, was utilizing the six-week maternity leave standard.[311] The Army did little to expound on the DoD's policy and even provided an opportunity for commanders to provide its service women with less than forty-two days of postpartum maternity leave. Namely, commanders were directed that prior to approving maternity leave, they were to "[v]erify what, if any, convalescent leave [the] Soldier has taken while assigned or attached to [a] hospital, only that portion is authorized which, when added to hospital-approved leave, will not exceed…42 days if the reason is pregnancy and childbirth."[312] In other words, in certain circumstances, the Army directed commanders to deduct from the forty-two days of maternity leave those day(s) in which the mother was in the hospital giving birth, in clear contravention of the DoD's mandate that maternity leave commences following birth.

Nonetheless, the Army made no further statements about any planned changes to its policy prior to Secretary Carter announcing his DoD-wide twelve-week maternity leave policy, in January 2016. Following the DoD's new direction, the Army issued implementing instructions in which it properly stated that the "twelve-week period of maternity leave will start immediately following a birth event or the mother's release from hospitalization following a birth event, whichever is later."[313] Additionally, the guidance explained that it "does not limit convalescent leave to twelve weeks when a health care professional or medical authority has deemed that [additional convalescent leave] is warranted."[314] Consequently, since implementing the DoD's new maternity leave policy, the Army is affording greater credence to the postpartum health needs of its female soldiers.

With regard to paternity leave, the Army also announced, in August 2015, that it was reviewing its paternity leave policy.[315] The Army promulgated its paternity leave policy following the enactment of the NDAA for Fiscal Year 2009.[316] In its policy, the Army mandated that paternity leave "be

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311 *See* DoDI 1327.06, *supra* note 73, at para 1.k.(2).

312 U.S. Dep't of Army, Reg. 600-8-10, Leave and Passes para. 5-7.b.(2) (4 Aug., 2011) [hereinafter AR 600-8-10].

313 U.S. Dep't of Army Directive 2016-09, Maternity Leave Policy, para. 4 (1 Mar., 2016).

314 *Id*. at para. 7.

315 Tan, *supra* note 310.

316 U.S. Dep't of Army, All Army Activities 062/2009, Army Guidance for Paternity Leave Auth by Duncan Hunter Natl Def Authorization Act for Fiscal Year 2009 (Pub. L. 110-417) (10 Mar., 2009) [hereinafter ALARACT 062/2009].

taken consecutively and within 45 days after the birth of the child."[317] Soldiers who are deployed when their wives give birth "have 60 days after returning from deployment to utilize the 10 days of paternity leave."[318] The Army maintained the gender-neutral language of the DoD's guidance.[319] However, since promulgating its paternity leave policy over seven years ago, the Army has failed to incorporate it into its *Leave and Pass* regulation, which is the document most soldiers reference to ascertain what leave entitlements they do or do not have, despite having revised the regulation in 2011. As such, when soldiers consult what should be the governing regulation, they read that they are limited to ordinary, chargeable leave or to emergency leave, if their commander is provided documentation evidencing that childbirth has placed the soldier's spouse in "a severe life threatening situation."[320] While it is unclear whether the Army's seven-year omission of paternity leave in its governing regulation is the result of negligence or a conscious effort to hide paternity leave benefits from its soldiers, it may indicate the priority the Army places on its soldiers' needs to care for their newborn children and spouses who just endured the physical trauma of child birth.

Finally, with regard to assignment, temporary duty, and deployment deferrals, the Army acted promptly, in 2008, when *The Washington Post* and Senator McCaskill criticized it for having the longest deployments of any of the Military Services while maintaining a postpartum deployment deferral that tied for the shortest among the Services.[321] At the time, Army deployments typically lasted fifteen months and postpartum deployment deferrals were only for four months after the mother-soldier gave birth.[322] Within five months, the Army decreased the standard duration of deployments to twelve months for all soldiers and extended deployment and overseas assignment deferrals to six months for new biological mothers and one adopting parent per family.[323] Additionally, commanders were given the flexibility to extend

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[317] *Id*. at para. 5.

[318] *Id*.

[319] *See generally*, *id*.

[320] AR 600-8-10, *supra* note 312, para. 6-1.f.(1).

[321] *See* Tyson, *supra* note 158; Press Release, Sen. Claire McCaskill, *supra* note 159.

[322] *Id*.

[323] *New Army Parents to Get More Time at Home*, Army News Service (July 3, 2008), http://www.army.mil/article/10969/new-army-parents-to-get-more-time-at-home/; U.S. Dep't of Army Reg. 614-30, Overseas Service Table 3-1, para. 3-8.a.(5) (Mar. 30, 2010); U.S. Dep't of Army All Army Activities 171/2008, Notification of Pending Postpartum and Adoption Deferment Policy Change para. 1 (15 July, 2008) [hereinafter ALARACT 171/2008].

a new mother's deployment deferment past six months when they deemed it to be "operationally feasible."[324] When the Army announced these changes, it explained that it "is all part of emphasizing the importance of family, rebalancing the force,…[and increasing] stability for Soldiers and Families."[325] The Army representative also explained that the extended deferment period shows that the Army "recognize[s] that the period of time after birth is important for the bonding of the mother and child."[326] Thus, the representative's comments demonstrate that the Army's thinking, like that of the other Services, is in terms of traditional gender roles: that bonding with an infant is only an important factor for mothers.

Although the Army has made significant strides in recent years in accommodating work-life balance and the parental needs of its soldiers, its approach remains grounded in values that embrace not only traditional gender roles, but also outdated notions of the ideal worker, unencumbered by family considerations. The potential impact of the Army's parental accommodation policies on the long-term retention of women will be discussed further in Parts III.B.2-3., *infra*.

d. Parental Accommodations in the Air Force

The Air Force began seriously reevaluating and prioritizing its approach to diversity and Airmen's work-life balance when Deborah Lee James took office as its second female Secretary of the Air Force, in December 2013.[327] From the start of her tenure, Secretary James made clear that "recruiting, retaining and reshaping" the Air Force was one of her top priorities.[328] Her vision included "getting more diversity of thought…[from people] from diverse backgrounds" and "achieving a work-life balance."[329]

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[324] ALARACT 171/2008, *supra* note 323, para. 3-8.a.(5).

[325] *New Army Parents to Get More Time at Home*, *supra* note 323.

[326] *Id*.

[327] *See* Rich Lamance, *SecAF Outlines Top Priorities during 'State of AF' Address*, Air Force News Service (Feb. 24, 2014), http://www.af.mil/News/ArticleDisplay/tabid/223/Article/473409/secaf-outlines-top-priorities-during-state-of-af-address.aspx; Jon Harper, *Deborah Lee James Confirmed as Next Air Force Secretary*, Stars & Stripes (Dec. 13, 2013), http://www.stripes.com/news/deborah-lee-james-confirmed-as-next-air-force-secretary-1.257331.

[328] Lamance, *supra* note 327.

[329] *Id*.

Nevertheless, Secretary Mabus outmaneuvered her by announcing his Department of the Navy-wide maternity leave reform, in July 2015.[330] Within a week of Secretary Mabus' announcement, the Air Force stated that it was also looking into extending paid maternity leave for its airmen.[331] Subsequently, in December 2015, Secretary James guaranteed that "one way or another, the Air Force will triple its paid maternity leave benefit to eighteen weeks."[332] She stated that she "believe[d] in what the Navy did" and that "it was the right thing to do," so the Air Force will "do the same thing."[333] Secretary James believed the Pentagon would extend maternity leave to eighteen weeks for all members of the Armed Forces as part of its Force of the Future initiatives.[334] If the Pentagon did not extend maternity leave, however, Secretary James pledged to do it herself.[335] As Secretary James predicted, the Pentagon did institute a DoD-wide maternity leave policy, only it was for twelve weeks rather than the eighteen weeks she expected, foreclosing her promise of eighteen weeks of maternity leave for the Air Force.[336]

With regard to paternity leave, the Air Force promulgated its implementing instructions within two months of the President signing the NDAA for Fiscal Year 2009.[337] Additionally, when the Air Force announced the new policy, a representative from the Air Force Personnel Center advised that "[t]his is going to have a positive impact on our Air Force families. By giving our new dads more time to bond with mom and baby, we're building a stronger

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330 Meghann Myers, *Air Force Considering Longer Maternity Leave*, AirForceTimes (July 8, 2015), http://www.airforcetimes.com/story/military/2015/07/08/air-force-considering-longer-maternity-leave/29869643/.

331 *Id*.

332 Stephen Losey, *Air Force Secretary Pledges to Triple Maternity Leave for Airmen*, AirForceTimes (Dec. 10, 2015), http://www.airforcetimes.com/story/military/pentagon/2015/12/09/james-pledges-to-triple-maternity-leave-for-airmen/77045926/.

333 *Id*.

334 *Id*.

335 *Id*.

336 *AF Implements New DoD-Wide Changes to Maternity Leave*, Air Force News Service (Feb. 9, 2016), http://www.af.mil/News/ArticleDisplay/tabid/223/Article/652799/af-implements-new-dod-wide-changes-to-maternity-leave.aspx.

337 Danielle Hummert, *Highlights from the Military Personnel Section*, Malmstrom Air Force Base News (Jan. 7, 2009) (citing U.S. Dep't of Air force, Personnel Services Delivery Memorandum 08-63, Paternity Leave for Service Members (Force Management and Customer Service Elements; Functional Category: Leave) (Dec. 12, 2008) (unpublished)).

Air Force family."[338] Despite the representative's reference to "dads," the Air Force has maintained the policy in gender-neutral terms, consistent with the DoD's guidance.[339] Finally, within a year, the Air Force updated its *Military Leave Program* instruction to include the paternity leave policy.[340] The Air Force requires that paternity leave be taken consecutively and "no later than one year following the birth" of the child.[341]

Finally, with regard to assignment, temporary duty, and deployment deferrals, the Air Force has been steadily increasing the deferral period for the past eight years. First, in 2009, it announced its "commitment to taking care of its people" by increasing the deferment policy from four months to six months for both new birth mothers and adoptive parents.[342] Prior to that change, the Air Force was the only remaining Military Service that provided a deferment period of less than six months.[343] More recently, in 2015, the Air Force again extended its post-childbirth deferral from six months to twelve months.[344] The increase in the deferment period brings the Air Force's policy even with the Navy's as the longest deferment period.[345] In announcing the change, an Air Force official concluded that "the overall impact on manning and deployment levels…resulting from the increased deferment time will be negligible.…This should allow minimal disruption to mission planning/training for deployments and/or assignments and allow units to more seamlessly execute [their missions]."[346] However, the policy change did not include

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[338] *Congress Authorizes Paternity Leave*, Air Force Personnel Center (Dec. 15, 2008), http://www.afpc.af.mil/News/Article-Display/Article/423217/congress-authorizes-paternity-leave.

[339] *See* U.S. Dep't of Air Force, Instr. 36-3003, Military Leave Program Table 7, Rule 48 (Oct. 26, 2009) [hereinafter AFI 36-3003].

[340] *Id*. at 2.

[341] *Id*. at Table 7, Rule 48.

[342] *Assignment Deferment Extended for Births, Adoptions*, Air Force Personnel Center Public Affairs (Sept. 25, 2009), http://www.afpc.af.mil/news/story.asp?id=123169602.

[343] *Id*.

[344] U.S. Dep't of Air Force, Instr. 36-2110, Assignments Table 2.2, Line 1 (16 July, 2015, Incorporating Air Force Guidance Memorandum 2015-03) [hereinafter AFI 36-2110]; Stephen Losey, *New Air Force Rules Give New Moms Longer Breaks from Deployments*, AirForceTimes (July 8, 2015), http://www.airforcetimes.com/story/military/2015/07/08/new-moms-can-delay-deployment-after-giving-birth/29861997/.

[345] Losey, *supra* note 344.

[346] *Id*.

service members who adopt a child; therefore, the adoption deferment period remains at six months.[347]

In short, although the Air Force has lagged behind the Navy in implementing new diversity and other work-life balance policies, when the Air Force does implement such policies, it generally does so with a greater degree of success. Nonetheless, as with the Navy's policies, the sum total of the Air Force's parental accommodations schemes may prove to be a Pyrrhic victory for women in the Armed Forces.

2. Deployment Deferrals Epitomize the Problem of Differential Treatment between the Genders

As discussed in Part II.C., *supra*, postpartum deployment deferrals do not apply equally to male and female service members; they are a benefit provided exclusively to women.[348] Service women are exempt from deploying for at least six to twelve months after the birth of their children, depending on their Military Service. When the deferral period is added to the nine months of pregnancy when service women are deemed non-deployable,[349] they ultimately do not deploy for at least one-and-a-half to nearly two years. Meanwhile, male service members continue to deploy as needed.

Neither of the DoD regulations that provide for deployment deferrals articulate the Department's reasons either for granting postpartum deferrals to military mothers, or for the absence of any deferral benefit for military fathers after the birth of their children.[350] Neither regulation indicates that the postpartum deferral period is based on considerations for the mother's health.[351] In fact, given that waiver authority is exclusively in the hands of the mother, and not her physician, the regulations would permit a new mother to

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[347] AFI 36-2110, *supra* note 344, at Line 16.

[348] *See generally*, DoDI 1315.18, *supra* note 140; DoDI 1342.19, *supra* note 154.

[349] The author does not disagree with pregnant service members being deemed non-deployable. Apart from the debatable moral implications of deploying pregnant women, the physical demands of deployment may not be possible for many pregnant women to accomplish. Further, it would not be fiscally feasible to make obstetricians available to deployed pregnant service women.

[350] *See generally* DoDI 1315.18, *supra* note 140; DoDI 1342.19, *supra* note 154. Additionally, the flaws inherent in the rational voiced by the Military Services regarding their service-specific deferment policies was discussed in Part III.B.1, *supra*.

[351] Malcolm Wilkerson, *Missing the Men: Defining Female Servicemembers as Primary Caregivers in Deployment Deferral Policy*, 34 U. Haw. L. Rev. 161, 163 (2012).

waive the deferment at the expense of her own health.[352] Because the deployment deferral policy does not hinge on the actual postpartum health of the mother, its purpose appears to be paternalistic in nature and/or intended to allow those whom the DoD sees as primary caregivers, i.e., mothers, time to care for their infants.

Some may argue that deployment deferrals are only necessary for mothers because only mothers are capable of breastfeeding. This argument is flawed, however, as breastfeeding is only one component of parental caregiving. And, although it is medically preferable, it is not necessary. It is illogical to assume that the Pentagon would maintain a policy aimed at not interrupting breastfeeding by exempting *all* new mothers from deployment, even though nearly one in five mothers never begin breastfeeding and within six months half of those that began are no longer breastfeeding.[353] Rather, if this were the aim, the Pentagon would only defer deployment for those mothers who are breastfeeding, and only for so long as the mother continues breastfeeding.[354]

The unfortunate truth is that the DoD's and Military Services' policies pertaining to deferrals perpetuate the stereotype that mothers are supposed to be the primary caregivers in a family.[355] The DoD has historically demonstrated this belief. Until 1974, the military maintained a policy that authorized the involuntary discharge of any service woman who became pregnant or assumed custody of child.[356] The Pentagon continued to demonstrate its belief in this stereotype during the Gulf War in the early 1990s, which was prior to its current deployment deferral policy.[357] During the war, the DoD offered service women who had a child the option to not deploy.[358] This option was made available to all military mothers regardless of whether or not they were

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[352] *Id*. at 164.

[353] See discussion *supra* Part III.A.

[354] In the military, it is a crime, punishable by up to five years confinement and a dishonorable discharge, for any service member to knowingly make a false official statement. Consequently, it would be easy for commanders to ascertain whether a new mother is still breastfeeding: all they would have to do is ask. *See* Article 107, Uniform Code of Military Justice (UCMJ) (2012).

[355] Wilkerson, *supra* note 351, at 178.

[356] Root, *supra* note 218, at 145 (citing Bettie J. Morden, The Women's Army Corps 1945-1978, at 305 (1990)).

[357] Wilkerson, *supra* note 351, at 179.

[358] *Id*.

married.[359] By contrast, not one service man was extended the same offer, including single fathers.[360]

The current deployment deferral policy is little more than a modest improvement of the Gulf War program. Indeed, the stark difference in the current policy's treatment of service men and service women could still be construed to indicate the DoD's belief that men are its indispensable warfighters whose role as fathers must give way to their job as Airmen, Sailors, Soldiers, or Marines; whereas women's military responsibilities can readily take a back seat to her responsibilities as a care giver.[361] At a minimum, the policy suggests that women are temporarily expendable when it comes to deployments, whereas men are not.[362]

Scrutiny of the deployment deferral policy as it plays out between the sexes based on marital status also reveals the Pentagon's belief that women are to serve as the primary caregiver in any context.[363] First, regardless of their marital status, all military mothers always receive the postpartum deployment deferral.[364] For military fathers, the opposite is true; regardless of their marital status, fathers are denied any deployment deferral following the birth of their child.[365] Thus, if the father is in a dual-military marriage, the DoD expects the mother to stay at her home station with the newborn while the father deploys.[366] Regardless of whether the father may be better able to care for the infant, whether the military mother has a more mission-critical job, or whether the dual-military couple prefers that the mother deploy (similar to the choice made available to dual-military couples who adopt a child), the DoD makes the military mother available for childcare while forcing the military father to focus on his military duties.[367] Likewise, if the father is married to a civilian spouse, the Pentagon presumes that she will be available to care for their child.[368] Finally, if the father is a single father with sole custody of his child, the father is expected to execute his family care plan, which details

[359] *Id*.

[360] *Id*.

[361] *Id*.

[362] *Id*.

[363] *Id*.

[364] *Id*.

[365] *Id*.

[366] *Id*. at 179-80.

[367] *Id*. at 164.

[368] *Id*. at 179.

his plan for alternative long-term, full-time care for his child, and deploy.[369] Undeniably, the DoD's deferral policy demonstrates its lingering belief in and perpetuation of traditional gender roles.

Furthermore, our country has a history of enacting paternalistic policies aimed to protect women in the workforce that ultimately impair their career prospects. Prime examples of this are state labor laws that were pervasive from the 1940s through the 1970s, which required pregnant women to take leave from their jobs after childbirth. While these laws were paternalistically designed to protect the health of women, they had the effect of forcing women out of employment because the laws did not require employers to retain pregnant employees or to rehire them upon the expiration of the mandated leave period.[370] In another feat of misguided paternalism, the U.S. Congress attempted to rectify this problem by passing the PDA. While the PDA prohibited employers from firing women on the basis of pregnancy, it nonetheless provided a loophole for employers to terminate a mother's employment if she had to take any time off from work to care for her children. Thus, in attempting to provide paternalistic protection for working mothers, the PDA failed to see the larger picture and consequently failed to provide women job security in the long run.[371] In the same vein, the DoD's deployment deferral policy aims to protect women from having to choose between their military service and their children in the short term, but it missed the broader implications that such a substantially imbalanced policy can have on the career progression of service women.

The disparity in treatment between the sexes in deployment deferral policies has the potential to negatively impact the promotion rates of military mothers. A 2003 study into the effect of deployments on promotion to E-5 confirmed that participation in a deployment reduced the expected time to promotion.[372] The Army recently quantified the importance of deployment to promotion for its enlisted troops by awarding up to 60 points toward promotion for individuals who had spent time in a combat zone.[373] Similarly,

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[369] *Id*. at 180.

[370] *See* discussion *supra* Part II.D.1.

[371] *See Id*.

[372] RAND, Empirical Results from the Promotion/Reenlistment Model 66 (2003), https://www.rand.org/content/dam/rand/pubs/monograph_reports/MR1594/MR1594.ch5.pdf.

[373] Jim Tice, *New Rules for Enlisted Promotions*, ArmyTimes (Feb. 23, 2015), http://www.armytimes.com/story/military/careers/army/enlisted/2015/02/23/army-promotion-

the Navy requires its sailors to alternate between sea tours and shore tours.[374] The more tours a sailor serves at sea, the more his or her chances of promotion improve.[375] Thus, deployments and sea duty are important factors in the promotion of most military members, yet military mothers alone are missing opportunities to deploy because of parenthood.

Some may argue that any detrimental career impacts caused by a deployment deferral are accepted by the military mother because she chooses to not waive the deferment. That argument, however, is not realistic. For one, military members generally assume that when the military provides a benefit, it will not then penalize a member for utilizing that benefit. Accordingly, many service women may not realize that by not taking the extraordinary, affirmative step of waiving their deferral, they could be harming their career progression. Furthermore, when offered a means to attain some degree of work-life balance, particularly at such a crucial family juncture, few mothers would choose a long-duration separation from their infant.

The solution is not to eliminate deployments as a positive factor toward promotions. Deployments are quintessential to military service. Further, completion of a deployment provides insight into a service member's military character and potential to serve effectively in a rank that requires greater responsibility.[376] Nor is the solution to eliminate deployment deferrals for military mothers. Such action would undoubtedly have a disastrous effect on mid-career retention of women in the military. Rather, a balanced solution is needed: the DoD's and Military Services' deployment deferral policies should reflect the relative equality of men's and women's abilities to parent infants and to contribute, in person, to deployed missions. In creating a new deferment policy for biological parents, the DoD should cast aside its outmoded notions of gender roles and focus on the actual needs and best

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regulation-updated/23492405/. The enlisted promotion system is based on accumulating point. The more points a troop accumulates, the higher the likelihood that he or she will fall above the quota-cut-off line for the number of troops that can be promoted to a particular rank in a particular year. *Id.*

[374] Jontz, *supra* note 276.

[375] *Id*.

[376] *See*, *e.g.*, Memorandum from the Secretary, U.S. Air Force, subject: Secretary of the Air Force Memorandum of Instructions for CY15 Air Force Reserve (AFR) Line and NonLine Lieutenant Colonel Boards; and CY15 AFR Major Selective Continuation Board (undated) (unpublished, on file with author) (providing instructions to promotion board members on consideration of deployment information in the records of officers competing for promotion).

interests of both its mission and its military families.[377] If mission needs so require, the DoD could also consider a shared or shifting deferment benefit similar to the flexibility provided to dual-military couples who adopt a child.

By establishing a more gender-balanced deferment policy, military mothers will not be alone in missing deployment opportunities because of parenthood; that potential disadvantage to promotion selection will be shared by military fathers too. As a result, the records of military mothers will be more on par with those of their male counterparts, and they will not be unilaterally disadvantaged. If the DoD fails to implement a more gender-neutral postpartum deferment policy, it will likely continue to be ineffective at retaining women long term because they will unsatisfactorily progress in rank. Consequently, it's in the best interest of the Force of the Future to restructure the current deferment policy.

3. The DoD's Directive that Women Shall Not Be Disadvantaged because of Maternity Leave Is Insufficient

When the Pentagon provided its written directive to the Military Services regarding its new DoD-wide twelve-week maternity leave policy, it included a provision intended to protect military mothers from negative career impacts that could result from taking maternity leave.[378] The directive, however, will prove to be insufficient to shield military mothers from potential negative career impacts. The provision states, in its entirety:

> No member shall be disadvantaged in her career, including limitations in her assignments (except in the case where she voluntarily agrees to accept an assignment limitation), performance appraisals, or selection for professional military education or training, *solely* because she has taken maternity leave.[379] (emphasis added)

When the Secretaries of the Military Departments implemented the DoD's directive, they each issued written guidance to their Services, containing a protective provision that varied in the level it mirrored the original directive. The Secretary of the Navy re-promulgated the protective

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[377] Wilkerson, *supra* note 351, at 180.

[378] DTM 16-002, *supra* note 70, at 2, 4.

[379] *Id*. at 4.

provision verbatim for the Navy and Marine Corps.[380] The Secretary of the Army changed "No member shall" to "No Soldier will," but otherwise re-promulgated the provision verbatim.[381] The Secretary of the Air Force made the most substantial changes to the provision, stating, "Furthermore, no Airman shall be disadvantaged in her career, including limitations to assignments, evaluations, or selection for [professional military education] because she has taken Maternity Leave."[382]

A significant problem with the DoD's provision, and the provisions of all of the Military Services except the Air Force, is the use of the word "solely." By using the word "solely," they are sanctioning decisions to disadvantage a military mother for taking maternity leave, so long as the decision maker can articulate an additional factor for the decision to disadvantage her. Under this wording, it would be permissible, for example, for a commander to downgrade a military mother on her performance appraisal or not select her to attend training because she took maternity leave and did not have her boot laces properly tucked in on one occasion. Although this is an extreme example, it illustrates the wide latitude the current verbiage permits. By allowing maternity leave to be *a* factor, just not the *sole* factor, for disadvantaging a military mother's career, the provision essentially provides no protection against such inequitable decisions.

The Air Force's version corrects this verbiage problem, but nonetheless, it is unlikely that it will meaningfully protect military mothers from career disadvantages resulting from taking maternity leave. A seasoned military officer with more than 20 years of service and three separate experiences as a commanding officer explained the problem at the micro level:

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[380] U.S. Dep't of Navy, Naval Administration No. 046/16, Maternity and Convalescent Leave Policy Update para. 10 (25 Feb., 2016) [hereinafter NAVADMIN 046/16] (stating "No member shall be disadvantaged in her career, including limitations in her assignments (except in the case where she voluntarily agrees to accept an assignment limitation), performance appraisals, or selection for professional military education or training, solely because she has taken maternity leave.").

[381] U.S. Dep't of Army, Dir. 2016-09, Maternity Leave Policy para. 9 (1 Mar., 2016) ("No Soldier will be disadvantaged in her career, including limitations in her assignments (unless she voluntarily agrees to accept an assignment limitation), performance appraisals, or selection for professional military education or training, solely because she has taken maternity leave.").

[382] *AF Implements New DoD-Wide Changes to Maternity Leave*, *supra* note 336, at 1.

> While I would never consciously downgrade a female in my unit for taking maternity leave, I can't say that her absence wouldn't have an impact on some decisions. If I was having to decide between two star performers, which one I was going to stratify[383] as my number one troop that year on his or her [performance appraisal], it may be difficult to say that the person that was not contributing to the unit's success for twelve-plus weeks ultimately out-performed the one that was there all the time. I mean, if they really were equal performers when they were both on the job, how do I just ignore the extra three months of work that the one who didn't take maternity leave contributed to my unit?[384]

Every year, commanders, or their designated subordinates, must prepare performance appraisals on all of the service members under their command. Those appraisals, in turn, are an important criterion used to determine whether a service member should be competitively selected for promotion to the next higher rank. For officers, the process is substantially similar across the Military Departments: the officers' records, including their appraisals, are brought before a board, and that board selects a predetermined number of officers to be promoted, based on the quality of their records.[385] Therefore, the more and better stratifications an officer has on his or her performance appraisals, the more likely it is that he or she will be selected for promotion.

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[383] A stratification is a "[q]uantitative comparison of an individual standing among peers within a definable group and within a specific evaluators scope of authority (i.e., direct rating chain)." U.S. Dep't of Air Force, Instr. 36-2406, Officer and Enlisted Evaluation Systems at 340 (30 Nov., 2015) [hereinafter AFI 36-2406]. All of the Military Departments use stratifications, to varying degrees, in their officer and enlisted performance evaluations. *Id*. at para. 1.12.1.4.1.5, 1.12.1.6.1 (explaining stratification procedures for officers and enlisted evaluations, respectively); U.S. Dep't of Navy, Bureau of Naval Personnel Instruction 1610.10C, Navy Performance Evaluation System, at para. 10 (20 Apr., 2011) (authorizing "[n]umerical ranking among peers"); U.S. Dep't of Army Reg. 623-3, Evaluation Reporting System at para. 3-7.4.f.(d), 3-9.2.a. (Nov. 4, 2015) (explaining stratification procedures for enlisted and officer evaluations, respectively); U.S. Dep't of Army Pamphlet 623-3, Evaluation Reporting System at 104, 116 (Nov. 10, 2015) (stating that raters may assess service members' overall performance compared to others of the same rank).

[384] Interview with Anonymous, Commander, Dept. of Def. (Mar. 22, 2016).

[385] *See generally*, Stew Smith, *Military Commissioned Officer Promotions*, About.com, http://usmilitary.about.com/od/promotions/l/blofficerprom.htm (last updated Sept. 8, 2016).

For enlisted personnel, the promotion system varies from Service to Service, but is generally based on accumulating points through duty performance and testing; the more points an enlisted member accumulates, the better his or her chances of being selected for promotion. The quality of the service member's performance appraisals are an important factor in accumulating points.[386] Thus, like for officers, the more often an enlisted service member is stratified, and the higher those stratifications are, the more likely it is that he or she will be selected for promotion.

Consequently, if a military mother is not stratified or receives a lower stratification, not blatantly because she took maternity leave, but for the benign reason that she missed out on participating in major projects or events, or did not contribute to her unit's success in general for a quarter of a year, while all of her peers continued to contribute, it could have a very real impact on her chances to be selected for promotion. If, however, some of her male peers are taking paternity leave of similar duration during the same year, the potential disadvantage would be diluted. This disadvantage to military mothers would become even more diluted at promotion time if military fathers Service-wide are also taking longer-duration paternity leave. For the upcoming generation of women in the military, career progression is a high priority.[387] If these upcoming service women are dissatisfied with their career progression, or if they believe they will be passed over for promotion because of the quality of their appraisals, they will be more willing than their predecessors to leave the military to seek more rewarding employment elsewhere.[388]

The DoD's attempt to prevent career disadvantages resulting from maternity leave by instituting a one-sentence directive to that effect is woefully insufficient. If the Pentagon actually wants women, as a class, to not be disadvantaged by maternity leave, it needs to even the playing field between maternity and paternity leave, including by pushing Congress to allow military fathers to take substantially more paternity leave, not merely the fourteen days it requested or the twenty-one days it received. Only when

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386 *See generally*, Stephen Losey, *New EPR System: Leaders Answer Your Questions*, AirForceTimes (Jan. 12, 2015), http://www.airforcetimes.com/story/military/careers/air-force/2015/01/12/new-epr-system/21460541/; Tice, *supra* note 373;

387 Pricewaterhouse Coopers, *Millennials at Work: Reshaping the Workforce*, 4 (2011), https://www.pwc.com/gx/en/managing-tomorrows-people/future-of-work/assets/reshaping-the-workplace.pdf (last visited Mar. 29, 2016).

388 *Id*.

military fathers are also absent from the workplace for durations significantly closer to those of military mothers, will military mothers not be alone in potentially suffering career disadvantages for taking parental leave. When military mothers are not unique in this disadvantage, it will not only help them at the micro level by leveling the comparisons unit commanders make between the contributions of individual members to their units, but it will also help at the macro level by making the records of military mothers more on par with those of military fathers.

C. Thinking Outside the Five-Sided Box

Structuring a new parental accommodations plan that transcends the traditional notions of gender roles and paternalism to which the U.S. military has clung will undoubtedly be challenging, but it is imperative. Secretary Carter was correct when he recognized that upcoming generations have different priorities and motivations than those of the generation currently leading the DoD.[389] He was also on point when he acknowledged the need for the military to "strengthen the support [it] provide[s] to military families to improve their quality of life" and to "modernize [its] workplace and workforce, to retain and attract the top talent."[390] Moreover, Secretary Carter understood that the DoD needs to "think outside this five-sided box and be open to…best practices, ideas, and technologies."[391] Nonetheless, in attempting to modernize and strengthen its support to military families, the Pentagon did so within a framework of gender stereotypes that do not comport with the ideals of the upcoming generation.

Every person currently in the Armed Forces who is under thirty-five years of age is part of the Millennial generation.[392] That means Millennials already constitute nearly 80% of the active duty military.[393] The Millennial

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[389] *See* Carter, Ceremonial Swearing-In, *supra* note 39 (stating that "every generation is different" and that the DoD must find a way to "attract the finest among them").

[390] Carter, Force of the Future, *supra* note 2.

[391] Carter, Ceremonial Swearing-In, *supra* note 39. The "five-sided box" refers to the Pentagon.

[392] There is not a universally accepted delineation for what birth years constitute the Millennial generation. A commonly cited delineation, however, is for those individuals born between 1982 and 2003. *See*, *e.g.*, Sarah Keeling, *Advising the Millennial Generation*, NACADA J., 30, 31 (2003) (citing William Strauss & Neil Howe, *Generations: The History of America's Future, 1584 to 2069*, New York: Quill/William/ Morrow (1991)).

[393] U.S. Dep't. of Def., 2014 Demographics Profile, *supra* note 28, at 35.

generation characteristically places greater emphasis on their personal needs than on those of their employer.[394] Work-life balance is a significant priority for both males and females of this generation.[395] Millennial fathers, like their female counterparts, are increasingly expecting to have flexibility in their employment that allows them to play a key role in raising their children.[396] Consequently, improving workplace flexibility is a meaningful way to boost recruiting and improve retention of Millennials.[397]

Since at least 2002, the Pentagon has been aware that the "lifestyle values of American workers from which the [D]epartment draws are changing," including a desire to spend more time with their families.[398] In light of these changing values, the GAO recommended to the DoD that offering extended time off to new military parents, both mothers and fathers, would help the Department retain personnel.[399] Despite this recommendation, the DoD opted to focus exclusively on extending benefits to new mothers.[400] However, the DoD needs to be concerned with retaining all its top talent, not just its top female talent.

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[394] Pricewaterhouse Coopers, *Millennials at Work*, *supra* note 387, at 3.

[395] *Id*. at 8. Karin & Onachila, *The Military's Workplace Flexibility Framework*, *supra* note 29, at 183 (citing Ken Barrett, *Human Capital Management for Defense*, at 10-12 (presented Feb. 15, 2011), http://www.public.navy.mil/bupersnpc/support/tflw/Documents/Life%20Work% 20Integration.ppt.).

[396] Dana Wilkie, *Millennial Dads Demand Flexible Hours, Robust Benefits to Help Raise Kids*, Soc'y for Human Res. Mgmt. (July 10, 2015), https://www.shrm.org/hrdisciplines/diversity/articles/pages/millennial-parents.aspx.

[397] *Id*. (*citing* Marcie Pitt-Catsouphes, *et al.*, *Workplace Flexibility: Findings from the Age & Generations Study* (2009), http://www.bc.edu/content/dam/files/research_sites/agingandwork/pdf/publications/IB19_WorkFlex.pdf; The Lattice Group, http://thelatticegroup.org/about-5/about-the-lattice-group (non-profit that "conducts research and sparks dialogue about work-life issues from a Gen Y perspective")).

[398] Government Accountability Office, Report to the Subcommittee on Personnel, Committee on Armed Services, U.S. Senate: Active Duty Benefits Reflect Changing Demographics, but Opportunities Exist to Improve, Sept. 2002, at 2, 10 [hereinafter GAO, Benefits] (referencing Office of the Deputy Assistant Sec'y of Def. for Military & Fam. Pol'y, *A New Social Compact: A Reciprocal Partnership Between the Department of Defense, Service Members and Families* (May 2002). In response to a Presidential directive that the Secretary of Defense review quality-of-life issues for military personnel and provide recommendations for improvements, the DoD published its *New Social Compact*, which was a "strategic human capital plan addressing quality-of-life issues and benefits." *Id*. at 2.

[399] *Id*. at 10.

[400] *Id*. at 18.

The military is unique in its hierarchy; it is a closed system. The military has no option to "lateral in" personnel from the civilian sector mid-career to fill its higher ranks.[401] Virtually every member joins the military as a low-ranking officer or enlisted member.[402] This means that the person who will be the Chairman of the Joint Chiefs of Staff in 2037 is already serving in the military.[403] Thus, the quality of the upper ranks of the military is entirely dependent upon the quality of individuals it is able to recruit and retain. If top performers choose to separate from military service, there is no other choice than to promote less capable performers to fill vacancies in the higher ranks. Consequently, it is imperative that the Pentagon infuse its thinking with new, innovative, and flexible approaches that appeal to Millennials, including its approach to parental accommodations, or it risks losing its top-tier mothers and fathers from that generation.

Two of the most frequently cited factors that service members consider when deciding whether to stay in the military are their spouses' support of their continued military careers and the service members' own perception of their work-life balance.[404] The disharmony that results from tension between work and family responsibilities causes many top performers, both men and women, to choose to leave the military.[405] These factors do not just affect the retention of military mothers, as the Pentagon seems to think. Rather, these factors also influence the retention decisions of the 57% of male active duty service members who have families. This career-impacting influences of

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[401] Campbell, *supra* note 12.

[402] *Id*.

[403] Shelly M. Wadsworth & Kenona Southwell, *Military Families: Extreme Work and Extreme "Work-Family"*, 638 Annals Am. Acad. Pol. & Soc. Sci. 163, 169 (2011). The Chairman of the Joint Chiefs of Staff is the highest-ranking officer across all the Military Services.

[404] Karin & Onachila, *supra* note 29, at 190 (citing Shelley MacDermid Wadsworth, *Workplace Flexibility 2010 Briefing: Supporting our Nation's Military Families: The Role of Workplace Flexibility* (Dec. 18, 2008), http://www.law.georgetown.edu/webcast/eventDetail.cfm?eventID=690).

[405] *Id*. (citing Stephen Miller, *Thought Leaders Call Flexible Workplaces "Strategic Imperative,"* Soc'y for Human Res. Mgmt. (Feb. 14, 2011), http://www.weknownext.com/workplace/thought-leaders-call-flexible-workplaces-strategic-imperative). *See also* Derek Stewart, Government Accountability Office, Testimony before the Subcommittee on Personnel, Armed Services Committee, U.S. Senate: Active Duty Benefits Reflect Changing Demographics, but Continued Focus Is Needed (Apr. 11, 2002) at 5, http://www.gao.gov/assets/110/109246.html (stating that "[a] significant body of research by the military services shows that family satisfaction with military life can significantly influence a servicemember's decision to stay in the military or leave.").

family satisfaction and work-life balance will continue to increase as more Millennials enter the military and start families.[406] Implementing a more balanced parental accommodations scheme is, therefore, essential to the military retaining its top talent across gender lines.

The United States military has been an all-volunteer force for over 40 years.[407] During that time, the military has had to change its mindset and adopt new policies and programs in order to successfully compete against private-sector employers to recruit and retain high-quality personnel.[408] The military has already demonstrated its ability to adapt to enlightened social changes such as racial desegregation and women in combat.[409] Now it must adapt to changing gender roles and the expectations of greater work-life balance of the upcoming generations.

1. The Pentagon Must Develop a Fair and Flexible Strategic Plan for Parental Accommodations

The DoD offers an array of parental accommodations in its current benefits scheme. However, these accommodations were developed piecemeal, creating an end result that heaps accommodations on military mothers, while scarcely acknowledging male service members' responsibilities as fathers.[410] The Pentagon needs to strategically reevaluate the entire scheme of parental accommodations into a gender-balanced and flexible plan, otherwise it risks ultimately disadvantaging military mothers and disenfranchising military fathers.[411]

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406 U.S. Dep't. of Def., 2014 Demographics Profile, *supra* note 28, at 45.

407 RAND, *I Want You! The Evolution of the All-Volunteer Force*, 2 (2006), http://www.rand.org/content/dam/rand/pubs/monographs/2007/RAND_MG265.pdf.

408 Wadsworth & Southwell, *supra* note 403, at 169. The Armed Forces already suffers a mounting recruiting disadvantage in that, as of 2016, only approximately 25% of America's seventeen- to twenty-four-year olds are even eligible to join the military: obesity being one of the main disqualifying factors. Robert Longley, *Up to 75 Percent of US Youth Ineligible for Military Service*, About News (Feb. 17, 2016), http://usgovinfo.about.com/od/usmilitary/a/unabletoserve.htm.

409 *See*, *e.g.*, *Desegregation of the Armed Forces*, Harry S. Truman Library & Museum, http://www.trumanlibrary.org/whistlestop/study_collections/desegregation/large/index.php?action=bg (last visited Mar. 10, 2017); Carter, Women-in-Service Review, *supra* note 1.

410 *See* Stewart, *supra* note 405, at 14 (broadly discussing DoD benefits).

411 *See id*.

The following table summarizes the previously-discussed parental accommodations that are currently available to military personnel:[412]

Service Member	Parental Leave	Deferral
Biological Mother, married or unmarried	12 weeks*	Minimum 4 months (authorized 6-12 months per Service policies)
Biological Father, married	21 days*	_____
Biological Father, unmarried	_____*	_____
Adoptive Mother/Father dual-military or unmarried	6 weeks–primary caregiver 21 days–secondary caregiver	4 months (available to only one parent in a dual-military couple)
Adoptive Mother/Father married to a civilian	6 weeks–primary caregiver 21 days–secondary caregiver	_____
* May change depending upon each Military Department's definition of "primary caregiver" and "secondary caregiver."		

The inequality and inconsistences of the current parental accommodations scheme are readily apparent when it is viewed en masse. The DoD has repeatedly verbalized its recognition of the value of supporting military families, yet its parental accommodations scheme indicates that its concept of "family" is significantly behind the times.[413] The DoD needs to consolidate its parental accommodations into a strategic plan that reflects the relative equality of men and women to shoulder parental responsibilities.

While the DoD's decision to extend maternity leave from six to twelve weeks was, standing on its own, a step in the right direction to improve the recruiting and retention of women, when viewed in concert with the deferral policy, it stands to significantly disadvantage women in their career progression. The current parental accommodations scheme is also likely to disenfranchise male service members who want to participate in the care of their newborns. Congress recognized in its findings for the FMLA that "it is important for the development of children and the family unit that fathers and mothers be able to participate in early childrearing."[414] Nonetheless, Congress, with the apparent endorsement of the Pentagon, has made military parenting a woman's prerogative. The Pentagon needs to embrace the modern social construct that parenting is a gender-neutral commitment, and push Congress

[412] *See* discussion *supra* Parts II.A.1-3, II.B, and III.B.1.a.

[413] Wilkerson, *supra* note 351, at 166.

[414] 29 U.S.C. § 2601(a)(2) (2012).

to extend to military fathers its prior recognition of the equally important role of fathers in childrearing.

The DoD has in its own power the ability to correct the stark imbalance in deferral policies between military fathers and mothers. The Pentagon has given no explanation as to why military mothers are entitled to deferrals, but biological fathers are not. The only insight comes from the Military Services. The Navy claims that deferrals are granted to women to allow them "time to regain [their] physical strength" following childbirth.[415] This assertion, however is inconsistent with the Navy's policy requiring new mothers to pass a physical fitness test six months before the expiration of the deferral period, and by the lack of a deferment for mothers who decide not to retain custody of their children.[416] The Army, on the other hand, clearly expressed that the unequal deferral policy is based on traditional gender roles when it announced that the policy "recognize[s] that the period of time after birth is important for the bonding of the mother and child."[417] No mention was made regarding the importance of bonding between father and child, despite the finding of numerous studies that "at every state of child development from infancy through adolescence, fathers' involvement has significant positive effects on their children."[418]

As the Military Services are deferring military mothers' deployment eligibility for six to twelve months postpartum, it may not be feasible to simply offer an identical deferral to military fathers. Consequently, to rectify the imbalance, the DoD may need to completely reengineer its deferral policy. The manpower studies and operational requirements analysis that would most likely be necessary to construct a more gender-neutral deferral policy are beyond the scope of this article. Nonetheless, the author suggests that the Pentagon may need to cap the authorized duration of deferrals for service women at a length less than what some of the services are currently granting in order to accommodate deferrals for biological fathers. Further, if the Pentagon is concerned with the promotion of breastfeeding, discussed in Part III.A, *supra*, it could structure its policy to grant continuing deferment for mothers, so long as breastfeeding is the primary source of nutrition for their infant. Regardless of the precise substance of the final deferral policy,

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[415] OPNAVIST 6000.1C, *supra* note 270, at para. 104.a.

[416] *See* discussion *supra* Part III.B.1.a.

[417] *New Army Parents to Get More Time at Home*, *supra* note 323.

[418] *See generally*, *id*. Martin H. Malin, *Fathers and Parental Leave Revisited*, 19 N. Ill. U. L. Rev. 25, 28 (1998).

the crux of the solution is in lessening the current inequity. By providing a substantially similar deferral period for both men and women, the Pentagon will help to rectify the potential career disadvantages military mothers face under the current policy, and enhance the Department's ability to recruit and retain top performers.[419]

Unlike deferrals, alleviating the gender imbalance of the parental leave policies is not entirely within the control of the DoD.[420] Now that maternity leave was included in the NDAA for Fiscal Year 2017, the DoD it must seek Congressional authorization for any change of any parental leave policy.[421] Despite the more onerous process, if the Pentagon is serious about the career advancement of women and the recruiting and retention of top-talent Millennials, it must make a concerted effort to make the policies more equitable. Again, the manpower and operational studies necessary to craft a strategically viable parental leave policy for the DoD is beyond the scope of this article. Nonetheless, the following discussion offers some thoughts for consideration in deliberating a new parental accommodations plan.

The Pentagon has expressed reluctance to comparing the DoD to civilian corporations such as Google and Apple whose employee flexibility benefits, including parental leave, have made them among the best U.S companies at recruiting and retaining top-talented Millennials.[422] However, the Pentagon could look to other sources for successful models of parental accommodations plans. For example, the U.S. Coast Guard, which falls under the Department of Transportation in peacetime but is subject to the authority of the Navy during wartime, has offered extended time off for its new mothers and fathers since the early 1990s.[423] Under the Coast Guard's program, service men and women can separate from the service for up to two years to care for their newborn children.[424] During that time, the service members do not receive any active duty pay or benefits, but they may transition to the Coast Guard Reserve and receive all the pay and benefits associated with that part-time service.[425] Subsequently, upon completion of the separation

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[419] *See* discussion *supra* Part III.B.2.

[420] *See* discussion *supra* Part II.B.

[421] *Id*.

[422] Carter, Force of the Future, *supra* note 2; Pricewaterhouse Coopers, *supra* note 387, at 3.

[423] GAO, Benefits, *supra* note 398, at 11.

[424] *Id*.

[425] *Id*.

period, the service members are guaranteed reinstatement to the same rank they held before they left.[426] Of the service members who have taken part in the program, 55% have been women and 45% men.[427]

The Pentagon could also look outside the United States for successful examples of military parental leave programs. In the Canadian Armed Forces, for example, both service men and women are authorized extended leave to care for their new children. Service women initially receive maternity leave for up to eight weeks prior to birth and eighteen weeks postpartum.[428] Additionally, both men and women are authorized up to thirty-seven weeks of parental leave for the birth or adoption of a child.[429] During these leave periods, the service members receive approximately 75% of their monthly pay.[430] The Canadian Armed Forces expressly states that its policies are intended to support "gender equality by encouraging both parents to share in family responsibilities" and "employment equity by encouraging the recruitment and retention of women."[431]

These two examples illustrate that similarly situated entities are able to accommodate extended parental leave programs that are considerably more balanced than the DoD's current maternity and paternity leave policies. They also illustrate how flexibility in other conditions of employment, such as pay or active versus reserve status, can expand the DoD's options when constructing a cohesive parental leave plan. In addition to these examples, there are numerous workplace flexibility tools that the DoD could utilize to create a

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[426] *Id*.

[427] *Id*.

[428] Gov't of Canada, National Defence and the Canadian Armed Forces, *Queen's Regulations and Orders, Vol. I, Ch. 16, Leave* at para. 16.26(4), http://www.forces.gc.ca/en/about-policies-standards-queens-regulations-orders-vol-01/ch-16.page#cha-016-26 (last visited Apr. 15, 2016).

[429] *Id*. at para. 16.27(3), (4).

[430] Gov't of Canada, National Defence and the Canadian Armed Forces, *Compensation and Benefits Instruction, Chapter 205, Allowances for Officers and Non-Commissioned Members* at para. 205.461(6), http://www.forces.gc.ca/en/about-policies-standards-benefits/toc-ch-205-officer-ncm-allowance-rates.page (last visited Apr. 15, 2016); Gov't of Canada, *Maternity and Parental Benefits: How Much Could You Receive*, http://www.esdc.gc.ca/en/ei/maternity_parental/benefit_amount.page.

[431] Gov't of Canada, National Defence and the Canadian Armed Forces, *Def. Admin. Orders and Directives 5001-2, Maternity and Parental Benefits* at para. 2.3, http://www.forces.gc.ca/en/about-policies-standards-defence-admin-orders-directives-5000/5001-2.page#int (last visited Apr. 15, 2016).

parental leave plan that both satisfies the needs of parents for work-life balance, and the needs of the Armed Forces to maintain operational readiness.

The U.S. Navy has been experimenting with and implementing workplace flexibility tools for its active duty members, outside the context of parental leave, since 2007.[432] Understanding that most manual-labor jobs also include administrative responsibilities, the Navy first instituted teleworking opportunities for its sailors while they are serving ashore.[433] The Navy has also authorized flex hours for its Judge Advocate General's Corps, which sets core duty hours during which personnel must be at work, but otherwise allows service members to adjust the start and end times of their work day while maintaining a minimum of 40 hours per week.[434]

Although neither the Navy nor the DoD at large have explored using flexible work arrangements as part of a comprehensive parental accommodations plan, such an undertaking could prove to be the key to drafting a viable and equitable plan. The DoD has already published guidance pertaining to teleworking, which encourages supervisors and commanders to "allow maximum flexibility for…Service members to telework to the extent that mission readiness or accomplishment is not compromised."[435] Thus, the authority is already in place to apply teleworking to parental accommodations. Likewise, the Pentagon could explore the possibility of incorporating flex time or medically-related shortened duty days into its parental leave plan for new mothers.

As an example, the DoD could explore curtailing maternity leave to nine weeks and then providing new mothers with three weeks of telework-

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[432] *See* Laura Stegherr, *Navy to Receive National Award for Work-Life Balance Programs* (May 19, 2010), http://www.norfolknavyflagship.com/news/top_stories/navy-to-receive-national-award-for-work-life-balance-programs/article_f6aa3546-fafc-5d63-b632-7f7c2bb5bb9c.html (describing the Navy's Task Force Life-Work program).

[433] *Navy Dives Deep into Telework*, The Mobile Worker, http://www.mobileworkexchange.com/mobileworker/view/4063 (last visited Apr. 15, 2016). Telework is defined as "[a] voluntary work arrangement where an employee or Service member performs assigned official duties and other authorized activities during any part of regular, paid hours at an approved alternative worksite (e.g., home, telework center) on a regular and recurring or a situational basis." U.S. Dep't. of Def. Instr. 1035.01, Telework Policy at 25 (4 Apr. 2012) [hereinafter DoDI 1035.01].

[434] U.S. Dep't of Navy, Judge Advocate Gen./Commander Navy Legal Serv. Command Instr. 12620, Flex Hour Program (2 Dec., 2010) [hereinafter JAG/COMNAVLEGSVCCOM Instruction 12620].

[435] DoDI 1035.01, *supra* note 433, at para. 2.e.

ing or half duty days. Such an arrangement would allow military mothers undisturbed time at home to physically recuperate, breastfeed, and bond with their newborns, but also allows them to resume contributing to their unit sooner. It would also allow for an easier adjustment back to the work environment. Similarly, to help bridge the gap between the length of maternity and paternity leave policies, the DoD could explore teleworking options for military fathers or Congressional authorization for a period of half duty days. The point being, the military can use workplace flexibility tools to expand its options for accomplishing a more balanced parental accommodations plan that meets the needs of its service members and while supporting military operations.[436]

Structuring a new parental accommodations plan will be challenging. In engineering a new plan, it will be crucial that the Pentagon change its thought process to embrace workplace flexibility and greater equality between military mothers and fathers. A balanced parental accommodations plan that neither disadvantages women's career advancement nor disenfranchises male service members will likely prove essential to the DoD's future recruiting and retention success.

2. An Existing but Underutilized Parental Accommodations Equalizer: The Career Intermission Pilot Program

For the past seven years, the Pentagon has had at its disposal a program that could be utilized to help level the parental accommodations gap between male and female service members. The Career Intermission Pilot Program (CIPP) provides flexibility for military members, as well as for leaders working to ensure mission success. The program also resolves the disadvantages women are subject to under the lopsided parental leave and deferral policies. This part will explore the development of the CIPP and how the DoD can better utilize the program as part of its overall parental accommodations scheme.

a. What is the CIPP?

With the goal of recruiting and retaining more women in the Military Services,[437] in March 2008, the Department of Defense requested both the

[436] Karin & Onachila, *supra* note 29, at 155.

[437] Telephone interview with Lieutenant Colonel (Lt Col) Tiaa E. Henderson, Assistant Director, Force Management Policy & Research Studies, Office of the Secretary of

Senate and the House of Representatives to include in the NDAA for Fiscal Year 2009, authorization for a pilot program to allow a limited number of military personnel to take sabbaticals from active duty service.[438] The DoD anticipated the program would "encourage retention by providing an opportunity for Service members to focus on personal and professional goals and responsibilities for a temporary period followed by a return to full operational readiness."[439]

Congress acquiesced to the request and included in the NDAA for Fiscal Year 2009 for the DoD to launch the CIPP for a three-year trial period.[440] Under the CIPP, twenty officers and twenty enlisted service members per Military Service (i.e., 160 members DoD-wide) per year may leave active duty service "to meet personal or professional needs" for a period of up to three years.[441] Although the Pentagon originally conceptualized the program as a tool to recruit and retain more women in the Armed Forces, neither the legislation nor the DoD's implementing instruction constrains the reasons for which a service member may participate in the CIPP.[442] Thus, male or female service members may apply to take CIPP sabbaticals for any number of reasons such as to pursue educational goals, spend time with terminally ill parents, simply to take a break from military service, or, as is pertinent to this article, to care for their young children.

Defense (Mar. 17, 2016) [hereinafter Henderson, Telephone Interview]; Hope Seck*, Few Taker in First Year of Marine Career Sabbatical Program*, Military Times (July 24, 2014), http://www.militarytimes.com/story/news/2014/07/23/few-takers-in-first-year-of-marine-career-sabbatical-program/13036617/.

[438] *See*, U.S. Dep't of Def., Letter from Daniel J. Dell'Orto, Acting General Counsel of the Dep't. of Def. to Congress (Mar. 14, 2008), 1-2, 25-30, http://www.dod.mil/dodgc/olc/docs/14March2008Package.pdf.

[439] *Id*. at 29.

[440] NDAA 2009, *supra* note 115, § 533.

[441] *Id*. at §§ 533(a)(1), 533(c).

[442] Henderson, Telephone Interview, *supra* note 437; Seck*, supra* note 437. *See also* NDAA 2009, *supra* note 115; Memorandum from Under Secretary of Defense (Personnel & Readiness) on Pilot Programs on Career Flexibility to Enhance Retention of Service Members (Feb. 4, 2009), *cancelled by* U.S. Dept. of Def. Directive-Type Memorandum 15-005, Pilot Programs on Career Flexibility to Enhance Retention of Service Members (8 Sept., 2015), http://www.dtic.mil/whs/directives/corres/pdf/DTM15005.pdf. *See also* Government Accountability Office, Report to Congressional Committees: DoD Should Develop a Plan to Evaluate the Effectiveness of Its Career Intermission Pilot Program (Oct. 2015), http://gao.gov/assets/680/673360.pdf [hereinafter GAO, CIPP].

While on sabbatical, service members may be required to complete any correspondence training necessary for them to retain their proficiency in military skills, professional qualifications, and physical readiness.[443] Additionally, during sabbatical, service members receive two-thirtieths of their basic pay, which equates to two days pay per month. Service members and their dependents also retain medical and dental coverage while participating in the CIPP.[444] For each month a service member spends on sabbatical, he or she is obligated to serve two months upon return to active duty.[445] Finally, at any time, the Secretary of the Military Service to which a member belongs, may terminate the member's participation in the CIPP and recall him or her to active duty service.[446]

Although only the Navy participated in the CIPP during its inaugural period from 2009 through 2012, Congress authorized a continuation of the program through 2015 in the NDAA for Fiscal Year 2012, and subsequently through 2019 in the NDAA for Fiscal Year 2015.[447] However, in 2014, due to a continued lack or participation by the Army and Air Force, the Senate directed the GAO to compile a report addressing the implementation efforts and impacts of the CIPP.[448] By the time the GAO had completed its report in late 2015, all four Military Services were participating in the program.[449] The following table depicts the amount of participation in the CIPP within each Military Service through July 2015:[450]

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[443] NDAA 2009, *supra* note 115, at § 533(e)(2).

[444] *Id*. at § 533(j).

[445] *Id*. at § 533(e)(3).

[446] *Id*. at § 533(g).

[447] GAO, CIPP, *supra* note 442; National Defense Authorization Act for Fiscal Year 2012, Pub. L. 112-81, § 531(a)(1) (Dec. 31, 2011); Carl Levin & Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. 113-291, § 522(a)(2) (2014).

[448] S. Rep. No. 113-211 at 19 (2014).

[449] GAO, CIPP, *supra* note 442. The Marine Corps instituted the CIPP in 2013, and the Army and Air Force began participation in 2014. *Id*. at 8.

[450] *Id*. at App. I.

Total Number of CIPP Participants Approved by Each Military Service as of July 2015					
Military Service	Number of Applicants	Applicants Approved	Actual Participants (Male)	Actual Participants (Female)	Total Actual Participants
Navy	130	111	38	55	93
Air Force	46	35	15	15	30
Army	10	9	2	4	6
Marine Corps	7	6	3	1	4
TOTALS	193	161	58	75	133

The GAO observed that even with all of the Military Services participating in the CIPP, the number of participating service members remained significantly below the statutorily authorized limit of 160 service members per year, where maximum participation was reached in 2014 with a mere seventy-six participants DoD-wide.[451] Military Service officials believed several factors may have adversely affected participation in the program by service members.[452] First, the authorizing statute did not permit service members to apply for CIPP during their initial term of service, which typically covers a service member's first two to five years in the Armed Forces.[453] Officials also believed many otherwise interested service members may have been hesitant to apply to the program due to the low caps the statute sets for the number of participants allowed per Military Service each year.[454] Second, a perception exists among service members, including those in leadership positions, that participation in the CIPP could have a negative effect on career advancement.[455] Third, officials recognize that many service members may not be able to participate in the program due to financial constraints.[456]

Congress responded to some of these concerns in the NDAA for Fiscal Year 2016 by repealing both the eligibility limitation for service members in their initial term of service and the cap on the number of participants the Military Services can approve each year.[457] As a result of these changes, the

[451] *Id*. at 7, Fig. 1.

[452] *Id*. at 8.

[453] *Id*. at 8-9.

[454] *Id*. at 9.

[455] *Id*. at 10.

[456] *Id*. at 11. Service officials also reported that the selection processes implemented by the Military Services, as well as service-specific rules prohibiting breaks in service for certain career fields may also limit the number of applicants. *Id*. at 9-10.

[457] National Defense Authorization Act for Fiscal Year 2016, Pub. L. 114-92, § 523(b),

CIPP has the potential to become a powerful parental accommodation tool for the Military Services to help meet the needs of its military parents while balancing the needs of their missions.

i. CIPP Implementation in the Navy

As mentioned above, the Navy was the first of the Military Services to implement the CIPP.[458] Navy applicants are required to submit a personal statement to the selection board that explains the "purpose for which the applicant intends to use the CIPP" and an endorsement from their commanding officer "that addresses the motivation and potential of the applicant within the applicant's community and provide[s] a specific approval or disapproval recommendation."[459] From implementation of the program in 2009 through July 2015, 130 sailors had applied to participate in the CIPP. During this period, the Navy was statutorily authorized to approve up to 280 sailors for the CIPP.[460] It is notable that the Navy received less than half that number in applications. At any rate, of those 130 applicants, 111 were approved.[461] Participating sailors used the sabbatical period for a wide range of reasons including pursuing educational goals, staggering career milestone timelines for dual-military couples, and caring for ailing parents or young children.[462]

As of July 2015, thirty-seven sailors had completed their sabbaticals.[463] As of October 2015, one of those thirty-seven sailors had separated from the Navy before completing his or her CIPP-incurred service obligation, and sufficient time had passed for only five sailors to have completed their CIPP-incurred service obligation.[464] Of those five sailors, one separated from the Navy after his or her service obligation and one transitioned to the Navy Reserves.[465]

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129 Stat. 726, 812 (2015).

458 GAO, CIPP, *supra* note 442, at 8.

459 U.S. Dep't of Navy, Office of the Chief of Naval Operations Instr. 1330.2B, Navy Career Intermission Pilot Program Guidelines at para. c.(9)-(10) (14 Feb. 2013).

460 *See* NDAA 2009, *supra* note 115, at § 533(c).

461 *Id*. at 19. Of the 130 applications, eleven were disapproved, six were withdrawn by the service member, and two were pending as of the publication of the GAO's report. *Id*.

462 *Id*.

463 *Id*.

464 *Id*.

465 *Id*.

Neither the DoD nor the Navy have accomplished any studies or interviews of participants yet to determine whether participation in the program influenced them to elect to stay in the Navy longer than they would have if they had not taken part in the CIPP.[466] Further, insufficient time has elapsed to determine if participation in the CIPP adversely affects promotion and, as a consequence, long term retention.[467] Nonetheless, the DoD considers the CIPP to have succeeded as a retention tool any time a participant completes the two-for-one service obligation incurred by the program because the Military Service retained that member for longer than it would have been guaranteed without the CIPP's additional service obligation.[468]

ii. CIPP Implementation in the Marine Corps

The Marine Corps was the second of the Military Services to begin participating in the CIPP, commencing the program in August 2013. Marines that have participated in the program have taken sabbaticals for a variety of reasons including to reside with a spouse, attend graduate school, attend seminary, and to care for children and focus on family.[469] Marines' participation in the CIPP is lagging far behind that of members of the other services.[470] During the first three years of its participation in the CIPP, the Marine Corps only received a total of seven applications and approved six for participation in the program.[471] By contrast, the Navy approved twenty-eight sailors during the first three years of its participation.[472] While it could be expected that the Marine Corps would have lower participation numbers than the Navy due to the smaller size of the Marine Corps (in January 2016, there were 324,230 active duty sailors and 184,418 active duty Marines),[473] even proportionally the Marine Corps is lagging behind. To have kept pace with the Navy, the

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[466] Henderson, Telephone Interview, *supra* note 437. The DoD plans to conduct such interviews for its CIPP report due to Congress in 2017. *Id*.

[467] *Id*.

[468] *Id*.

[469] GAO, CIPP, *supra* note 442, at 20.

[470] See Table, *supra*, Part III.C.2.a. *See also* Seck, *supra* note 437.

[471] GAO, CIPP, *supra* note 442, at 20. Additionally, two applicants approved by the Marine Corps withdrew their applications, so from 2013 through 2015, only four Marines ultimately participated in the CIPP. *Id*.

[472] *Id*. at 19.

[473] *See* DMDC, DoD Active Duty Military Personnel, *supra* note 307. To calculate these figures, the author added the "Total Officer" and "Total Enlisted" figures rather than using the "Grant Total" because the "Grand Total" figure included cadets and midshipmen who are not eligible for participation in the CIPP.

Marine Corps would have needed to accept fifteen applicants for participation in the CIPP during its first three years.

The Marine Corps' disproportionately low participation in the CIPP may be due, in part, to culture, but the highly restrictive eligibility requirements established by the Marine Corps is also likely having an adverse effect on participation. The implementing guidance for the Marine Corps enumerates fourteen separate criteria that render its personnel ineligible for participation in the CIPP.[474] Most significantly, the Marine Corp limits eligibility for enlisted personnel to those in the paygrades of E-6 and E-7 (with less than 15 years of service).[475] This criterion alone makes more than 86% of enlisted Marines ineligible for participation in the CIPP.[476]

Additionally, on average, it takes a Marine 10.4 years in service to attain the grade of E-6.[477] Thus, a Marine who enlists at the age of eighteen years, would ordinarily be about twenty-eight years old before he or she becomes eligible for the CIPP. Also, on average, a Marine attains the grade of E-7 at 14.8 years in service.[478] Thus, the average E-7 only remains eligible for the CIPP for the first two to three months after he or she promotes to E-7. Meanwhile, the average age of a Marine when his or her first child is born is 24.3 years.[479] Consequently, most Marines will have started their families nearly four years before they become eligible for the CIPP, making the CIPP a less valuable parental accommodation resource for new Marine parents.

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[474] U.S. Marine Corps, Marine Administrative Message 418/13, Career Intermission Pilot Program at paras. 3.A.(7)(A)-(N) (23 Aug. 2013) [hereinafter MARADMIN 418/13].

[475] *Id*. at para. 3.A.(7)(H).

[476] *See* DMDC, DoD Active Duty Military Personnel, *supra* note 307. To calculate these figures, the author added the total number of E-6 and E-7 active duty Marines (15,151 + 8,319) and subtracted that sum from the total number of enlisted Marines (163,768).

[477] Rod Powers, *Marine Corps Enlisted Promotion System*, The Balance, http://usmilitary.about.com/cs/marinepromotions/a/marineprom.htm (last updated Oct. 18. 2016).

[478] *Id*.

[479] U.S. Marine Corps, The Marine Corps Demographics Update, *supra* note 301, at 3.

iii. CIPP Implementation in the Army

The Army instituted the CIPP, in 2014, five years after Congress authorized it.[480] In its first year, ten soldiers applied for the program and nine were accepted.[481] Of those nine soldiers, three ultimately opted not to take a sabbatical.[482] The remaining six soldiers began their sabbaticals in the summer of 2015 and are using them to pursue higher education, travel, align the participant's assignment cycle with that of an active-duty spouse, and to "address family and medical issues."[483]

The Army's policy enumerates fifteen separate criteria that can render a soldier ineligible for participation in the CIPP.[484] Under these criteria, "[s]oldiers assigned to the Medical Corps, Dental Corps, Veterinary Corps, Medical Service Corps, Army Nurse Corps, Army Medical Specialist Corps, Judge Advocate General's Corps and Chaplains Corps," are ineligible to participate in the CIPP.[485] Those excluded career fields traditionally contain a disproportionately high number of females compared to other career fields throughout the Armed Forces. Thus, many female soldiers do not have the option of taking CIPP sabbaticals to care for their children because of the Army's career field exclusions. The Army may also have stunted applications through how its representatives present the program. For example, an Army CIPP program manager explained that when soldiers use the CIPP for family-related purposes, most of them use it when "unexpected life events occur," such as spending time with parents in very poor health at the end of their lives, caring for a child with disabilities that requires frequent medical appointments, or undergoing fertility treatments.[486] Such representations by Army officials may dissuade both male and female soldiers from attempting to use the CIPP to improve their work-family balance.

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[480] U.S. Dep't of Army, Dir. 2014-07, Army Career Intermission Pilot Program (9 May 2014) [hereinafter Army Dir. 2017-07].

[481] GAO, CIPP, *supra* note 442, at 20. The one soldier that was not accepted into the CIPP was "determined to be ineligible due to remaining service obligation." *Id*.

[482] *Id*.

[483] *Id*.

[484] Army Dir. 2014-07, *supra* note 480, at paras. 5.a.-o.

[485] *Id*. at para. 5.n.

[486] *Army Career Intermission Pilot Program*, NCOSupport.com (June 12, 2015) http://www.ncosupport.com/education/army-career-intermission-program.html.

iv. CIPP Implementation in the Air Force

The Air Force also began participating in the CIPP in mid-2014. The Air Force expressly reserves participation in the program for "[t]op performers with a bright future" who the Air Force does not want to lose to "premature separation" due to "competing priorities."[487] To select applicants, the Air Force "assess[es] all factors in the Airman's military personnel record that bear on his or her potential to serve in the Air Force in the future, including leadership and duty performance, professional qualities and development, depth and breadth of experience, and achievements."[488] Airmen applying for the program must submit a memorandum explaining their intended use of the CIPP, but it is impermissible for the selection panel to consider the intended use as a selection criterion.[489] The Air Force's policy sets forth nine criteria that renders an airman ineligible to participate in the program, but none of them, other than the DoD-mandated preclusion of service members in their first term of service, appear to be of a nature to disproportionately affect women or airmen, in general, looking to use the CIPP as a means to dedicate time to starting and raising a family.[490]

When the Air Force announced the CIPP, the Air Force's top civilian, Secretary James; its top officer, Air Force Chief of Staff General Mark Welsh; and its top enlisted personnel, Chief Master Sergeant of the Air Force James Cody, all vocalized their support of the program.[491] As a result, in the Air Force's first year of offering the CIPP to its service members, it had more participants than any of the other Military Services in any year they have offered the program.[492] In 2014, forty-six airmen applied to participate in the

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[487] *AF Implements Career Intermission Pilot Program*, Air Force News Service (July 30, 2014), http://www.af.mil/News/ArticleDisplay/tabid/223/Article/486908/af-implements-career-intermission-pilot-program.aspx.

[488] U.S. Dep't of Air Force, Guidance Memorandum 2016-36-02, Air Force Guidance Memorandum for Career Intermission Program (CIP) at Attachment 1, para. 4.1. (23 May 2016), http://static.e-publishing.af.mil/production/1/af_a1/publication/afgm2016-36-02/afgm2016-36-02.pdf.

[489] *Id*. at para. 6.2.

[490] *Id*. at paras. 4.2.1.-4.2.9.

[491] *AF Implements Career Intermission Pilot Program*, *supra* note 487.

[492] GAO, CIPP, *supra* note 442, at 8. Thirty-five airman were approved for participation in the CIPP in 2014, the first year the Air Force offered the program. The next highest number of approved applicants reach by one of the other Services was thirty applicants, which the Navy also attained in 2014. *Id*.

CIPP and thirty-five were approved for participation.[493] Of those thirty-five airmen, one was subsequently disqualified for "quality reasons arising after selection," and four decided not to take a sabbatical.[494] The thirty remaining participants are using the CIPP to pursue higher education, realign their assignment cycle or promotion window with an active-duty spouse to facilitate being stationed together in the future, and to "care for a family member or start a family."[495]

b. How the CIPP Can Help Equalize Parental Accommodations: Possibilities and Challenges

Now that Congress has eliminated the ban on participation for personnel in their first term of service and the cap of forty participants per Military Service, the CIPP stands to serve as a key parental accommodation for both military mothers and fathers. The Pentagon does not plan to place its own caps on the number of participants each Service may support; it plans to leave that determination to the Secretaries of each of the Military Services.[496] Thus, the Military Services will be able to weigh the needs of their current mission requirements against their needs for future retention of personnel as well as the familial needs of their service men and women. By expanding the CIPP program, the Armed Forces will be able to allow more military parents to use sabbaticals as a substitute for parental leave and/or deployment deferrals.

One of the main benefits of using a CIPP sabbatical in place of other parental accommodations is that it pauses a participant's active duty service.[497] This means that a service member will not receive a performance appraisal while he or she is participating in the CIPP, or for a sufficient amount of time after the service member returns to active duty for him or her to accumulate the minimum number of days required before a performance appraisal can be accomplished. Thus, the potential disadvantage military mothers may experience by competing against their peers after taking twelve weeks of

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[493] *Id*. at 19. "The Air Force disapproved 11 applicants because they did not meet basic eligibility requirements or, according to Air Force officials, did not have competitive performance ratings." *Id*. at 19-20.

[494] *Id*. at 19.

[495] *Id*. at 20.

[496] Henderson, Telephone Interview, *supra* note 437.

[497] Luke W. Nowakowski, *Career Intermission Program Available to Eligible Airmen*, Buckley Air Force Base News (Aug. 12, 2015), http://www.buckley.af.mil/News/Article-Display/Article/732055/career-intermission-program-available-to-eligible-airmen.

maternity leave and being non-deployable due to pregnancy and the deferral policies could disappear for CIPP participants if they coincide their CIPP sabbaticals with the time when those accommodations would ordinarily occur.

Another significant benefit for service members that use CIPP sabbaticals in place of other parental accommodations is that it "resets their year group."[498] For officers, the term "year group" refers to a group of officers who received their commissions within the same timeframe.[499] Or, put more simply (although not entirely accurately),[500] a group of officers who all started serving as officers in the same year.[501] For most officers, when they become eligible for promotion depends upon their year group, with each year group progressing toward pre-determined promotion eligibility zones based on the number of years of service since commissioning.[502] For enlisted personnel, the term "year group" is rarely used, but would generally refer to a group of individuals who have held the same rank for the same timeframe, such as all those individuals who promoted to E-5 in the same year.[503] Enlisted personnel have to hold a particular rank for a set amount of time before they are eligible to promote to the next higher rank.[504] To illustrate, individuals who would have been eligible for promotion in 2016, would instead become eligible in 2017 if they take a one-year sabbatical, 2018 if they take a two year sabbatical, and so on.

The advantage of resetting the year group is that it ensures those who take a CIPP sabbatical compete for promotion against individuals who have the same number of years of experience as themselves. Individuals who participate in the CIPP remain competitive for promotion because they will not be competing against individuals who have accumulated one, two, or three more years of experience than themselves.[505] Thus, in conjunction

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[498] *Id*.

[499] Telephone interview with Lt Col Gregory Marty, Chief of Promotion Board Operations, Air Force Reserve Personnel Center (Apr. 12, 2016) [hereinafter Marty, Telephone Interview].

[500] An in-depth explanation or understanding of the officer promotion system is unnecessary for this discussion and beyond the scope of this article. For more information on officer promotions, see 10 U.S.C. Chapter 1405, *Promotions*, Pub. L. No. 114-38.

[501] Marty, Telephone Interview, *supra* note 499.

[502] *Id*.

[503] *Id*.

[504] *Id*.

[505] U.S. Dep't of Navy, Navy Personnel Command, CIP Frequently Asked Questions,

with avoiding lackluster performance appraisals due to using other parental accommodations, the year-group reset could negate any potential career disadvantages resulting from maternity leave and deployment deferrals.

The CIPP also provides needed flexibility for the Military Services. As discussed above, if mission requirements so necessitate, a commander can disapprove a service member's request to participate in the program or, via the Service Secretary, recall individuals from sabbatical. Additionally, if the Military Services expand the CIPP to allow for greater use as a parental accommodation for both mothers and fathers, there is nothing in the NDAA for Fiscal Year 2009 precluding the Military Services from capping the length of sabbaticals, if such a measure is deemed necessary for the good of the Service.[506] Finally, service members who are on sabbatical do not count against their unit's or their Service's "end strength," meaning that they are not accounted for in the precise number of people the unit or the Military Service is allowed to have at any given time.[507] As such, when a service member takes sabbatical, the position in which he or she was serving is free to be filled by transferring another service member into that position. This is not an option that exists for parental leave, because in parental leave situations, the member is still assigned to his or her unit and, therefore, counts against its end strength. Consequently, in many ways, the CIPP offers more flexibility to commanders than parental leave and deployment deferrals.

However, there are challenges to the CIPP becoming a key parental accommodation tool. The main challenge the Services will have to overcome is culture.[508] In varying degrees throughout the Armed Forces, there is a cultural ideal that if a service member prioritizes anything over their military service, including their families, they lack loyalty and are less suitable for advancement.[509] Officials from the Military Services attribute the low

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http://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/tflw/Pages/FrequentlyAskedQuestions.aspx (last visited Apr. 13, 2016).

[506] *See generally*, NDAA 2009, *supra* note 107.

[507] Henderson, Telephone Interview, *supra*, note 437. *See also* 10 U.S.C. § 115(a) (2012) (explaining Congress' authority to control the number of service members in the Armed Forces).

[508] *See* GAO, CIPP, *supra* note 442, at 10 (stating that Service officials identified military culture may adversely influence participation in the CIPP).

[509] *See id*. (conveying a CIPP participant's report that his chain of command told him that people would assume that he did not want to be competitive for advancement because he prioritized his family over his career).

applications rates in the CIPP, in part, to this culture.[510] Consequently, even if the Military Services significantly raise the cap on annual participants, the program will continue to be underutilized if the Services do not also address the cultural issue. To address the negative stigma of taking a sabbatical, leadership needs to embrace it. The Navy, Army and Marine Corps could learn from the example set by the Air Force in this regard. By having all of its top leadership publicly show support for the program, and by publicizing stories of ordinary parents with typically healthy children benefitting from the program, the Air Force, in its inaugural year of the CIPP, was able to surpass the participation levels any of the other services had attained over the life of the program.[511] This kind of top-down down support for the CIPP will be necessary in order for it to become a viable parental accommodation for both military mothers and fathers.

As part of a unified parental accommodations scheme, the CIPP has the potential to equally provide service members with the ability to prioritize their families, at a time when it is most crucial to do so, without adversely affecting their careers. The CIPP heeds the wisdom behind the FLMA of bestowing benefits equally between the genders. Consequently, the CIPP can provide military fathers with a meaningful work-life balance tool and can eliminate the potential disadvantages to military mothers caused by significantly one-sided parental leave and deployment deferral accommodations. These benefits cannot become reality, however, without greater support by the Pentagon and Military Service leaders.

IV. Conclusion

The DoD's new twelve-week maternity leave policy is a step in the right direction, but could prove to be a Pyrrhic victory for military mothers as part of the military's significantly gender-imbalanced parental accommodations scheme. The stresses of trying to balance family and military service have disproportionately affected the retention of women. [512] The Pentagon understands that diversity, including gender diversity, makes an organization

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[510] *Id*.

[511] *AF Implements Career Intermission Pilot Program*, *supra* note 487; GAO, CIPP, *supra* note 442, at 8; *see*, *e.g.*, Omari Bernard, *Balancing Career, Family through Career Intermission Program*, 18th Wing Public Affairs (June 26, 2015), http://www.af.mil/News/ArticleDisplay/tabid/223/Article/601844/balancing-career-family-through-career-intermission-program.aspx.

[512] Carter, Force of the Future, *supra* note 2.

more innovative and increases performance; qualities the Armed Forces will need in order to continue to successfully adapt to the world's increasingly dynamic operational environment.[513] These considerations ultimately compelled Secretary Carter to double the length of maternity leave, in an effort to attract and retain more women in the Armed Forces.[514]

Publicly announcing one of the most generous maternity leave policies in the United States was an impactful way for the DoD to cast itself as a more family-friendly employment option to female recruits. The new maternity leave policy will invariably improve the work-life balance of service women who start families by giving them an additional six undisturbed weeks at home with their infants. This improved work-life balance may increase the retention of service women. Additionally, despite new mother's longer absence from work, the military also serves to benefit from the longer maternity leave in the form of better attendance and productivity from its new mothers. From these perspectives, the DoD's new policy was a step in the right direction.

However, the Pentagon missed the broader implications that are likely to result from its increasingly imbalanced parental accommodations scheme. The disparity between the parental leave and deferral accommodations provided to male and female service members has the potential of negatively impacting the promotion rates of military mothers. Contributing to unit success and participation in deployments are important factors in both performance appraisals and promotions. Career progression is a high priority for Millennial women.[515] As such, if they are dissatisfied with their career progression, or what they perceive will be their career progression, they will be more likely than past generations of women to leave their current employment to find work that more effectively promotes work-life balance without the sacrifice of career progression.[516] Consequently, the disadvantages to service women's careers that are likely to result from such an imbalanced parental accommodations scheme, could ultimately undermine the Pentagon's retention efforts. Only by leveling the playing field between the parental accommodations for mothers and fathers can the Pentagon mitigate this result.

Due to its unique mission and operational requirements, it would not be feasible for the DoD to simply provide fathers with benefits equal to

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[513] *See generally*, Forsling, *supra* note 6; Campbell, *supra* note 12.

[514] Carter, Force of the Future, *supra* note 2.

[515] Pricewaterhouse Coopers, *supra* note 387, at 4.

[516] *Id*.

those that new mothers currently enjoy. Nonetheless, the DoD must come to accept that its traditional way of thinking—that males are indispensable warfighters and women are primarily caregivers—is no longer a viable way of approaching personnel issues. To secure the Force of the Future as a strong, diverse force, the Pentagon will need to think outside its five-sided box and structure a new, cohesive, and strategic parental accommodations plan that is grounded in greater equality and flexibility.

CONSENT NOT REQUIRED: MAKING THE CASE THAT CONSENT IS NOT REQUIRED UNDER CUSTOMARY INTERNATIONAL LAW FOR REMOVAL OF OUTER SPACE DEBRIS SMALLER THAN 10CM[2]

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> "It is a feature of the human predicament (and so of the legislative one) that we labour under two connected handicaps whenever we seek to regulate, unambiguously and in advance, some sphere of conduct by means of general standards to be used without further official direction on particular occasions. The first handicap is our relative ignorance of fact; the second is our relative indeterminacy of aim."
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> – H.L.A. Hart, The Concept of Law

Abstract

Increasingly, customary international law is developing at a rapid pace. Much of the historical school of thought has been resistant to this change, preferring to recognize these laws only after both act and duration of time allows for significant maturation and acceptance. Conceding that there is some benefit to the historical approach, tried and tested, does not preclude that there is value in embracing a modern shift away from such rigidity. More recent schools of thought proffer that when a true 'meeting of the minds' forms between States, customary international law can be 'instantly' established. In the development of space law, this modern approach provides extraordinary opportunity to establish much needed new rules to respond to crises; particularly that of space debris smaller than 10cm2. Moreover, historical precedent has asserted that material belonging to a State in space is owned in perpetuity, and that third-party removal would require consent. If, instead, a modern approach was adopted toward development of instant customary international law, this onerous ownership rule could be upended. Concurrently, a State having debris removed by another State without consent would have little, if any, legal recourse under such a model.

I. Preface

At any given moment in space, there are millions of artificial objects circling Earth. Of those, only approximately 3,700 objects are known functioning and non-functioning satellites. The remaining millions of artificial pieces amount to scattered junk and are largely orbiting in the most congested and highly utilized Lower Earth Orbit (LEO).[1] Alas, this is not news to anyone remotely familiar with the problem of space debris, but one which continues to be discussed and pondered since very early in the age of space travel. The status of debris in the space environment, particularly LEO, has often been the result of irresponsible actions by nation-states in creating debris, and/or a lack of recognition early on in spacefaring of the problems associated with the accumulation of space debris and their significance. These particles are hurtling through space at extraordinary speeds, capable of destroying or disabling satellites and threatening the lives of astronauts operating in space.[2] What to do about it, however, has created many contentious points of debate from around the world and has been equally challenging. These include, but are not limited to, the fact that the technology to remove space debris is still nascent, untested in anything beyond laboratories on the ground; the cost to remove items in space can be prohibitively expensive; legal challenges; a lack of domestic and international political will; and determining which agencies or countries should act or take the lead. These issues are no doubt only the tip of the iceberg, but they nonetheless on their own risk a "tragedy of the commons" in space,[3] leading states to approach the problem passively rather than actively. The passive efforts states have taken have focused predominantly on mitigating the creation of future space debris which, even in the best of cases, is unlikely to solve the debris problem. Crucially, the drafts and proposals for international non-binding agreements and codes of

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[1] The three most commonly discussed orbits are the Geosynchronous orbit, or GEO, which according to National Aeronautics and Space Agency (NASA) is greater than 35,780 kilometers from the Earth. Holli Riebeek, *Catalog of Earth Satellite Orbits*, NASA Earth Observatory (Sept. 4, 2009), http://Earthobservatory.nasa.gov/Features/OrbitsCatalog. The Mid-Earth Orbit, or MEO, is approximately 2,000-35,780 kilometers, and the Low-Earth Orbit, or LEO, is approximately 180-2,000 kilometers from the Earth. *Id.* The area of greatest congestion and high risk particles is in the LEO orbit. *Id.*

[2] Because of the high impact speed between orbiting objects in space, debris as small as 0.2 mm poses realistic threats to Human Space Flight (EVA suit penetration, Shuttle window replacement, etc.) and other critical national space assets. *See Active Debris Removal Technologies*, Small Bus. Innovation Research, https://www.sbir.gov/content/active-debris-removal-technologies (last visited Feb. 28, 2016).

[3] For amplifying information on tragedy of the commons, see *infra* note 85 and accompanying text.

conduct in space that states have assembled attempt to influence others to act according to a consensus regime, but have no enforcement mechanisms.

Most importantly, even among those states who have chosen to incorporate principles enshrined within these non-binding international agreements and codes of conduct into their domestic law, only the creation of additional space debris is addressed. Little to no law has been created mandating the removal of existing debris. Considering that it is estimated that we are either nearing, or have reached, the point at which the amount of accumulated space debris has made the space environment, particular in LEO, operationally unstable, it is possible we could soon achieve a moment where space is far too hazardous to traverse or operate in.[4] If methods to remove already accumulated space debris are not immediately put in place, it will become exceptionally more difficult to resolve the problem, particularly given the realities of self-replicating space debris hypothesized by Donald Kessler.[5] It is imperative that when debris removal technology becomes fully operational, steps be taken to employ it as expediently as possible. Unfortunately, the provisions of treaties regulating state conduct in outer space has raised unnecessary roadblocks for the removal of the bulk of dangerous space debris.

This paper proposes that the lack of a consensus among states for action to remove space debris is largely a result of their tendency to lump "space debris" into a generic category regardless of size or purpose. To be more specific, the interpretation of law in space today is that an 8-ton non-functioning satellite roaming around in Earth's orbit is subject to the same rules and law as a $1cm^2$ piece of debris. This includes ownership in perpetuity. Because of this interpretation, this paper argues that allowing such an application or interpretation of the law to be counterproductive and should be considered error. Instead, this paper argues that debris smaller than

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[4] Steven A. Hildreth & Allison Arnold, Cong. Research Serv., Threats to U.S. National Security Interests in Space: Orbital Debris Mitigation and Removal 9 (Jan. 8, 2014), https://www.hsdl.org/?view&did=748309.

[5] *See Infra* Part II. Proposed in 1978, Donald Kessler argued generally that with time, enough collisional fragments could be produced to become significant in producing new collisional fragments. Donald J. Kessler & Burton G. Cour-Palais, *Collision Frequency of Artificial Satellites: The Creation of a Debris Belt*, 83 J. of Geophysical Res., 2637 (June 1, 1978), http://webpages.charter.net/dkessler/files/Collision%20Frequency.pdf. When these conditions apply, each collision would cascade increasing the likelihood of more collisions. *Id.* Thus, the number of objects will increase exponentially with time, even though no new objects may be placed into orbit by States. *Id.*

10cm^2 in size can be legally removed using the concept of instant international customary law, irrespective of consent. Think about this:

A 10cm^2 sliver of debris is
smaller than this exact sentence!

And yet, debris of just that size is as dangerous, if not more so, than a much larger piece. But still, the law holds treatment of either categorical size to the same standard as any other piece of material in space. This is not a sustainable scenario.

The distinction made between those objects smaller than 10cm^2 and those larger may appear to be arbitrary. Now, arguing for 10cm^2 as the demarcation line is not to say that 5cm^2, 8cm^2, or 9cm^2 may not also be an effective triage line.[6] However, the choice of a 10cm^2 demarcation line is meant to address several critical realities. First, debris smaller than 10cm^2

[6] Based on this, it is not to say that in the future, as technology increases, a different size could equally be utilized to apply the same law if that was the only principle at issue for the decision maker and not in conjunction with the establishment of the "instant" customary international law (though I would argue the two are interdependent/conditional). For example, there are currently developmental stage attempts at being able to track particularly small debris more accurately with developments in laser technology. *See* Ben Green, *Laser Tracking of Space Debris*, National Aeronautics and Space Agency (NASA) Crustal Dynamics Data Information System (CDDIS), http://cddis.nasa.gov/lw13/docs/papers/adv_greene_1m.pdf (last visited Mar. 22, 2017). The technology is also developing for the sizes of 1-10cm^2, but those are still inconsistent and not without technological challenges. *See Space Debris*, Parliamentary Office of Science and Technology, number 355 (Mar. 2010), http://www.parliament.uk/documents/documents/upload/postpn355.pdf, which discusses that even while the US Space Fence radar system is predicted to add 100,000 new pieces into the catalogue of known debris at the 1-10cm^2 range, this still does not account for all the debris in that size and could be extremely expensive to operate. *Id.* Additionally, Lockheed Martin's 2014 awarded contract of 914.7 million to build a space debris tracking system in space boasts only the ability to accurately go from tracking "basketball" size debris down to "softball" size debris according to the U.S. government's program manager Dana Whaley. *See* W.J. Hennigan, *Lockheed's 'Space Fence" surveillance system to track cosmic debris*, L.A. Times (July 5, 2015 5:00 AM), http://www.latimes.com/business/la-fi-space-junk-project-20140705-story.html. Even at a cost of nearly a billion dollars, the technological jump from a basketball to a softball is not of a magnitude to make debris smaller than 10cm^2 any less of a tracking challenge. This also reinforces the point that while debate may be useful as to the "best" size to choose for a dividing line, this paper proposes that the will to act is far more significant than any random size. If the same principles of size and ability to track with accuracy becomes smaller, the state of the law could flex to justify action on that size.

presents among the greatest threats because it is difficult, if not impossible, to track such objects in space. In addition, particles of this size are tantamount to bullets in space and can cause catastrophic damage to even the largest of space objects without any warning.[7] This makes them considerably more dangerous than larger debris, such as stage rockets, dead satellites, etc. which can be more easily tracked and thus avoided. Second, debris of this size is likely Impossible to attribute to any state. Third, there are several technologies applied to tracking space debris, but all of them suffer from a similar flaw. They cannot (at least per publicly available sources) consistently and reliably track pieces of debris smaller than 10cm[2]. The reason for this difficulty is that debris of this size has both a very small cross section and reduced orbital stability.[8] As well, distance from the tracking system is a challenge, such that distances more than 1000km have posed considerable challenges with today's technology.[9] Fourth, if using "instant" customary international law as the basis

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[7] According to David Hitt of NASA, "Most 'space junk' is moving very fast. It can reach speeds of 4.3 to 5 miles per second. Five miles per second is 18,000 miles per hour. That speed is almost seven times faster than a bullet. And if a spacecraft is moving toward the debris, the total speed at which they collide can be even faster. The average impact speed of a piece of orbital debris running into another object is 22,370 miles per hour. Being hit by a piece of debris smaller than half an inch around–traveling at about six miles per second–would be like being hit by a bowling ball moving at 300 miles per hour. David Hitt, *What is Orbital Debris?*, NASA (June 8, 2010), https://www.nasa.gov/audience/forstudents/5-8/features/nasa-knows/what-is-orbital-debris-58.html.

[8] The reason for this difficulty is that debris of this size has both a very small cross section and reduced orbital stability. As well, distance is a challenge. Up to 1000km, current technology has demonstrated higher capability and more success for tracking smaller pieces. *See* Ben Green, *Laser Tracking of Space Debris*, National Aeronautics and Space Agency (NASA) Crustal Dynamics Data Information System (CDDIS), http://cddis.nasa.gov/lw13/docs/papers/adv_greene_1m.pdf (last visited Mar. 22, 2017).

[9] Up to 1000km, current technology has demonstrated higher capability and more success for tracking smaller pieces. Beyond that distance, the technology and the tools available become less consistent for tracking smaller debris. D. Mehrholz et. al., *Detecting, Tracking, and Imaging Space Debris*, European Space Agency Bull. 109, 128, 129 (Feb 2002); *see also* Zach Wilson, *A Study of Orbital Debris*, University of Colorado at Boulder Department of Aerospace Engineering, http://ccar.colorado.edu/asen5050/projects/projects_2003/wilson/ (Dec, 18, 2003). Mr. Wilson identifies that radar in general does not provide an ability to accurately track the further the distance from the object. In space, the result is that more than one method of tracking is utilized. *Id.* In addition to radar, telescopes are also used to observe orbital debris, such as liquid mirror telescopes (LMT). *Id.* This technology does provide for better imaging and lower cost to develop than conventional telescopes, but also does have limitations, including and ability only to look straight up. *Id.* In application, NASA historically employed this technology, but retired the LMT in 2002. NASA, Orbital Debris Q. News 11, April 2007, at 4-7, https://orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/odqnv11i2.pdf.

for unilateral action, a clear line is more suitable for outlining the customary rule being established. The intent is to be clear regarding what rule is being "instantly" established in the international community to avoid ambiguity that can give rise to endless debate and procrastination. Last, addressing whether pieces of a satellite, or a satellite itself, is truly dead is extremely complicated. On-Orbit Servicing options (OOS, hereinafter referred) are still very juvenile in their development and to what degree they are becoming technologically and financially feasible is still an unanswered issue. Because of this, satellites that otherwise would be considered "debris" today might still have a chance at being put back into use. For example, in May of 1999, Orion 3 was launched with an intended insertion into geostationary orbit.[10] However, the second stage rocket failed to place the satellite in the proper orbit causing the satellite to be unable to function properly.[11] In the event that OOS becomes a truly viable option, an otherwise dead satellite could eventually be returned to service. This could considerably impact the legal implication of debris-removal efforts of today with the technological possibilities of tomorrow. But for now these satellites technically remain non-functioning "debris." Because of these factors, debris smaller than $10cm^2$ is a reasonable threshold for removal, even absent consent, irrespective of current legal and political regimes.

If there is any benefit at all to space debris, it is that from a national security perspective, it affects almost all nations in one way or another. Whether a spacefaring country, or a country dependent on others for use of their satellites or services, the problem is common to everyone. The prospect of being unable to utilize LEO alone not only presents immediate concerns about communication, weather monitoring, and navigation, but also concerns about accessing higher orbits, such as MEO and GEO, where this problem has not yet had significant impact due to relatively limited, specialized use.

Components were incorporated into the Zenith Staring Telescope (LZT) which is run by a consortium of universities and non-profit foundations including the University of British Columbia, Columbia University, and the University of Oklahoma. *Id.* at 5. *See also* NASA, National Orbital Debris Observatory http://www.astro.ubc.ca/LMT/Nodo (last updated May 2002). Based on the aforementioned limitations of distance, both respective to ability to track based on size and accuracy as distance increases, NASA versions currently can track $2cm^2$ diameter objects at altitudes up to 500km, with larger objects tracked beyond that distance. NASA, Orbital Debris Q. News 11, *supra*, at 4.

[10] NASA, *On-Orbit Satellite Servicing Study Project Report* 28 (Oct. 2010), https://sspd.gsfc.nasa.gov/images/nasa_satellite%20servicing_project_report_0511.pdf.

[11] *Id.*

To justify that debris smaller than $10cm^2$ can be legally removed, this paper first broadly surveys the threat of debris and the historical barriers that global agreements have presented to the active removal of space debris across the five major space treaties. It then proposes that, for at least a small (in size) category of debris, removal without consent would not violate international law. To support this position, I discuss the concepts of customary international law, more specifically a modern evolution of "instant" customary international law, to demonstrate that there is precedent to "change" the analysis currently surrounding active debris removal. Last, I argue that from a national security perspective, the United States has a valid national security interest in taking or supporting unilateral remedial measures to reduce the amount of debris in space.

II. Early Space Debris Creation

Early in the space race, the issue of space debris appeared largely inconsequential. At the time, there were only two countries competing to become spacefaring nations; the United States and the Soviet Union.[12] On October 4, 1957, however, the Soviet Union claimed the honor of being the first in space when it launched the world's first artificial satellite, Sputnik 1, into orbit. By January of 1958, Sputnik's orbital velocity had deteriorated and it reentered Earth's atmosphere, leaving nothing of its prior existence in space.[13] At the same time, the United States launched its own satellite into space, Explorer 1.[14] With that, the space race had begun. What was not largely considered at the time was the fact that as the United States and Soviet Union launched more objects into space, the amount of debris that would remain in space also began to accumulate. For example, Explorer 1 did not reenter Earth's atmosphere for almost a decade, leaving space debris floating for almost ten years before finally decaying in the atmosphere on March 31, 1970.[15] Over time the amount of space debris has increased exponentially, particularly in LEO. Exact numbers are impossible to determine with certainty due to the ever-fluctuating amount of debris, but estimates made by many

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[12] *National Space Policy of the United States of America*, The White House 4 (June 28, 2010) [hereinafter National Space Policy], https://obamawhitehouse.archives.gov/sites/default/files/national_space_policy_6-28-10.pdf, at 1.

[13] *Sputnik launched*, History.com (2009), http://www.history.com/this-day-in-history/sputnik-launched (last visited Mar. 22, 2017).

[14] Elizabeth Howell, *Explorer 1: The First U.S. Satellite*, Space.com (Sept. 28, 2012, 4:59 PM), http://www.space.com/17825-explorer-1.html.

[15] *Id.*

space agencies believe the number of total artificial debris is currently more than 100,000,000 pieces.[16]

How did such a large amount of debris accumulate? A common culprit is the disintegration of large pieces of debris. Among the unfortunate large debris-creating events are several notable major incidents. One was the breakup of the STEP II hydrazine propulsion system (HAPS) in 1996.[17] This stage rocket was approximately one meter long and one meter in diameter containing four tanks within the stage.[18] In each of these individual tanks was a variance of either helium pressurant and nitrogen for coolant or hydrazine monopropellant fuel.[19] During the launch, the upper stage (which ultimately exploded) did not expend all its fuel as a result of shutting down early.[20] Ultimately, this led to as much as 10kg of propellant remaining in the tank.[21] When the stage ultimately exploded in 1996, it was estimated to create over 700 pieces of debris in LEO which have remained for decades.[22] A second major incident was the Chinese Anti-Satellite test in 2007.[23] On January 2007, the Chinese successfully tested an anti-satellite missile system (ballistic

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[16] The European Space Agency estimates that there are over 29,000 objects larger than $10cm^2$ in space, 670,000 larger than $1cm^2$, and more than 170 million larger than 1mm2. *FAQ: Frequently Asked Questions*, European Space Agency, http://www.esa.int/Our_Activities/Operations/Space_Debris/FAQ_Frequently_asked_questions (last updated Apr. 20, 2013). NASA is a bit more general, acknowledging that there are approximately 20,000 pieces of debris larger than a softball and 500,000 pieces of debris the size of a marble or larger. *Space Debris and Human Spacecraft*, NASA (Sept. 26, 2013), http://www.nasa.gov/mission_pages/station/news/orbital_debris.html. NASA also acknowledges that there are many millions of pieces of debris that are so small they can't be tracked. *Id.*

[17] On June 3, 1996, a Pegasus Hydrazine Auxiliary Propulsion System (HAPS) used by the STEP II mission broke up in an orbit of 586km. Mika McKinnon*, A History of Garbage in Space*, Gizmodo.com (May 7, 2014, 7:00 PM), http://space.gizmodo.com/a-history-of-garbage-in-space-1572783046. Because of the very high altitude, very little of the debris decayed into Earth's atmosphere. *Id.*

[18] Mark Matney et al., *Characterization of the Breakup of the Pegasus Rocket Body 1994-029B*, European Space Agency, Proceedings of the Second European Conference on Space Debris, Darmstadt, Germany 289 (1997), http://articles.adsabs.harvard.edu/full/1997ESASP.393..289M.

[19] *Id.*

[20] *Id.*

[21] *Id.*

[22] *Id.*

[23] *Chinese Anti-satellite Test Creates Most Severe Orbital Debris Cloud in History*, NASA Orbital Debris Q. News, April 2007, at 1, 2-3, https://www.orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/odqnv11i2.pdf.

interceptor) on one of its own meteorological spacecraft, the Fengyun-1C, which was orbiting approximately 845 km above earth.[24] The result of this missile impact on the satellite caused thousands of pieces of debris to scatter into LEO between approximately 200km and 4000km in altitude.[25] This altitude is considerably important since it is the altitude that is commonly transited by hundreds of operational spacecraft annually.[26] Like the STEP II explosion, this debris continues to pervade LEO and is estimated that it will continue to do so for decades or even centuries since the altitude of this debris is not close enough to Earth's gravitational pull to draw the debris into the atmosphere.[27] A third significant debris creating event was the Iridium 33/ Cosmos 2251 satellite collision in 2009, estimated to have created almost 2,000 large debris pieces and untold amounts of smaller debris.[28] Unlike the deliberate Chinese ASAT Test of 2007, this event involved the inadvertent collision of two very large satellites on February 10, 2009, at an altitude of approximately 790km. This incident was unforeseen and therefore the functioning Iridium 33 satellite (560kg/1,234lbs), a U.S. communication satellite, could not take evasive maneuvers to avoid the Cosmos 2251 satellite (900kg/1,984lbs), a decommissioned Russian communications satellite.[29] If the word "lucky" can be fairly used, it is estimated that the objects did not collide head-on (which could have created tens of thousands of debris particles) but instead at a right angle and on top of the Iridium satellite, thus leaving Iridium 33 largely in-tact.[30] Still, it was estimated by the U.S. Space Surveillance Network (SSN) that at least 528 pieces of debris from Iridium 33 and 1,347 from Cosmos 2251 greater than 10cm^2 were produced.[31] And,

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[24] *Id.*

[25] *Id.*

[26] *Id.*

[27] *Id.* It is also notable that it is estimated that the number of large items, 5cm^2 or greater, is over 2000, and the number 1cm^2 or greater could be as high as 35,000. *Id.* In addition, at the time of the incident, the debris created was singularly responsible for comprising over 15% of the known debris in space at the time. *Id.*

[28] *Satellite Collision Leaves Significant Debris Cloud*, Orbital Debris Q. News, April 2009, at 1, 1-2, https://orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/odqnv13i2.pdf. *See also* Brian Weeden, *2009 Iridium-Cosmos Collision Fact Sheet*, Secure World Foundation, http://swfound.org/media/6575/swf_iridium_cosmos_collision_fact_sheet_updated_2012.pdf (last updated Nov. 10, 2010).

[29] Brian Weeden, *2009 Iridium-Cosmos Collision Fact Sheet*, Secure World Foundation, http://swfound.org/media/6575/swf_iridium_cosmos_collision_fact_sheet_updated_2012.pdf (last updated Nov. 10, 2010).

[30] *Id.*

[31] *Id.*

while a few pieces have decayed into the atmosphere, it is believed that over half of the debris will remain in orbit for at least 100 years.[32]

The aforementioned debris creating incidents are only a small sample of the more significant incidents. Consider also that aside from these three incidents, the United States National Aeronautics and Space Administration (NASA) estimates that between 1961 and 2007, there have been more than 194 space objects suffering moderate to serious breakups and another 51 objects succumbing to some kind of debris-producing event.[33] The significance of these events, and their unfortunate common occurrence, cannot be understated. For example, most recently, between August 2015 and March 2016, NASA noted that there were four significant satellite breakups accounting for over a hundred pieces of debris.[34] This included the Russian *Fregat* Upper Stage breakup on August 3-4, 2015 accounting for at least 24 pieces of debris,[35] the U.S. NOAA-16 satellite breakup in November 2015 accounting for at least 136 pieces of debris,[36] the Russian *Briz-M* Core stage fragmentation on January 16, 2016, accounting for at least 10 pieces,[37] and the Russian Sistema Obespecheniya Zapuska (OSZ) motor on March 26, 2016, accounting for at least 21 pieces.[38] Keep in mind that although all four of these recent incidents account for pieces large enough to be tracked, they likely also generated a number of smaller, untrackable fragments.

Beyond the significance of these incidents, complications further arise because of the probability of existing pieces of space debris colliding with each other to create even more debris. This is commonly referred to as the Kessler Syndrome.[39] First suggested by Donald J. Kessler and Burton

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[32] *Id.*

[33] *History of On-Orbit Satellite Fragmentations*, NASA Orbital Debris Program Office, https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20080022435.pdf (June 2008).

[34] Orbital Debris Q. News, April 2016, at 1, 1-4, https://orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/odqnv20i1-2.pdf.

[35] *Fragmentation of Fregat Upper Stage Debris*, Orbital Debris Q. News, April 2016, at 1, 2-3, https://orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/odqnv20i1-2.pdf.

[36] *Recent NOAA-16 Satellite Breakup*, Orbital Debris Q. News, April 2016, at 1, 1, https://orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/odqnv20i1-2.pdf.

[37] *Briz-M Core Stage Fragments Near Geosynchronous Orbit*, Orbital Debris Q. News, April 2016, at 1, 3-4, https://orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/odqnv20i1-2.pdf.

[38] *Russian SOZ Unit Breaks Up in March*, Orbital Debris Q. News, April 2016, at 1, 4, https://orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/odqnv20i1-2.pdf.

[39] Kessler & Cour-Palais, *supra* note 5.

G. Cour-Palais in the Journal of Geophysical Research in 1978, this theory logically suggests that as debris accumulates in a certain area, over time, the chances of collision between those debris pieces increases.[40] For each piece that collides with another piece, more debris is created.[41] Kessler and Cour-Palais eventually concluded that "with time, enough collisional fragments could be produced to become important in producing new collision fragments. When these conditions apply, the number of objects will increase exponentially with time, even though no new objects may be placed into orbit...."[42]

There is also evidence that even if no new debris is added to space, the potential for an increase in debris, to the point of possibly one day making space unusable, could already exist. For example, the United Nations suggested that as of 2009, at the estimated rate of decay of $10cm^2$ or larger objects in LEO, only approximately 5 objects naturally decay annually.[43] At the same time, approximately seven times that amount is injected into space annually.[44] If we rely only on natural decay for the removal of space debris, the evidence is clear that the environment in space will become increasingly polluted and at high risk for aggravation under the Kessler Syndrome. This potential instability in space could render the environment at risk even with current mitigation efforts.

III. Development of the Laws Relating to Space and Mitigation of Space Debris

At the inception of the first fly-over of Sputnik 1, countries were quick to begin the process for developing the necessary laws to regulate activities in space. The first and most well-known of all the space treaties, the *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies*, commonly known (and as hereinafter referred to) as the Outer Space Treaty, was adopted

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[40] *Id.*

[41] *Id.*

[42] *Id.*

[43] Comm. on the Peaceful Uses of Outer Space, Sci. and Tech. Subcomm., Active Debris Removal—An Essential Mechanism for Ensuring the Safety and Sustainability of Outer Space: Rep. of the International Interdisciplinary Congress on Space Debris Remediation and on-Orbit Satellite Servicing, U.N. Doc. A/AC.105/C.1/2012/CRP.16, at 19 (2012), http://www.unoosa.org/pdf/limited/c1/AC105_C1_2012_CRP16E.pdf.

[44] *Id.*

by the United Nations General Assembly as Resolution 2222 (XXI), opened for signature on January 27, 1967, and entered force on October 10, 1967. It was followed by four other major international space treaties. These are commonly known as the Rescue Agreement, the Liability Convention, the Registration Convention and the Moon Agreement.[45] Each of these treaties addressed expected behaviors in space, including, but not limited to, how space could be used and what was expected for its use. It quickly became evident that these treaties failed to create consensus either in the language or meaning, which resulted in considerable ambiguity. Much of this was the result of disagreements between the United States and the Soviet Union, which were the only major spacefaring powers at the time these treaties were formed.[46] Thus, although these agreements reflect important steps in the

[45] The Rescue Agreement is formally known as the *Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space*. *See Space Law Treaties and Principles*, United Nations Office for Outer Space Affairs, http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties.html (last visited Feb. 29, 2016). It was adopted by the General Assembly in Resolution 2345 (XXII), opened for signature on April 22, 1968, and entered into force on December 3, 1968. *Id.* It was followed by the *Convention on International Liability for Damage Caused by Space Objects* [hereinafter Liability Convention], adopted by the General Assembly in Resolution 2777 (XXVI), opened for signature on March 29, 1972, and entered into force on 1 September 1972. *Id.* The Registration Convention, formally known as the *Convention on Registration of Objects Launched into Outer Space*, was adopted by the General Assembly in Resolution 3235 (XXIX), opened for signature on January 14, 1975, and entered into force on September 15, 1976. *Id.* The last, and signed by the fewest States, is the Moon Agreement, formally known as the *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies*, adopted by the General Assembly in its Resolution 24/68, opened for signature on December 18, 1979, and entered into force on July 11, 1984. *Id.*

[46] For a particularly useful and succinct discussion of the relations between the two superpowers, see Roald Sagdeev & Susan Eisenhower, *United States-Soviet Space Cooperation during the Cold War*, NASA, http://www.nasa.gov/50th/50th_magazine/coldWarCoOp.html (last updated May 28, 2008). Mr. Sagdeev, the former head of the Russian Space Research Institute, described U.S./Soviet relations as "bumpy," characterized by periods of mistrust and overt hostility. *Id.* "Early on, President Dwight D. Eisenhower pursued U.S.-Soviet cooperative space initiatives through a series of letters he sent in 1957 and 1958 to the Soviet leadership, first to Prime Minister Nikolai Bulganin and then to Premier Nikita Khrushchev. Eisenhower suggested creating a process to secure space for peaceful uses. Khrushchev, however, rejected the offer and demanded the United States eliminate its forward-based nuclear weapons in places like Turkey as a precondition for any space agreement. Feeling triumphant after Sputnik's launch, Khrushchev was certain his country was far ahead of the United States in terms of rocket technology and space launch capabilities, unlike the Soviet Union's more vulnerable geostrategic position in the nuclear arena. This would be the first of many times when space was linked with nuclear disarmament and other political issues.

establishment of space law, they fall short when it comes to "precision and definition."[47] Where this becomes especially important is in the discussion of what ownership rights apply in space. To do that it is useful to examine how elements in space are defined, and in turn, treated.

A. Space Object versus Space Debris

Much debate has surrounded whether a piece of debris is also a space object. Were a distinction to exist, property rights relevant to this discussion would be much easier to settle and the resulting authority to remove debris without consent would likely be moot. As it stands, the five space treaties and subsequent declarations do not provide any definitive explanation of what space debris is or how to define it. Consequently, a custom has evolved that treats all artificial material in space as "space objects."

The closest thing to a definition of the term "space object" that has been proffered is contained within the Outer Space Treaty, Article VIII, which states that a space object is that which is "launched into outer space, including objects landed or constructed on a celestial body, and of their component parts."[48] This includes objects that have returned to Earth from space, are found in outer space, or are found on other celestial bodies. While this was the first of many attempts to codify a definition of a space object in a treaty, it developed out of earlier efforts. Even these earlier efforts, however, were

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Meanwhile, the United States energetically proceeded with its multinational initiative under the umbrella of the United Nations to develop a legal framework for peaceful space activities. This eventually led to the Outer Space Treaty and creation of the United Nations Committee on the Peaceful Uses of Outer Space, which a reluctant Soviet Union eventually joined. Only in the late 1980s, as the Soviet Union neared collapse did both countries to seriously pursue strategic partnerships in space." *Id.*

[47] Joyeeta Chatterjee, *Legal Issues Relating to Unauthorized Space Debris Remediation*, 65 Int'l. Astronautical Congress 1, 14 n.58 (2014) (citing Nicolas Mateesco Matte, *Outer Space Treaty*, Encyclopedia of Public International Law, 836, 838 (R. Bernhardt, ed., 1992)), http://www.iislweb.org/docs/Diederiks2014a.pdf. Matte stated in reference to the drafting of the Outer Space Treaty, it "contains[sic] general principles for which the peaceful exploration and use of outer space, including the moon and other celestial bodies…was not to deal with all contingencies that might arise from the exploration and use. It is not a perfect instrument. Some of its principles are obscurely stated…. nevertheless, it represents the most important source of space treaty law." Matte, *supra*, at 838.

[48] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, art. VIII, *opened for signature* Jan. 27, 1967 [hereinafter Outer Space Treaty], http://www.unoosa.org/pdf/gadocs/A_6431E.pdf.

enormously overbroad, indicating a preference to leave the ambiguities as they are. For example, one of the earliest resolutions addressing operations in space and utilizing the word "object" was the U.N. General Assembly Resolution 1962 (XVIII) of December 13, 1963, the *Declaration of Legal Principles Governing the Activities of Space Exploration and Uses of Outer Space* (known as the Declaration of Legal Principles).[49] This Resolution addressed a definition for a space object only so far as to say "objects launched into outer space, and of their component parts."[50] Through the remaining treaties and resolutions, including the Liability Convention, Rescue Agreement, Moon Agreement, and legal declarations, this ambiguity has persisted. This is not to say that there have been no attempts to provide clarity; in fact, the exact opposite would be the case. But, there is no binding consensus among nations.

While international treaties fail to sufficiently define space objects, they provide infinitely more clarity on this subject than they do on the definition of the term "space debris". In fact, none of the major international space treaties contain the word "debris."[51] While secondary sources abound with suggested treaty definitions for the term, none have yet secured international acceptance. Some of these proposed definitions are worthy of further attention here. In August of 1994, one of the first proposals to make a distinction between debris and objects was formally suggested by the International Law Association (ILA) in Buenos Aires. The intent was that the proposal be submitted at the next session of the United Nations Committee on the Peaceful Use of Outer Space (UN COPUOS). The resulting report, touted as "the first concrete proposal for a legal instrument on space debris," defined space debris as "man-made objects in outer-space, other than active or otherwise useful satellites, when no change can reasonably be expected in these conditions in the foreseeable future."[52] In 1999, the Scientific and Technical Subcommittee (STSC) of UN COPUOS[53] proposed its own definition of space debris

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[49] *See, e.g.*, G.A. Res. 18/1962 ¶ 7 (Dec. 13, 1963).

[50] *Id.*

[51] Lotta Viikari, The Environmental Element in Space Law: Assessing the Present and Charting the Future 32 (2008) (ebook). Specifically the "Big 5." Viikari stated that the word debris was, however, mentioned in the context of outer space in other agreements, such as the 1963 *Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water* which prohibited nuclear explosions in the environs as well as in any other environment if such explosions cause radioactive debris. *Id.*

[52] Chatterjee, *supra* note 47, at 3 (citing Karl-Heinz BÖckstiegel, *ILA Draft Convention on Space Debris*, 44 German J. Air & Space L. 29 (1995)).

[53] The Committee on the Peaceful Uses of Outer Space has two subsidiary bodies. *See* U.N., Off. for Outer Space, Comm. on the Peaceful Uses of Outer Space, http://www.

for general understanding among nations. It proposed that space debris be defined as "all-man-made objects, including their fragments and parts, in Earth's orbit or re-entering the dense layers of the atmosphere that are non-functional with no reasonable expectation of their being able to assume or resume their intended functions or any other functions for which they are or can be authorized."[54] This was a major step in the development of a "general consensus" of the definition of space debris, since it was one of the earliest written definitions of space debris by an arm of the United Nations.

Other organizations have also developed their own definitions, both to further their own understanding of how to classify space debris and to influence the general consensus. For example, in 2001, The International Academy of Astronautics (IAA), proposed that space debris should be defined as: "any man-made Earth-orbiting object which is non-functional with no reasonable expectation of assuming or resuming its intended function, or any other function for which it is or can be expected to be authorized, including fragments and parts thereof. Orbital debris includes non-operational spacecraft, spent rocket bodies, material released during planned space operations, and fragments generated by satellite and upper stage breakup due to explosions and collisions."[55]

By 2007, in a report to the United Nations General Assembly, UN COPUOS had incorporated a definition of space debris which represented an amalgam of recommendations of the STSC and other organizations.[56] In

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unoosa.org/oosa/en/ourwork/copuos/index.html (last visited Feb 28, 2016). One is the Scientific and Technical Subcommittee, which provides specific technical and scientific advice to the greater body, which was established in 1961, two years after its parent COPUOS was formed. *Id.* The other is the Legal Subcommittee which discusses legal questions related to the exploration and use of outer space, including legal mechanisms relating to space debris mitigation. *Id.*

[54] U.N., Off. for Outer Space, Comm. on the Peaceful Uses of Outer Space, Sci. and Tech. Subcomm., Rep. of The Scientific and Technical Subcommittee on the Work of its Thirty-Second Session, at 17-18, U.N. Doc. A/AC.105/605 (Feb. 24, 1995), http://www.unoosa.org/pdf/reports/ac105/AC105_605E.pdf.

[55] Walter Flury & Jean-Michel Contant, *The Updated IAA Position Paper on Orbital Debris*, 2 Proc. of the Third Eur. Conf. on Space Debris at 2 (updated 1999), https://iaaweb.org/iaa/Studies/orbitaldebris.pdf.

[56] Part of the report submitted by the STSC was also based on the work of the Inter-Agency Debris Coordination Committee (IADC). Inter-Agency Space Debris Coordination Comm., 20 Years of IADC: 51st Session of the Scientific and Technical Subcommittee, at 3 (Feb. 2014), http://www.iadc-online.org/Documents/IADC-2014-04,%2051st_UN_COPUOS_STSC.pdf. This organization was formed in 1993 as a joint

the annex to the report, it defined debris as "all-man-made objects, including fragments and elements thereof, in Earth orbit or re-entering the atmosphere, that are non-functional."[57] Since then, some states have incorporated similar definitions of space debris into their own domestic law, reflecting very closely the understood international definition from the United Nations, thus indicating at least some general international consensus. However, it is worth noting that significant diversity in the definition remains, creating problems when attempting to address many of the issues posed by space debris. Unfortunately, the United Nations has facilitated this diversity through U.N. General Assembly Resolution 62/217, inviting member states to implement the United Nations' voluntary Debris Mitigation Guidelines through relevant national space debris mitigation practice and procedure mechanisms "to the greatest extent feasible."[58] While many nations have in fact done so to some degree, most have decided to incorporate the United Nations' definition of space debris. For example, whereas NASA defines space debris as "all-man-made objects in orbit about the Earth which no longer serve a useful purpose,"[59] the emphasis of the UN COPUOS definition is "non-functional" objects.[60] In this singular case alone, the lack of a legally binding definition can have immediately evident and widespread impacts on how states approach the problem of debris mitigation and removal.

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effort of the European Space Agency, Russia, the United States, and Japan. *Id.* Some of their work in this area, the Space Debris Mitigation Guidelines, were adopted by consensus of the Steering Group in October 2002 and were presented to the STSC of UN COPUOS in February, 2003. *Id.* These later served as a foundation for the development of the UN COPUOS Space Debris Mitigation Guidelines, which were adopted by COPUOS and later endorsed by the UN General Assembly resolution 62/217 in 2007. *Id.*

[57] Comm. on the Peaceful Uses of Outer Space, Rep. of the Comm. on the Peaceful uses of Outer Space, U.N. Supp. No. 20 (A/62/20), at 47 (2007), http://www.unoosa.org/pdf/gadocs/A_62_20E.pdf.

[58] *Id.* at 48.

[59] *Orbital Debris Frequently Asked Questions*, NASA, http://orbitaldebris.jsc.nasa.gov/faqs.html#1 (last updated Mar. 2012).

[60] The United Nations defines space debris as "all man-made objects, including fragments and elements thereof, in Earth's orbit or re-entering the atmosphere, that are non-functional." U.N. Off. for Outer Space Aff., Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space, at 1 (2010) [hereinafter *Space Debris Mitigation Guidelines*], http://www.unoosa.org/res/oosadoc/data/documents/2010/stspace/stspace49_0_html/st_space_49E.pdf. (2010). Contrast that with NASA, which defines space debris as "all man-made objects in orbit about the Earth which no longer serve a useful purpose." *Orbital Debris Frequently Asked Questions*, NASA Orbital Debris Program Office, https://www.nasa.gov/news/debris_faq.html. (Last updated Sept. 2, 2011).

B. Underpinnings of Ownership Rights Applicable to Space Objects

The debate over the distinction between space objects and space debris exists largely because of the more significant issue of ownership in space. As it relates to the topic of removal (to be discussed more later), if redefining a space object as space debris would classify the object as "abandoned," removal without consent would be easy, as there would be no owner to seek consent from. If redefining an object does not change its ownership status, whether a state might consider an item launched into space as an object or debris at any point isn't dispositive, as the responsibility and ownership for the material remains the same. And at least for now, the status of international law is that defining an item as a space object or space debris does not change its ownership status. Regardless of whether a piece of debris is useful, functioning or otherwise, it is still owned by some entity in perpetuity.

This issue of ownership looms large in general discussions of active space debris removal. Much of the discussion is concerned with the complexities that arise from the interplay among the different space treaties, and the inability of a state to transfer certain aspects of ownership to another. Ownership is particularly complicated as, depending on the issue at hand, ownership may come with different obligations. For example, with launching a space object comes the obligation to register the object. Registration in turn incurs even more obligations. While there is some ability to change some of the obligations of an original launching and registry state, those options are limited. For example, Company A of Country A that originally launched a satellite could transfer ownership of the satellite to Company B of Country B. But while the contract may transfer ownership per se between the two companies, Country A as the launching and registering state still retains all the original obligations of a registering state for the entirety of the life of the satellite. At the same time, while Company A and Company B (and the countries) may make attempts to indemnify by contractual arrangement some of the risks, there are still international obligations as a registering state that still cannot be resolved by contractual indemnification. Therefore, Country A will still retain many of the obligations for the object that it had by virtue of initially launching and/or registering the object.

The complication that results is that consent, if required, may need to come from multiple states with diverse and disparate interests. The relevance of these interests, however, is likely dependent on the size of the objects proposed for removal. In the case of larger objects, an interest could be understandable based on issues such as residual value or proprietary

technology. However, in the case of debris of the size at issue in this paper, the importance of determining ownership should become less relevant, if not completely irrelevant. Simply stated, ownership should not be dispositive for determining if an object smaller than $10cm^2$ can be removed. However, it is important to understand the concerns that countries share and the wide range of issues surrounding ownership.

C. Jurisdiction in the International Environment Related to Space Objects

A second component of ownership is jurisdiction, or "the power of a State to exercise its sovereignty and authority and is based on the principle of effectiveness."[61] Jurisdiction is primarily concerned with the power a state has over things it controls; e.g., persons or property.[62] Furthermore, the state right of jurisdiction rests in its sovereignty.[63] Article VIII of the Outer Space Treaty provides that a state "shall retain jurisdiction…" over its objects.[64] The Registration Convention elaborates on the singular nature of jurisdiction. In Article II, it states that in the case of two or more launching states, they must determine which one will retain jurisdiction.[65] Whoever ultimately retains jurisdiction over an object can assert the privileges associated with that space object. But, they must also assume any associated obligations with the object. This stands independent of registration. Although registration does impose obligations, as discussed below, the state of registry is not always the launching state, if agreement dictates otherwise.

This leads into the ownership aspect of space objects. The basis for ownership in perpetuity is found in the Outer Space Treaty. Articles VI, VII and VIII establish that a state that has launched an object into space will always own and be responsible for it. Article VI of the Outer Space Treaty imposes several obligations on states, including, but not limited to, responsibility for national activities, ensuring that activities are conducted in conformity with the treaty, authorizing and continually supervising the

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[61] Sergio Marchisio, National Jurisdiction for Regulating Space Activities of Governmental and Non-Governmental Entities, 2010 United Nations/Thailand Workshop on Space L. 1, 1-3 (Nov. 16-19, 2010), http://www.unoosa.org/pdf/pres/2010/SLW2010/02-02.pdf.

[62] *Id.*

[63] *Id.*

[64] Outer Space Treaty, *supra* note 48, at art. VIII.

[65] U.N. Office for Outer Space Affairs, *United Nations Treaties and Principles on Outer Space and Related General Assembly Resolutions* 9, 9-10 (2008) [hereinafter *U.N. Treaties and Principles*], www.unoosa.org/pdf/publications/st_space_11rev2E.pdf.

activities, and sharing international responsibility for activities in which the state is a participant. Based on this, the state is responsible for the activities of its space objects, regardless of whether those activities are controlled by the state itself or by private entities within the state's jurisdiction. Article VII of the Outer Space Treaty adds that damage created by an object of a state in space will incur liability for the object by the state. Article VIII concludes that a state party on whose registry an object is launched into outer space shall retain jurisdiction and control over such object and all personnel. It goes on to say that ownership of objects launched into outer space, (including those landed or constructed on a celestial body) and their component parts, is not affected by their presence in outer space.[66] If objects return to Earth, they will remain under the ownership of the launching state if the object can be identified and ownership claimed.

Bolstering Article VIII of the Outer Space Treaty is the Registration Convention. Article II, Section 2, of the Registration Convention provides that where there are two or more launching states for one object, those states will resolve who will register the object. The state who ultimately registers the object will retain jurisdiction and control over the object and any associated personnel.[67] Therefore, pursuant to international law, ownership of a space object attaches to that state that launches the object and registers it. Unfortunately, one of the problems that arises in all cases of registration under the Outer Space Treaty and the Registration Convention is that neither provide any mechanism for detaching a state from ownership over an object on a registry. Because of this, ownership in perpetuity is, for better or worse, assured. Now, as mentioned above, ownership in perpetuity does not equate to an inability to transfer certain rights. However, without a mechanism to remove a state from the status of owner over a registered object or as a launching state, at least one state will always be the owner in perpetuity of a space object, with all the responsibilities and liabilities that come with that status.

With states being responsible for their space objects in perpetuity, states have been forced to consider the collateral consequences of their space operations, such as the creation of space debris. Increasingly states have concluded that, given their responsibility over their space objects, there is an increasing risk that objects left in space have the potential to become at best a liability and, at worst, a threat. Unfortunately, as with many crises, thinking about his problem and what to do about it continues to develop slowly.

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[66] Outer Space Treaty, *supra* note 48, at art. VIII.

[67] *Id*.

IV. History of Mitigation Efforts and the Realization that Mitigation Alone is Insufficient.

Prior to 1994, the possibility that the debris environment in space could seriously hamper the future of navigation and use was often considered, but usually dismissed due to the ever-present notion that space was large enough to withstand an extraordinary amount of debris collection. Therefore, the likelihood of a problem arising, at least early on, was considered quite low. Several factors bolstered this belief. Among them was that in the 1950's, when the first satellites were launched, only two countries had the capability to do so. Also, space objects from early launches remain in orbit for long periods of time. For example, Sputnik 1 entered the Earth's atmosphere and disintegrated after only approximately 92 days in orbit.[68] It was assumed (or believed) that this would likely be the result for most space objects, since initial orbits into LEO were at very low altitude, resulting in greater drag from the atmosphere. It was assumed that most, if not all, materials would inevitably decay and be destroyed in Earth's atmosphere. However, these theories did not appear to account for the advent of more spacefaring countries and private companies, advanced technology, and the utilization of much higher altitudes in LEO and above. Sooner rather than later, space debris growth theories thus had to accept and incorporate the growing congestion in space into their prediction models.

A. Debris Mitigation From 1994-2007

In 1994, the STSC placed the issue of space debris on its regular agenda, recognizing the need to conduct research and investigate the dangers posed by debris and its effect on the environment.[69] In 1995, the STSC moved to characterize the risks of space debris and identify possible protections against the dangers.[70] This prompted a multiyear investigation through 1998 to analyze and investigate then-current debris mitigation practices and assess future options.[71] It was proposed that the resulting report be a living document and include updates to ensure proper analysis in the future.[72] By 1999, the formal report had been published and made available to the Third United

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[68] Yanek Mieczkowski, Eisenhower's Sputnik Moment: The Race for Space and World Prestige 18 (2013) (ebook).

[69] *See generally Space Debris Mitigation Guidelines*, *supra* note 60, at iii.

[70] *Id.*

[71] *Id.*

[72] *Id.*

Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACEIII) and other international organizations.[73]

By 2003, both the STSC and the Inter-Agency Debris Coordination Committee (IADC, hereinafter referred)[74] had developed specific debris mitigation recommendations.[75] By the following year they had also solicited comments from member states on the proposals. This continued until 2007 when, at the 44th STSC, the space debris mitigation guidelines were adopted, followed by adoption by resolution in the General Assembly that same year.[76] The provisions are as follows:

1. Limit debris released during normal operations
2. Minimize the Potential for On-Orbit Break-up
3. Limit the probability of an accidental collision on orbit
4. Avoid intentional destruction or other harmful activities
5. Minimize the potential for post mission break-ups resulting from stored energy
6. Limit the long-term presence of spacecraft and launch vehicle orbital stages in the low Earth orbit region after the end of their mission.
7. Limit the long-term interference of spacecraft and launch vehicle orbital stages with the geosynchronous Earth Orbit (GEO) region after the end of their mission. [77]

B. Post 2007 Debris Mitigation Efforts:

While accepted by resolution, the space debris mitigation guidelines did not address a key factor which has plagued this and every other debris mitigation effort: compliance is voluntary. The guidelines state that "member States and international organizations should voluntarily take measures, through national mechanisms or through their own applicable mechanisms, to ensure that these guidelines are implemented, to the greatest extent feasible,

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[73] *Id.*

[74] See note 56, *supra*, for a brief overview of this organization.

[75] *See generally*, *Space Debris Mitigation Guidelines supra* note 60, at iii-iv.

[76] *Id.* at iii.

[77] Inter-Agency Space Debris Coordination Comm., IADC Space Mitigation Debris Guidelines, at 1, IADC-02-01 Rev. 1 (Sept. 2007), http://www.unoosa.org/documents/pdf/spacelaw/sd/IADC-2002-01-IADC-Space_Debris-Guidelines-Revision1.pdf.

through space debris mitigation practices and procedures."[78] Since 2007, several states have passed laws furthering the objectives contained within the guidelines, including Australia, Belgium, Canada, France, Germany, Japan, the United States, the United Kingdom and Thailand.[79] But while these laws are domestically enforceable in their respective countries, internationally they carry no more weight than the recommendations of UN COPUOS, UN General Assembly Resolutions, or issuances of the International Telecommunications Union (ITU).[80]

In the current environment, a common standard for debris mitigation might not be necessary except for the fact that the threat of space debris is beginning to reach proportions that cannot be ignored. More importantly, it is increasingly clear that current mitigation efforts are insufficient to stabilize the space environment. Instead, a dangerous environment is getting more dangerous because the creation of debris is outpacing the natural decay of debris in space and there are no mandatory preventive rules to preclude further injections of debris into the environment.

In 2011, as the seriousness of this issue became progressively evident, the National Research Council in the United States was asked to study NASA's efforts to address debris in space, and make recommendations whether the efforts of NASA were appropriate or should be vectored elsewhere.[81] Their analysis included a review of national and international models on space debris creation and mitigation and resulted in a rather stunning conclusion. They surmised that based on the available data, even if spacefaring nations were to comply with a rule limiting the orbital lifetime of debris released into space to 25 years,[82] the amount of debris created would continue to grow

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[78] *See generally*, *Space Debris Mitigation Guidelines supra* note 60, at 2.

[79] *See* Mitigation Standards, *supra* note 60.

[80] Also important to note is that while the focus of this paper is generally limited to the issues facing the LEO orbit, the issue is becoming more prevalent in other orbits as well. Int'l Telecomm Union, Recommendation, ITU-R S.1003.2, http://www.unoosa.org/documents/pdf/spacelaw/sd/ITU-recommendation.pdf. This addresses recommendations for minimizing space debris in GEO with similar recommended limitations as the IADC/UN COPUOS measures in LEO. *Id.*

[81] Commitee for the Assessment of NASA's Orbital Debris Programs, Limiting Future Collision Risk to Spacecraft: An Assessment of NASA's Meteoroid and Orbital Debris Programs viii (2011) (ebook).

[82] This is a rule accepted commonly among Spacefaring nations, implemented through national legislations, that debris released into space should be limited to a maximum orbital lifetime of 25 years. Process for Limiting Orbital Debris, NASA 21 (2011),

in spite of even the strictest adherence to the UN's mitigation guidelines.[83] Their analysis revealed that "the rate of collision [in LEO below 2,000 km] had already reached the point that debris would be generated faster than it could be removed by natural forces, mainly atmospheric drag."[84] Furthermore, based on NASA's most recent model, "it would be necessary to remove five large, intact objects per year over the next 100 years in order to prevent this future growth in the orbital debris population, assuming that 90 percent of future launches follow NASA's current mitigation guidelines including that no further explosions or other major release of debris occur."[85] In short, in even the best of scenarios, the LEO environment could become inaccessible in the future because of debris super-saturation unless active debris removal efforts are undertaken. The NRC's conclusion prompted even further analysis.

In 2013, based on efforts initiated in 2009, the IADC also undertook a serious analysis of the problem presented by debris accumulation in LEO. The IADC analysis also concluded that current mitigation efforts in the international space community, including those of their own body and the UN, "may be insufficient to stabilize the future orbital debris environment."[86] As such, they determined that "additional measures should be considered to better preserve the near-Earth space environment for future generations."[87] It is also worth noting a few key points about the analysis, which is a cautionary tale on the true magnitude of the threat. First, the analysis was premised on the "best case scenarios." The assumptions identified in the report include that future launch traffic would be represented by the historical cycle of launches from 2001-2009. Second, the mitigation measures were presumed to be well-implemented, such that "90% [complied] with the post-mission disposal '25 year' rule for payloads and a 100% success for passivation (no

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http://www.hq.nasa.gov/office/codeq/doctree/871914.pdf. The specific rationale is to limit the amount of debris collecting in the space environment over the next 100 years and is discussed in the NASA Technical Standard as having been "thoroughly researched and has been accepted by the U.S. Government and major space agencies of the world." *Id.*

[83] Nat'l Research Council of the Nat'l Acads., Limiting Future Collision Risk to Spacecraft: An Assessment of NASA's Meteoroid and Orbital Debris Programs, 10-13 (2011).

[84] *Id.*

[85] *Id.*

[86] Inter-Agency Space Debris Coordination Comm., Stability of the Future LEO Environment, at 1, IADC-12-08 Rev. 1 (Jan 2013), http://www.iadc-online.org/Documents/IADC-2012-08,%20Rev%201,%20Stability%20of%20Future%20LEO%20Environment.pdf.

[87] *Id.*

future explosion) were assumed....In addition, an 8-year mission lifetime for payloads launched after 1 May 2009 was uniformly adopted."[88] It is not a stretch to imagine that with the increase in spacefaring nations, and advances in technology, it is unlikely that the launches of 2001-2009 will reflect those of the future, particularly with the increase of private operators in space.

What these reports demonstrate is that the current mitigation methods are likely to be inadequate and more aggressive measures are needed.[89] Even as late as June 2014, in the 57th session of UN COPUOS, "the Committee noted the increasing amount of space debris."[90] Though clearly satisfied with the acceptance of the mitigation recommendations from the previous session, there was general acknowledgement that the problem continues to grow.

C. Political Challenges to Mitigation

Beyond the fact that mitigation efforts alone currently cannot outpace the creation of space debris, there are several other issues which also greatly hinder the active removal of space debris. Although not all can be discussed here, the political landscape is worthy of mention. In particular, there appears to be a general malaise toward taking strong mitigation measures. Much of this may be due to a lack of a perceived need to act quickly; i.e. in many areas of the world the environment in space is not the most pressing issue compared to problems such as poverty, shelter, food, war, and natural disasters. For the political establishment facing these issues it is not surprising that solving space debris problems is not at the forefront. In fact, particularly among many emergent spacefaring countries, space debris is among the least of their concerns.

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[88] *Id.* at 2.

[89] More daunting from the same report of Dr. Liou, et. al, Stability of the Future LEO Environment, was the conclusion in the report of the IADC in January 2013 that six IADC member agencies, Italy (ASI), Europe (ESA), India (ISRO), Japan (JAXA), the United States (NASA), and the United Kingdom (UKSA), all participated in a debris study utilizing six different models. The outcome of all were consistent with one another and concluded that even with a 90% compliance of the commonly-adopted mitigation measures, these countries concluded that "the LEO debris population is expected to increase by an average of approximately 30% in the next 200 years. Catastrophic collisions will continue to occur every 5 to 9 years." *Id.* at 1. They also indicated that mitigation would be inadequate to address the problem, and active debris mitigation should be considered. *Id.* at 17.

[90] Rep. of the Comm. on the Peaceful Uses of Outer Space; Fifty-seventh session, at 41, U.N. Doc. A/69/20 (Jun. 2014) [hereinafter Rep. on the Fifty-seventh session], http://www.unoosa.org/pdf/gadocs/A_69_20E.pdf.

Moreover, there is also a viable argument that debris is a particularly low threat to resolve since several contributing factors indicate that no one will likely be held accountable for any potential disaster. First, the fact that liability is unlikely to be imposed creates perverse incentives that favor either low accountability, or on balance, a risk-benefits analysis which favors high benefits (operations in space for profit) to low risk (only accountable in space for damage if both identification of damage from an object and a determination of a state at fault can be proven). This is because while an object in space is owned by a state in perpetuity, liability for damages is bifurcated. According to the Liability Convention, if one object causes damage to another object in space, then liability only attaches if fault can be proven.[91] If damage is caused in the air or on Earth, the responsible party is absolutely liable (but even in this case, liability has been exceptionally financially insignificant, such as in the case of the Russian satellite striking Canada discussed below).[92] In any case, the difficulties associated with identifying ownership, and thus determining fault, can present significant hurdles for liability.

For context, imagine a scenario where a piece of debris, potentially orbiting for 30 or 40 years, smaller than $10cm^2$ and likely un-attributable to any specific spacefaring country, collides with and damages a satellite. The chances of determining fault against a particular country for the collision is incredibly low. Those who operate in space understand this reality. Thus, satellite owners have insurance to cover loss since, in most scenarios of damage, no responsible party will ever be determined. Thus, from the perspective of the debris creator, the risk-benefit analysis weighs in favor of taking the risks of creating space debris over incurring the expense of trying to prevent it. Furthermore, even were damage to occur, say on Earth, the evidence indicates that the costs would be minimal. This was apparent in one of the only cases of liability being assessed against a country for a spacecraft accident on Earth. The incident involved a satellite owned by the Union of Soviet Socialist Republics (USSR) which crashed in Canada in 1978. In that case, "on 24 January 1978, COSMOS 954, a Soviet nuclear-powered surveillance satellite, crashed in the Northwest Territories. The crash scattered a large amount of radioactivity over a 124,000 square kilometer area in Canada's north, stretching southward from Great Slave Lake into northern Alberta and Saskatchewan."[93] On April 2, 1981, a Protocol was signed between Canada

[91] *See* Liability Convention, *supra* note 45.

[92] *U.N. Treaties and Principles*, *supra* note 65, at 14.

[93] *See generally Cosmos 954 Accident*, Health Canada, http://www.hc-sc.gc.ca/hc-ps/ed-ud/fedplan/cosmos_954-eng.php (last updated Jun. 2008).

and the USSR wherein the USSR agreed to pay to Canada for damages caused by COSMOS 954 when it crashed.[94] Even so, the sum recovered for an incident involving the spread of nuclear waste over 124,000 kilometers of Canadian land was only $3 million Canadian.[95] Considering that this is the only case on record where an amount has been recovered for this kind of damage, the surprisingly low financial amount would indicate that even if a state is held accountable, the degree of financial liability is likely to be extremely low.

Beyond the low probability of liability being assessed, there are additional factors underlying political disinterest in debris mitigation. First, current mitigation efforts are voluntary, and the prevailing political tone indicates a resistance to hamper future "unknown" efforts by signing a treaty. For example, the report of UN COPUOS in its 57th session from June 11-20, 2014 noted that there was concern by some delegations who "expressed the view that the issue of space debris should be addressed in a manner that would not jeopardize the development of the space capabilities of developing countries."[96] Even more detrimental appears to be the underlying concern of countries that appeared earlier in 2012 in the report of the STSC during its 49th session in Vienna. Many member states expressed their cynicism of current debris mitigation rules because "the consideration of the long-term sustainability of outer space activities should not be used as a pretext for States that had been able to develop their space capabilities without control, resulting in the challenges faced today, to restrict or impose controls on other States wishing to exercise their legitimate right to use the same technology for their national benefit."[97] Even major spacefaring nations have not been above pursuing national interest over international consensus, adhering only to individual state codes of conduct that suit state interests. As Steven Hildreth of the Congressional Research Service concluded in his analysis of Congress' willingness to sign on to the codes of conduct of other countries (in that case, specifically the European Union's proposed code of conduct to the

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[94] *See generally* Kunihiko Tatsuzawa*, Space Law*, JAXA, http://www.jaxa.jp/library/space_law/chapter_3/3-2-2-1_e.html (last visited Mar. 1, 2016).

[95] *Id.*

[96] Rep. on the Fifty-seventh session, *supra* note 90, at 17.

[97] Comm. on the Peaceful Uses of Outer Space, Rep. of the Sci. and Tech. Subcomm. on its Forty-Ninth Session, held in Vienna from Feb. 6 to Feb. 17, 2012, at 30, U.N. Doc. A/AC.105/1001 (Feb 28, 2012), http://www.unoosa.org/pdf/reports/ac105/AC105_1001E.pdf.

United Nations[98]), politically it "may not be in the national security interest of the United States."[99] Similarly, according to Ellen Tauscher, United States Undersecretary of State for Arms Control and International Security, when discussing the European Space Agency (ESA) proposal, "It's been clear from the very beginning that we're not going along with the European code of conduct. It's too restrictive."[100] Other space-faring and emerging space-faring states share similar concerns. Among them, China, India, South Africa and Brazil have collectively and individually expressed a series of other concerns with proposed codes of conduct. Among the concerns are that the proposed drafts were created without their participation, the proposals lack a legally binding mechanism, most provisions are already reflected in other domestic law or bilateral/multilateral agreements, countries (in particular China) have more power over other space-faring countries without formal agreements and signing a formal agreement would diminish their influence, and lastly, agreeing to limit the amount of space debris creation from space activities could be a limitation on the ability of countries to engage in some space-faring activities because the necessity of debris creation could prohibit launching some objects into space under newly signed agreements.[101] Collectively, this creates a very resistant environment for proposed agreements. Instead, sates are turning to the creation of their own "codes of conduct" developed regionally or nationally that better address the perceived needs and concerns of spacefaring countries. But it is inevitable that a continued policy of "going one's own way" will severely hamper initiatives to achieve a collective agreement.

What is more, this general hesitation to address the issue of debris internationally is leading to a "tragedy of the commons." This is a general

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[98] According to the European Union, the purpose of the code is to enhance the safety, security, and sustainability of activities in outer space. *International Code of Conduct for Outer Space Activities*, European Union External Action, March 31, 2014. https://eeas.europa.eu/sites/eeas/files/space_code_conduct_draft_vers_31-march-2014_en.pdf (last visited Apr. 15, 2017). Development by the European Union began in 2007, with a draft released in 2008, in response to a call by the United Nations Secretary General for proposals to address issues arising in space. *Id.*

[99] See *generally* Hildreth & Arnold, *supra* note 4

[100] Mike Wall, *U.S. Joins Effort to Create Code of Conduct for Space*, Space.com (Jan. 17, 2012, 6:42 PM) http://www.space.com/14271-space-code-conduct-space-debris.html.

[101] Michael Listner, *Geopolitical Challenges to Implementing the Code of Conduct for Outer Space Activities*, E-Internationalrelations (June 26, 2012), http://www.e-ir.info/2012/06/26/geopolitical-challenges-to-implementing-the-code-of-conduct-for-outer-space-activities/.

theory that refers to the sustainability of a shared resource when no one individual or group is responsible for ownership over it. Coined in 1968 by Garrett Hardin,[102] the theory is as follows:

> The tragedy of the commons [re]appears in problems of pollution. Here it is not a question of taking something out of the commons, but of putting something in—sewage, or chemical, radioactive, and heat wastes into water; noxious and dangerous fumes into the air, and distracting and unpleasant advertising signs into the line of sight. The calculations of utility are much the same as before. The rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them. Since this is true for everyone, we are locked

[102] While the phrase "tragedy of the commons" was coined by Garrett Hardin, it is important to note that the concept of the tragedy of the commons as a theory is credited to a development from an earlier concept proposed by William Forster Lloyd (1833), in which he proposed a theory in his lecture "Two Lectures on the Checks to Population" where he stated that "[i]f a person puts more cattle into his own field, the amount of the subsistence which they consume is all deducted from that which was at the command, of his original stock; and if, before, there was no more than a sufficiency of pasture he reaps no benefit from the additional cattle, what is gained in one way being lost in another. But if he puts more cattle on a common, the food which they consume forms a deduction which is shared between all the cattle, as well that of others as his own, in proportion to their number, and only a small part is taken from his own cattle. In an enclosed pasture, there is a point of saturation, if I may so call it (by which, I mean a barrier depending on considerations of interest,) beyond which no prudent man will add to his stock. In a common, also, there is in like manner a point of saturation. But the position of the point in two cases is obviously different. Were a number of adjoining pastures, already fully stocked, to be at once thrown open, and converted into one vast common, the position of the point of saturation would immediately be changed. The stock would be increased, and would be made to press much more forcibly against the means of subsistence." W.F. Lloyd, Two lectures on the Checks to Population, speech delivered before the University of Oxford in Michaelmas Term 1832, at 31-32. The coinage of the "tragedy of commons" was the extension of the William Lloyds earlier work, where Garrett Hardin, in developing the concept, put in the simplest terms using the same cattle theory as Lloyd that when all are free to do as they please in an area of limited resources, inevitably the resources will be misused if all pursue their own best interest in a society that believes in the freedom of the consumptions of that same resource. Garrett Hardin, *The Tragedy of the Commons*, Science Magazine 1243 (Dec. 13, 1968), http://science.sciencemag.org/content/162/3859/1243.full. The freedom of the use of the commons brings ruin to all. This is true in space, where all are free to use it, but individual interests are creating a situation where, upon reaching a tipping point of use, creation of debris will bring ruin to all.

into a system of "fouling our own nest," so long as we behave only as independent, rational, free-enterprisers.[103]

This could not be more true in the space environment: used by many, owned by none, and increasingly cluttered, its use is threatened by limited accountability and little incentive to pursue collective governance.

As stated before, political resistance from large spacefaring nations is expressed externally as a concern for national security. Smaller or not yet capable spacefaring nations are equally resistant to any international regime for fear of hindering their own ability to launch into space because they might not be able to comply with an international regulatory scheme. Last, the status quo currently remains cheaper to the rational state. The result is that whether an international agreement is reached or not, the competing interests present significant challenges to gaining international consensus. Thus, the likelihood of a tragedy of the commons increases with every new entry into the spacefaring community.

Acknowledging the lack of international consensus, the only viable alternative is for one or more countries to take the lead and force the issue of debris removal by acting unilaterally. Not only is such action necessary, but, as I argue below, it is technically feasible and legally permissible.

V. What is Active Debris Removal?

Active Debris Removal (ADR) is defined as the "means to remove objects from orbit above and beyond the currently-adopted mitigation measures."[104] ADR is acknowledged to be economically, technologically, and legally challenging. It comes in many forms and proposals and depends on a variety of factors, such as the size of the debris, the location of the debris, and the potential functionality of the debris. ADR can also take the form of OOS (discussed earlier) such that what was once technically non-functioning debris could be serviced back to functionality, thus actively removing it from classification as debris.

Among the methods of ADR being discussed, there are nuances depending on the orbit where items are being proposed for removal, such as

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[103] Hardin, *supra* note 102, at 1243.

[104] J.-C. Liou, *A Parametric Study on Using Active Debris Removal for LEO Environmental Remediation*, 47 Advances in Space Res. 1865, 1865 (2011).

LEO, MEO and GEO. As well, much of the modelling focuses on the size of the objects being removed, especially the larger pieces. ADR proposals primarily focus on these larger pieces, and include proposals for the use of vehicles that can capture dangerous objects (of a size equal to or greater than $10cm^2$) and either hurtle them into the atmosphere for destruction or return them to Earth. This is certainly important since, according to Dr. J.-C Liou, Chief Scientist for NASA, "99% of the mass in orbit comes from objects in [the $10cm^2$ or larger] regime."[105] At the same time, the threat from debris of that size is arguably less than pieces smaller than $10cm^2$ specifically because these larger pieces can be tracked.[106] Regardless, among the ADR proposals, there are a number of creative ideas in various stages of development, such

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[105] *Id.* at 1866.

[106] *USSTRATCOM Space Control and Space Surveillance*, U.S. Strategic Command, http://www.stratcom.mil/Media/Factsheets/Factsheet-View/Article/976414/usstratcom-space-control-and-space-surveillance/ (last updated Jan. 2014). One facet of the tracking of space objects is conducted by United States Strategic Command (USSTRATCOM), in particular the Joint Functional Component Command for Space (JFCC Space), through the Joint Space Operations Center (JSpOC), which is responsible for detecting, tracking, and identifying all artificial objects in Earth orbit. *Id.* JSpOC accomplishes this tracking through, among other things, tasking the Space Surveillance Network (SSN), which is a worldwide network of 30 space surveillance sensors, both military and civilian, to observe space objects. *Id.* JSpOC then catalogs and updates position and velocity for each piece, which is collected into the compendium Satellite Catalog. *Id.* Other countries have similar tracking systems in place or in development, though not necessarily on a global scale. *See generally Scanning and Observing*, European Space Agency, http://www.esa.int/Our_Activities/Operations/Space_Debris/Scanning_observing (last updated Apr. 20, 2013). For example, the European Space Agency collaborates with the German Tracking and Imaging Radar (TIRA) to track space debris. *See also* Jeffrey Lin & P.W. Singer, *China Showcases Plans to Become the Leading Space Power*, Popular Science (June 18, 2015), http://www.popsci.com/china-show-cases-space-plans. China, while lacking a fully operational space debris tracking system, is currently developing a Space Debris Monitoring and Application Center, which will focus on space debris, particularly in having the capability to track pieces 1 square centimeter or smaller. *Id.* Future efforts in space include the United States Air Force Space Fence. *See generally Space Fence: How to Keep Space Safe*, Lockheed Martin, http://www.lockheedmartin.com/us/products/space-fence.html (last visited Feb. 27, 2016). This is a developmental program that will use S-band ground based radars to better detect smaller objects than are currently being tracked; evidence indicates as low as $2cm^2$. *Id.* However, even at this size, it increases the ability to possibly avoid them, but still does not cover all the sizes which can have catastrophic results to satellites and space objects. *Id. See also Space Fence (AFSSS S-Band)*, Globalsecurity.org, http://www.globalsecurity.org/space/systems/space-fence.htm (last updated Oct. 22, 2015); *Don't Touch Their Junk; USAF's SSA Tracking Space Debris*, Defense Industry Daily (Sept. 30, 2015 7:18 PM), http://www.defenseindustrydaily.com/air-force-awards-first-phase-of-next-generation-space-fence-05511/.

as the Catcher's Mitt, solar sails, the Japanese electrodynamic tether (EDT), and the Swiss proposed CleanSpace One[107] satellite.

The Catcher's Mitt is a proposal that would place a low density material in an equatorial orbit to sweep out near-Earth space between approximately 400km and 1100km where, as discussed, much of the debris threatening current space operations resides.[108] In practice, objects would either become trapped by the "mitt" or, in passing through the mitt, would be slowed to the point of decelerating them into the atmosphere.[109] The Japanese EDT proposal involves deploying a 1,000 foot electrodynamic tether in orbit that will generate electricity having the effect of causing nearby debris to slow down.[110] The resulting deceleration will create enough friction to cause the material to fall into lower and lower orbits until re-entering and burning up in Earth's atmosphere.[111] A similar proposal incorporates plans for a "solar-sail," for which there are a number of variants. One variant suggests deploying a very large solar sail which uses solar photon pressure to "push" space junk toward the atmosphere.[112] Another suggests a solar sail with a combination tether which would envelop debris, generally as large as possible to maximize the value of using such a device. Once enveloped, the attached tethers, much like the Japanese proposal, would then cause drag, lowering the orbit of the debris until reaching the Earth's atmosphere and burning up.[113] CleanSpace One is a proposal announced by the Swiss to build a spacecraft that could capture orbital debris and carry it back towards Earth until it burns up in the atmosphere. While still in the development stages, Swiss scientists originally believed that they could create a device to grab larger targets with a robotic

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[107] Ben Coxworth, *EPFL's CleanSpace One satellite will "eat" space junk*, GIZMAG.COM (July 7, 2015), http://www.gizmag.com/cleanspace-one-orbital-debris-satellite/38348/. *See also A giant Pac-Man to gobble up space debris,* PHYS.ORG (July 6, 2015), http://phys.org/news/2015-07-giant-pac-man-gobble-space-debris.html.

[108] Claude Phipps, *"Catchers Mitt" as an Alternative to laser Space Debris Mitigation*, 1278 AMERICAN INST. PHYSICS CONF. PROC. 509, 509 (2010).

[109] *Id.*

[110] Miriam Kramer, *Japan to Test Space Junk Cleanup Tether Soon: Report*, SPACE.COM (Jan. 17, 2014 6:30 AM), http://www.space.com/24325-japan-space-junk-tether.html.

[111] *Id.*

[112] Darren McKnight, *Pay Me Now or Pay Me More Later: Start the Development of Active Orbital Debris Removal Now* 10-11, http://www.amostech.com/TechnicalPapers/2010/Posters/McKnight.pdf (Last visited Apr. 15, 2016).

[113] LOURENS VISAGIE & THEODOROS THEODOROU, HYBRID SOLAR SAILS FOR ACTIVE DEBRIS REMOVAL 5 (2011).

arm and force them back to Earth.[114] This caused some logistical challenges, and so the current CleanSpace One model envisions using a folding conical net to collect up bits of space garbage. The first CleanSpace One mission proposes to remove the Swiss government's own now defunct SwissCube satellite.[115] It is also worth noting that there are a number of companies focused on efforts toward removing larger debris which will address future *Kessler* concerns. Among the most promising is the efforts led by a Singapore-based company called Astroscale.[116] Their ADRAS 1 satellite system will attempt to remediate the problem of mid-to-large orbital debris such as abandoned rocket upper stage bodies and decommissioned satellites.[117] Generally, it will have the capability to approach and capture malfunctioned or decommissioned satellites and rocket bodies, then de-orbit them into atmospheric decay.[118] Like other proposals, however, this incredibly useful system is still hindered by the international legal implications of consent and is therefore currently forced to limit its range of options to the "consent-based" business model.

Efforts against smaller debris (smaller than10cm^2) also prompts considerable discussion. While much smaller than large satellites and stage rockets, their sheer volume, difficulty to track, and capability to render inert many large operating satellites makes them a great concern. Conceptually, Dr. Liou put it in perspective stating that:

> The populations below 10 cm roughly follow a power-law size distribution – meaning there are far more smaller debris than larger ones. This means that the main mission-ending threat for operational S/Cs [spacecraft] in the environment comes from the debris just above the threshold of the vehicle's impact protection shields. Since S/Cs all have different configurations and shielding designs, the 'critical debris size' varies from S/C to S/C. For most operational S/C, any impact by

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[114] See *generally* Tim Hornyak, *Can this 'janitor satellite' clean up space junk?*, CNET.COM (Feb. 15, 2012 1:32 PM), http://www.cnet.com/news/can-this-janitor-satellite-clean-up-space-junk/.

[115] *See* Coxworth, *supra* note 107.

[116] Astroscale, *ADRAS 1 End of Life Services*, http://astroscale.com/services/adras-1 (last visited March 27. 2017).

[117] *Id.*

[118] *Id.*

> debris between 5mm and 1cm^2 is likely to cause mission-end damage.[119]

For example, the International Space Station, equipped with the best impact protection in history, can only withstand the hypervelocity impact of debris 1.4cm^2 or smaller.[120] As a result, among the leading contenders to address this problem, ground-based lasers seem to have the greatest likelihood of success. These lasers would not destroy the smaller objects, but instead would "use pressure from photons or vaporize a small amount of material [of the object] to 'bump' the objects slowly over time into orbits where reentry can occur much earlier than within their existing orbits."[121]

All efforts toward removal of large and small space debris have been accused of being difficult, costly, and technologically nascent by today's standards. However, just as important as the costs and technological challenges is the legal concerns that will arise from ADR. The primary legal issue is ownership and consent based on that ownership. For many of the proposals, such as OOS, consent would be "par for the course" such that no one would provide OOS to satellites absent consent. Otherwise, they would be unlikely to receive fees for services rendered nor would they likely be able to gain the technological and informational capability needed to accurately rendezvous and connect with a satellite belonging to another party. Other proposals, such as that of CleanSpace One, avoid the issue of consent by removing only their own space debris. Other technologies, such as those that use a net, are, by their very nature, less discriminate, capturing or slowing to the point of destruction anything that comes along their path. Such technologies implicate the prescient legal issues surrounding non-consensual removal.

Some concerns over non-consensual removal may be alleviated based on the method in which the debris is removed. For example, assume a state makes a claim of ownership over a small piece of debris to be removed. It is likely that a state would be less resistant to the non-consensual use of an

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[119] J.-C. Liou, *Engineering and Technology Challenges for Active Debris Removal*, 4 Eur. Conf. Aerospace Sci. 1, 3-4 (2011), http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20110013011.pdf.

[120] *Id.* at 5 (citing James Hyde et. al., *Micrometeoroid and Orbital Debris Integrated Threat Mitigation Techniques for the Space Shuttle Orbiter Assessment*, IAC-08-A6.3.1 (2009)).

[121] Marlon E. Sorge and Glenn E. Peterson, *How to Clean Space: Disposal and Active Debris Removal*, Aerospace.org (Dec. 10, 2015), http://www.aerospace.org/crosslinkmag/fall-2015/how-to-clean-space-disposal-and-active-debris-removal/.

ADR technology that ensures destruction, vice an ADR technology designed to capture debris. This ties directly into some current ADR proposals, such as the "Catcher's mitt," which would slow the material for destruction versus capture.

Regardless of the technology employed, however, consent will remain at the forefront of legal challenges to overcome in the development and employment of ADR tools and must be addressed. The primary argument against ADR goes generally as follows: the jurisdiction and control of a space object is determined by the state that registered it. There is currently no method to transfer registration. Space debris is not internationally accepted as distinct from space objects. Space objects are owned in perpetuity. The result is that removal of space debris is legally equivalent to the removal of a space object, which requires the permission (read consent) of the owning state.

The proposals for many of the ADR techniques assume consent or removal by the space object owner. The problem with attempting to obtain consent for debris smaller than $10cm^2$ is obvious—in most cases, ownership cannot be determined. Compounding the problem is that there are no established rules for removal of a space object that has no known registering state (or registry itself). What then? Under that scenario, it is not that the debris is not "owned," but that an owner is indeterminate. Future technologies may enable us to identify smaller debris particles to points of origin (original owners), but that does not help mitigate today's threat. The result? Danger without remedy. This is an untenable situation and one that may require unilateral action. Fortunately, there is precedent for doing so.

VI. Precedent for Taking Action

At the outset, this paper proposed that States would be justified in removing space debris smaller than $10cm^2$ without consent, and that there is legal precedent for doing so. The way to make this a reality is for an evolution in the law relating to space debris removal to occur, which rests in adopting a "modern" trend that will allow for the establishment of customary international law more quickly than historically recognized; i.e. "instant" customary international law. In fact, instant customary international law is a concept that, paradoxically, has been developing over a long period of time. However, given that is has its roots in traditional customary international law, an analysis of the concept must begin there.

Generally, customary international law is law established by acceptance of a general practice by a group of countries often in the absence of written law.[122] Customary international law itself is not treaty-based, though it can develop into more formal understandings via treaties and other codifications, judicial rulings, and resolutions.[123] At the same time, it acts comparably with added advantages. It is a very powerful tool to effectively establish rules absent the onerous, time consuming obligations of treaty creation. What is more, often treaties reflect a "lowest common denominator"[124] approach, thus occasionally making them more symbolic than actually effective and unambiguous.[125] It is not to say that a tangible written document such as a treaty is not among the most powerful international tools, but customary international law can similarly reflect a meeting of the minds in much less time than some traditional treaty processes have taken to achieve the same result. What is more, unless acting as a persistent objector from the beginning of the first signs that customary international law is forming, states are expected to act according to the norm whether they like it or not.[126] This applies similarly to

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[122] *Statute of the Court*, International Court of Justice, art. 38(1)(b), http://www.icj-cij.org/documents/?p1=4&p2=2 (last visited March 29, 2017).

[123] *See generally* Michael P. Scharf, *Accelerated Formation of Customary International Law*, 20 ILSA J. Int'l & Comp. L. 305, 318-329 (2014).

[124] Chatterjee, *supra* note 47, at 5 (citing Nicolas Mateesco Matte, *Outer Space Treaty*, 3 Encyclopedia of Public International Law 836, 838 (R. Bernhardt, ed., 1992)).

[125] Scharf, *supra* note 123, at 310 (citing H.L.A. Hart, The Concept of Law 130 (1961) (referring to the possibility of ambiguity as the "penumbra of uncertainty resulting from the differences in cultures as they come together to form treaties, including different languages cultural beliefs, legal beliefs, and political divides")).

[126] Int'l Law Assoc., London Conference (2000), Statement of Principles Applicable to the Formation of General Customary International Law 27 (2000), http://www.ila-hq.org/en/committees/index.cfm/cid/30. This refers to the rule commonly called the "persistent objector" rule. *Id.* According to the ILA, the persistent objector rule generally states that if a State disagrees and overtly fails to both indicate and act in accordance with a rule during its formation and after, and therefore "manifest their dissent, the requisite [consent/formation] condition is not fulfilled." *Id.* Therefore, the customary rule as it is established cannot be applied to that State. See *also* Scharf, *supra* note 123, at 317-318. Scharf provides several good examples of recognition by the International Court of Justice of the persistent objector rule. *Id.* In the *Asylum Case*, Judgment, 1950 I.C.J. No. 7, at 276-278 (Nov. 20), the ICJ recognized Peru's adamant stance against a rule conceded by other Latin American States. *Id.* Also, in *Fisheries Jurisdiction Case*, Judgment, (1951 I.C.J. No. 55, at 131 (Feb 1973)), the ICJ recognized persistent objector status by Norway against a claim by the United Kingdom that there was an international customary law limiting closing lines in bays to a length of ten miles. *Id.* Scharf also recognizes the limits mentioned that recognition hinders on objection from inception to the rule (not just when it then suits) and also binding on new states since there is no "subsequent objector" rule available (citing Maurice H. Mendelson, *Formation of*

new states. As some countries have broken into two or more, declared their independence from other States, or acted in a first instance to a previously established field, they are considered to be bound by the existing international customary laws in place at the time. There is no ability to "opt-out" like they might with a treaty since the law is as it is at the moment that the state is "born" and it is bound by them.[127]

Though customary law is historically established over a very long time, the impact of its creation cannot be understated. It is sometimes unwritten and unsigned, but carries the same force as though it were. There are two main elements that comprise establishing customary law: a subjective element and an objective element.[128] Under the guiding articles of the International Court of Justice, the development of these two elements began with the predecessor to the International Court of Justice, the Permanent Court of International Justice (PCIJ) in the 1929 *S.S. Lotus case*.[129] This case first

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Customary International Law, in 272 Recueil Des Cours 159, 227-244 (1998).

[127] Int'l Law Assoc., London Conference (2000), Statement of Principles Applicable to the Formation of General Customary International Law 27 (2000), http://www.ila-hq.org/en/committees/index.cfm/cid/30. According to the ILA, "there is widespread agreement that, even if there is a persistent objector rule in international law, it applies only when the customary rule is in the process of emerging. *Id.* It does not, therefore, benefit States which came into existence only after the rule matured, or which became involved in the activity in question only at a later stage. *Id.* Still less can it be invoked by those who existed at the time and were already engaged in the activity which is the subject of the rule, but failed to object at that stage. *Id.* In other words, there is no "subsequent objector" rule. *Id.* The rule, if it exists, is available only for those who object before the rule has fully emerged." *Id.*

[128] Bin Cheng, *United Nations Resolutions on Outer Space: "Instant" International Customary Law?*, 5 Indian J. Int'l L. 23, 35 (1965). Professor Cheng explained the two elements further stating that "[t]he orthodox view is that a rule of customary law has two constitutive elements: *(i) corpus*, the material or objective element, and *(ii) animus*, the psychological or subjective element. The *corpus* of a rule of customary law is the existence of a usage (*consuetudo*) embodying a rule of conduct. The *anuimus* consists in the conviction on the part of States that the rule embodies in the usage is binding (*opinio juris*)."

[129] S.S. Lotus (Fr. v. Turk.), Judgment, 1927 P.C.I.J. No. 9, at 18 (Sept. 7). This case was borne out of a collision of two ships, one belonging to France (the *S.S. Lotus* mail ship) and another to Turkey (the S.S. *Boz-Kourt*). *Id.* The *Boz-Kourt* was struck and sunk, and eight Turkish nationals were killed. *Id.* Based on the later actions of Turkey, the opportunity for the PCIJ arose to determine if Turkey was in violation of international law. *Id.* The court indicated it could only be so were Turkey to show that there was a rule of customary international law which elaborated on the existing international law. *Id.* In the discussion, the court said of international law that it "governs relations between independent States. *Id.* The rules of law binding upon States therefore emanates from

established that international law was either reflected in expressed rules or those generally accepted as principles of law.[130] Later, the International Court of Justice in the *North Sea Continental Shelf Case*[131] discussed that, objectively, "the acts concerned [must] amount to a settled practice, [and] they must also be such, or be carried out in such a way, as to be evidence of a belief that this practice is rendered obligatory by the existing of a rule of law requiring it."[132] Thus, the Court went on to say that States must feel they are acting in a way that essentially mirrors a way they would act were a law specifically written. This means there is a widespread and consistent State practice, such that at least some member states of the international community act as though a behavior is a law, even if not specified, and therefore has the effect of making it law for all purposes. Second, there must be the "*opinio juris,*" or the subjective element, generally meaning that there must be an understanding by states that, whether the rule at issue is written or not, states are obligated to follow a behavior.[133] States can manifest their agreement to be bound by a rule in a number of recognized ways, such as in the legislative body of work of a state, diplomatic statements consistent with the customary law, political statements indicating an adherence or recognition of the law, or simply acting accordingly.[134] In sum, to establish Customary International Law, the international court has established the two prong test that "there must be a widespread and uniform practice of nations, and nations must engage in the practice out of a sense of legal obligation."[135]

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their own free will as expressed in conventions or by usages generally accepted as expressing principles of law and established to regulate the relations between these co-existing independent communities or with a view to the achievement of common aims. *Id.* Restrictions upon the independence of States cannot therefore be presumed." *Id.*

[130] Scharf *supra* note 123, at 311 (citing S.S. Lotus, *supra* note 129 at 18).

[131] North Sea Continental Shelf (Ger. v. Den. & Ger. v. Neth.), Judgment, 1969 I.C.J. Nos. 51 & 52 (Feb. 20). In 1967, the issue of the proper apportionment of the continental shelf extending from a country and the delineation with others came to a head in the International Court of Justice between the Federal Republic of Germany and Denmark, and concurrently between the Federal Republic of Germany and the Netherlands.

[132] *Id* at 45.

[133] *Id.*

[134] Nie Jingjing & Yang Hui, *Revisit the Concept of International Custom in International Space Law,* Proceedings of the International Institute of Space Law 348, 348-356 (Corinne M. Jorgenson ed., 2013).

[135] Jack L. Goldsmith & Eric A. Posner, *A Theory of Customary International Law* 5 (The John M. Olin Law and Economics Working Paper No. 63 (2d Series), 1998), http://www.law.uchicago.edu/files/files/63.Goldsmith-Posner.pdf.

Collectively, where these two elements exist in the same case, the ICJ would consider states to be bound, minus those who had held themselves out from the beginning as persistent objectors.[136] Because of the importance and the impact development of such laws would have, it was generally considered that their establishment should form at almost a glacial pace. Dean Michael Scharf of Case Western Law School noted that there has been much dispute over how long was required to develop customary international law.[137] The U.S. Supreme Court weighed in on its interpretation of the timing for formation as "decades or even centuries" which was not much of a departure from the International Law Commission's expectation that it develop "over a considerable period of time."[138] Others, according to Dean Scharf, such as the United Kingdom and France, have set specific expectations at 40 years and 30 years respectively.[139] The takeaway is simply that while there is a general consensus that there must be an objective and subjective element, the length of time it takes to form customary international law remains a point of debate.

In recent years it has been proposed that development of customary international law need not be developed by actions over extended periods of time. Modern arguments assert that customary international law can be developed almost instantaneously based on an action and resulting acquiescence by some, especially those most affected, if not all of the international community. Dean Scharf calls those who are "first" to test the waters by taking action which might develop into customary international law as "custom pioneers."[140] Though not exact analogies, Dean Scharf examined the proposals of Professor Myers McDougle of Yale Law School and Professor Anthony D'Amato of Northwestern University as they related to the inception of instant customary law. Professor McDougle posited an approach called "continuous claim and response."[141] In such a system, one state acts upon another, and then analyzes the response of the state acted upon. If favorable,

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[136] Scharf *supra* note 123, at 309 (citing Int'l Law Assoc. London Conference *supra* note 126, at 27).

[137] *See generally* Michael P. Scharf, Customary International Law in Times of Fundamental Change: Recognizing Grotian Moments (2013).

[138] *Id.* at 306 (citing Manley O. Hudson, *Article 24 of the Statute of the International Law Commission*, U.N. Doc. A/CN.4/16 (1950), *reprinted in* [1950] 2 Y.B. Int'l L. Comm'n 24.

[139] *See generally* Scharf, *supra* note 137.

[140] Scharf *supra* note 123, at 313.

[141] See *generally* Scharf, *supra* note 137, at 306 (citing M.S. McDougal & N.A. Schlei, *The Hydrogen Bomb Tests in Perspective: Lawful Measures for Security*, 64 Yale L.J. 648 (1955).

the development of customary international law begins, especially if other states either passively or actively indicate concurrence with the behavior.[142] As Dean Scharf puts it, this is a backward-looking formulation, relying on jumping in to test if the water is hot or cold and determining the answer once in the water.[143] In contrast, Professor D'Amato proposes what is called an "articulation and act" test.[144] In this formulation, the test is somewhat opposite, akin to a state indicating that it intends to jump in the water, and either following up by doing so or asking the affected state how it would respond. This can take the form of a draft instrument, a broad statement in the U.N. General Assembly, or some other articulation of a proposed course of intended action. This approach has been called the "modern custom" since it reflects a more forward-looking approach.[145] The articulation is intended to produce a response for which the initiating State can then gauge the acceptability of or receptiveness to the act.

A demonstration of Dean Scharf's continuous claim and response theory, and one of the first clear indicators of the occurrence of "instant" customary international law, was initiated by U.S. President Harry S. Truman. On September 28, 1945, President Truman set forth the following Proclamation:

> I, Harry S. Truman, President of the United States of America, do hereby proclaim the following policy of the United States of America with respect to the natural resources of the subsoil and sea bed of the continental shelf. Having concern for the urgency of considering and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coast of the United Sates as appertaining to the United States, subject to its jurisdiction and control. In cases where the continental shelf extents to the shores of another State, or is shared with an adjacent State, the boundary shall be determined by the United States and the State concerned in accordance with equitable principles. The character as high seas of the waters above the

[142] See *generally* Scharf *supra* note 123.

[143] Scharf *supra* note 123, at 314.

[144] *Id.*

[145] *Id.*

> continental shelf and the right to their free and unimpeded navigation are in no way thus affected.[146]

The lead up to the Proclamation was anything but instant. Prior to the Law of the Sea Conventions of 1958, maritime law had been largely governed by custom with a few small agreements between a minority of countries. Since Roman times, the sea was considered "*res communis,"* belonging to everyone, but not to be owned by anyone.[147] This approach would be challenged through the centuries, some arguing for a much more controlled and owned environment, while others argued the contrary.[148] In 1608 the Dutch Statesman and Scholar Hugo Grotius made a convincing argument for the position that ownership of the seas was inappropriate, and that there should be the free use of the seas by everyone.[149] Scholarship of Hugo Grotius would come to epitomize the "freedom of the seas" philosophy, which deemed the oceans to be an "infinite resource, and that anyone could exploit them, or use for travel and transport….outside a 'territorial' sea of about 3 nautical miles from land."[150] This would be generally accepted as the custom through the early 1900's, with countries exerting control over waters adjoining their coasts. The 3-mile rule would eventually evolve to reflect a more "war-like" approach, limited to reflect not just a 3-mile rule, but also reflective of the "distance that a cannon could shoot from shore."[151] This distance remained a "rule of thumb" and while some states treated it differently, the general rule persisted, limiting control to some variance of relative proximity to shoreline through the early 1900s.[152]

Because of this history, when President Truman issued his Proclamation, it clearly went against well-established custom. However, it was acceptable to other countries because it was not without considerable benefit

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[146] Proclamation No. 2667, 10 Fed. Reg.12, 305 (Sept. 28, 1945), http://www.gc.noaa.gov/documents/gcil_proc_2667.pdf.

[147] Scharf, *supra* note 137, at 108 (citing Barry Buzan, Seabed Politics 2 (1976)).

[148] Scharf, *supra* note 137, at 108. Scharf discusses at length the challenges of Spain and Portugal claiming ownership, then the English and Dutch challenging their claims between the years 1493 and 1608.

[149] Scharf, *supra* note 137 (citing Hugo Grotius, The Freedom of the Seas (Ralph van Deman Magoffin trans.) (1916) (ebook).

[150] Bill Mansfield, *Law of the Seas,* Te Ara, http://www.teara.govt.nz/en/law-of-the-sea/page-1 (last updated Jun. 12, 2016).

[151] Scharf *supra* note 123 (citing James B. Morell, The Law of the Sea: An Historical Analysis of the 1982 Treaty and Its Rejection by the United States (2013).

[152] See *generally* Scharf, *supra* note 137, at 109.

to them as well, even if against the existing custom. Not only was it of obvious economic advantage to states, but in simplest terms the continental shelf was "an extension of the land mass to the coastal nation and thus naturally appurtenant to it."[153] The importance of couching this in logical terms revealed two notable key attributes. First, it made sense to other countries, and was advantageous to them in their own claims for resources and wealth that were beyond the customary 3 mile rule. Second, it was replicable by any state, such that it did not require any change or expense in operations to claim the additional land conjoined with their coasts. It simply "was."[154] This was a powerful advantage for countries, big and small, to be able to both replicate and benefit from an action without having to take on any additional responsibilities or obligations.

Thus, in what amounted to a page of text, President Truman demonstrated to the world the United States' resolve to act in a manner contrary to history and without international consent.[155] At the same time, it also demonstrated the ability to rapidly evolve customary international law in a way that both suited the United States and made sense for the rest of the world. It was not lost on history that the Proclamation received no opposition from any state.[156] Furthermore, many states quickly declared the Truman Proclamation to be valid and mirrored its premise. Hence, by 1950, 30 coastal states had enacted some declaration extending their territory past historical boundaries.[157] By 1950, scholars, including Sir Hersch Lauterpacht, concluded that the actions taken by the United States, and adopted by members of the international community, had the effect of establishing a virtually "instant"

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[153] SCHARF, *supra* note 137, at 114, referencing the preamble of Proclamation 2667.

[154] *See generally id*. at 114.

[155] Dean Scharf notes (referencing D.P. O'Connell, The International Law of the Sea, 31-2, n. 58, Oxford University Press, 1983) does note that while there was not a request for consent, the United States did attempt to set at least a basic groundwork with a few major States prior to issuing the Proclamation. SCHARF, *supra* note 137, at 115 (citing Martin I. Glassner, *The International Law of the Sea, by D. P. O'Connell*, Edited by I. A. Shearer, 9 Md. J. Int'l L. 279 (1985)). Scharf notes that there was 'behind the scenes diplomacy' that assisted in preventing most major countries from either feeling blindsided or outwardly objecting to the action by the United States. *Id.* In particular, Canada, Mexico, the United Kingdom and the Soviet Union all received some notification of the action, though it was made clear that the U.S. was not requesting any permission. *Id.* So, while it was still an act without consent, it was not, at least, without some advance notification to a handful of countries. *Id.*

[156] Scharf *supra* note 137, at 114 (citing BUZAN, *supra* note 147, at 8).

[157] *Id.* at 117 (citing Morell *supra* note 151, at 2).

customary international law.[158] By 1958, the Proclamation had taken up permanent roots in the 1958 Convention on the Continental Shelf. [159]

Possibly taking a note from President Truman's playbook, the Soviets would demonstrate a similar resolve to act as a "custom pioneer" when it launched Sputnik in 1957.[160] To fly over the airspace of another country carried a significant expectation to seek permission. But the Soviets neither asked for, nor received, such authority from any flyover country. Instead, the Soviets shocked the world by transiting over states in space and establishing the seeds of the space race. At the same time, this arguably established instant custom. Instead of states raising alarms at the act of the Soviets (other than the shock of the Soviet's ability to launch a satellite into orbit), within the following year the United States would do the exact same thing. As Judge Manfred Lachs of the International Court of Justice said:

> The first instruments that man sent into outer space traversed the airspace of States and circled above them in outer space, yet the launching States sought no permission, nor did the other States protest. This is how the freedom of movement into outer space, and in it, came to be established and recognized as law within a remarkably short period of time."[161]

This act in and of itself had the effect of immediately establishing freedom of movement in space as customary international law since it was immediately followed by others, and without notable objection. What is even more important, it happened literally overnight.

Not only by proclamation and action, but also by case law has the theory of instant customary international law been tested. In the *North Sea Continental Shelf Case*, discussed *supra*, the ICJ took specific note of President Truman's Proclamation. In doing so, the Court identified that there had long been various theories as to the rights that countries had over the conti-

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[158] *Id.* at 118 (citing Hersch Lauterpacht, *Sovereignty over Submarine Areas*, 27 Y.B. Int'l L. 376, 394 (1950).

[159] Convention on the Territorial Sea and the Contiguous Zone, 516 U.N.T.S. 205 (Apr. 29, 1958), http://www.gc.noaa.gov/documents/8_1_1958_territorial_sea.pdf.

[160] *Sputnik and the Dawn of the Space Age*, NASA, http://history.nasa.gov/sputnik/ (last updated Oct. 10, 2007).

[161] North Sea Continental Shelf, *supra* note 131, Dissenting Opinion of Judge Lachs [1969] ICJ Rep 3,230. See *also* Edward McWhinney, Judge Manfred Lachs and Judicial Law-Making, Opinions on the International Court of Justice, 1967-1993, 137 (1995).

nental shelves extending from their own land. However, the Court identified that the Truman Proclamation was the "starting point of the positive law on the subject, and the chief doctrine it enunciated…came to prevail over all others."[162] Thus, though many theories abounded for treatment of the continental shelf, President Truman's Proclamation, which was recognized as the starting point of positive law and later codified into a Convention, established new law. The court also addressed an increasingly important issue in the development of customary international law:

> With respect to the other elements usually regarded as necessary…it might be that, even without the passage of any considerable period of time, a very widespread and representative participation in the convention might suffice of itself….[163]

The Court further elaborated that:

> As regards the time element…although the passage of only a short period of time is not necessarily, or of itself, a bar to the formation of a new rule of customary international law on the basis of what was originally a purely convention rule, an indispensable requirement would be that within the period in question, short though it might be, State practice…should have occurred in such a way as to show a general recognition that a rule of law or legal obligation is involved.[164]

The Court therefore recognized that the time factor was not as controlling for customary international law as might have once been thought. Instead, while time was a valuable factor in cementing the law, it was not dispositive in establishing customary international law. Although the Court did not address the relevance or applicability of time in its analysis, it noted that the passage of time did "not constitute an obstacle to recognizing its principles and rules, including the equidistance rule, as part of general law."[165]

Thus, the seeds of instant customary international law are reflected in both convention and court decisions. Support for instant customary inter-

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[162] North Sea Continental Shelf, *supra* note 131 at 33-34, ¶ 47-48.

[163] *Id.* at 43, ¶ 73.

[164] *Id.* at 43, ¶ 74.

[165] McWhinney, *supra* note 161, at 137, referencing North Sea Continental Shelf, *supra* note 131, at 230.

national law is also bolstered by preeminent scholars in the area of space law. Professor Bin Cheng put forth what is among the most persuasive and commonly recognized academic arguments for the existence of instant customary international law. He began his analysis with an examination of the two space resolutions preceding the Outer Space Treaty; Resolution 1721 (XVI), *International Co-operation in the Peaceful Uses of Outer Space*[166] of December 20, 1961, and Resolution 1962 (XVIII), *Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space*[167] of December 13, 1963. In his analysis, Professor Cheng recognized the two-fold requirements of customary international law; the objective and subjective elements.[168] But while both were predicates to the normal development of customary international law, Professor Cheng did not see that they were both required in all cases. In particular, the prolonged time requirement historically stressed by courts and the requirement for action showing *opinio juris* needed the least adherence in the right circumstance.[169] He believed that "not only is it unnecessary that the usage should be prolonged, but there need also be no usage at all in the sense of repeated practice."[170] Instead, what was critical was the understanding of states. If states treated a custom as if it were law, then as between the countries with this established understanding, such customary law would exist between them.[171] If that is the case, if other nations acted accordingly upon awareness of such a rule, then the time factor would no longer be of paramount significance, if any.[172]

What is derived from the writings of Professor Cheng is that the ability to establish custom in almost real time depends upon the understanding of countries agreeing to be bound. If understanding is immediately struck, then no documents or actual practice is required to establish the custom. It exists, at a minimum, as a bilateral customary international law, instant or otherwise. If other countries then adhere to the same understanding, they too reach the same established customary international law by which they choose to be bound. It then follows that if either the predominance of those who have an interest agree, or if those who have an interest pose no objection, the custom

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166 G..A. Res. 1721 (XVI) (Dec. 20, 1961).

167 G..A. Res. 1962 (XVIII) (Dec. 13, 1963).

168 Cheng, *supra* note 128.

169 *Id.* at 36.

170 *Id.* at 35.

171 *Id.*

172 *Id.*

would bind all states as customary international law. Time, therefore, holds little prominence in the establishment of the custom.

More recently, others have emerged advocating recognition of the development of instant customary international law. In "*It's Instant Custom: How the Bush Doctrine Became Law After the Terrorist Attacks of September 11, 2001,*" Benjamin Langille persuasively argues that the behavior of the United Nations in response to President Bush's declaration against the terrorists of the World Trade center established customary international law within weeks, if not days.[173] The rapid chronology toward instant customary international law, Mr. Langille argues, began first with the declaration of President Bush that terrorists who committed the acts of 9/11 and anyone who harbors them will be considered one and the same.[174] Upon President Bush making that statement, there was no indication of dissent among the United Nations General Assembly Members. In fact, the General Assembly appeared to be in complete agreement. Thus, at that moment, Mr. Langille highlights that in accordance with the requirements of customary international law, both an objective State practice (or usage) and the *opinio juris* (that there is a sense of legal obligation by the state) existed at that moment. Shortly after, the United Nations General Assembly and the United Nations Security Council (UNSC) both adopted resolutions[175] (the UNSC being binding) on September 12, 2001. reflecting the position of President Bush and the United States.[176] But it was not the act of passing the resolutions that established the customary international law; those resolutions only serve as evidence that customary international law (instant) already existed and the legal obligations were merely being drafted in black and white.

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[173] Benjamin Langille, *It's "Instant Custom": How the Bush Doctrine Became Law After the Terrorist Attacks of September 11, 2001*, 26 B.C. Int'l & Comp. L. Rev. 145, 145-156 (2003).

[174] *Id.* at 153 (citing *Statement by the President in his Address to the Nat*ion, The White House (Sept. 11, 2001 8:30 PM), http://georgewbush-whitehouse.archives.gov/news/releases/2001/09/20010911-16.html.

[175] *Id.* at 145-156 (citing G.A. Res. 56/1 (Sept. 18, 2001) in which the body stated that it "also urgently calls for international cooperation to prevent and eradicate acts of terrorism, and stresses that those responsible for aiding, supporting or harbouring the perpetrators, organizers and sponsors of such acts will be held accountable." *See also* S.C. Res. 1368 (Sept. 12, 2001) in which the body stated that it "calls on all States to work together urgently to bring to justice the perpetrators, organizers and sponsors of these terrorist attacks and stresses that those responsible for aiding, supporting or harbouring the perpetrators, organizers and sponsors of these acts will be held accountable."

[176] Langille, *supra* note 173, at 153.

That being the case, regardless of the time historically discussed for establishing customary international law, that event demonstrated a situation where a position was taken by one country, was subsequently accepted by the General Assembly and UNSC, and followed up with action within days.[177] As Mr. Langille argues, and the chronology supports, customary international law was instantly (or nearly instantly) established. A counter-argument is that the resolution of the UNSC is the binding law, and that customary international law had no relevance since the resolution was codified. However, the speed at which the law was codified indicated that there was already unanimous agreement immediately upon the declaration by President Bush. Therefore, if only for a short time between his announcement and codification in the UNSC resolution, instant customary international law was established.

The notion of instant customary international law, particularly parsing out the time element, is not without critics. For example, Robert Jennings wrote that the modern interpretation of customary international law "is not only not customary law: it does not even faintly resemble a customary law."[178] The resistance to the development of instant customary international law is understandable, considering that the development of customs has historically been arduous and taken long periods of time. It is also fair to say that laws that develop over time and survive the test of time sometimes make for better law than those made quickly or in response to a significant event. However, this ignores the modern evolution of international operations and makes no room for recognizing that which is occurring regardless of resistance. As such, whether or not there is an opportunity for state practice to reinforce understandings between countries, the lack of such reinforcement does not undermine the understanding of the parties. Reinforcement serves only to do exactly that—reinforce.

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[177] *Id.* at 154-155. Langille makes note of the fact that within three weeks of the passage of the U.N. resolutions, 46 multilateral declarations of support had been signed from states including Great Britain, India, Russia, Pakistan, Japan, China, Australia, and South Korea and that these states also acted accordingly, such as Great Britain taking on an active military role, Pakistan allowing the safe passage of coalition forces and weapons through its airspace, and countries such as Saudi Arabia severing ties with the Taliban regime. All of this demonstrated that it was not mere acquiescence by the states in light of the statements made by President Bush, but in fact active involvement following the declaration by the United States. *Id.*

[178] *See generally* Niels Petersen, *Customary Law Without Custom? Rules, Principles and the Role of State Practice in International Norm Creation*, 23 Am. U. Int'l L. Rev. 275, 282 (citing Bin Cheng, International Law: Teaching and Practice (1982)).

It is worth considering that instant customary international law does not stand alone as the sole way for a state to justify unilateral action for the removal of space debris. There are principles that also bolster the argument and if necessary, can be conjoined to further embolden the position of a state to mount a fair defense against criticism.

The first is the Clean Hands Doctrine. To avoid the legal issues surrounding ADR for debris belonging to other countries, CleanSpace One plans to only deorbit its own out-of-commission nanosatellite.[179] However, irrespective of the care in which they attempt to do so, some additional debris may be deorbited as well, either in the effort to capture the satellite or to hurtle it toward the atmosphere. The question then, whether it occurs in 2018 or after, is what claims a country may have against the Swiss if the Swiss also capture material not belonging to them. Accepting at this moment that the technology for this type of ADR is currently nascent, with viable options still elusive for another few years, once that effort gets off the ground the ability of the law to catch-up will be exceptionally challenging. Therefore, the ADR actor is left to look at some additional precedent which may provide protection against claims.

This is where the clean hands doctrine can support limitations on liability. This doctrine proposes that "a party to a dispute is precluded from invoking another party's responsibility when the former has, in fact, been guilty of violating a reciprocal obligation."[180] While this doctrine has been used in various complaints, its influence and receptiveness in the international community and courts waxes and wanes depending on the case to which it is applied.[181] However, where the courts have been receptive is in cases where

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[179] Rob Coppinger, *Space Junk Cleanup Satellite Launching on Swiss Plane in 2018*, Space.com (Oct. 2, 2013 1:31 PM), http://www.space.com/23049-space-junk-satellite-swiss-space-plane.html.

[180] Ori Pomson and Yonatan Horowitz, *Humanitarian Intervention and the Clean Hands Doctrine in International Law*, 48 Isr. L. Rev 219, 228 (2015) (citing Quincy Wright, *The Goa Incident*, 56 Am. J. of Int'l L. 617, 628 (1962)).

[181] See *generally* Rahim Moloo, *A Comment on the Clean Hands Doctrine in International Law*, TDM 1 (2011), in which he notes that the international Court has not been receptive to the clean hands doctrine in all cases, such as diplomatic protection, but it has found safe harbor in several cases. The author discusses two cases considered extremely influential, the *Diversion of Water from Meuse (Neth. v. Belg.)*, Judgment, 1937 P.C.I.J (ser. A/B) No. 70, at 76-78 (June 28) and the *Military and Paramilitary Activities in and Against Nicaragua (Nicar. V. U.S.*), Judgment 1986 I.C.J. Rep. 15 (May 28) [hereinafter *Nicaragua*]. In both those cases, there was reference to wrongdoing by the complainants in the case prior to coming to the courts for relief.

there is a violation of a reciprocal obligation. Such was the situation in *Diversion of Water from the Meuse* case. In that case, the Netherlands and Belgians had agreed to a treaty in 1863 regarding the use of water from the Meuse River to ensure appropriate flow of water for navigation and irrigation.[182] When the Belgians, around 1925, began construction off parts of the canal in their territory, the Netherlands complained that the Belgians were in violation of the treaty since they were drawing more water than the Treaty provided for.[183] They sued in the PCIJ in 1925.[184] Belgium countersued, stating that the Netherlands had similarly been building feeders off of the Meuse river.[185] In dismissing both the claim of the Netherlands and the counterclaim of Belgium for misuse of the Meuse river, the Permanent Court of International Justice stated that it found it difficult "to admit that the Netherlands [are now warranted in complaining] about the construction and operation of a lock of which they themselves set an example in the past."[186] The PCIJ did not allow the Netherlands to prevail in their claim as a result of engaging in the same activity that they were alleging against the Belgians. This reflects recognition by the PCIJ of the clean-hands doctrine in international law.[187] This is not an isolated application, as it is evident in many other cases that the doctrine is useful in certain circumstances.

Given the nature and realities of space debris, the clean hands doctrine should limit the liability of states engaged in ADR to claims from other states. For example, Article VI of the Outer Space Treaty imposes on states a number of obligations; including, but not limited to, responsibility for

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[182] Moloo, *supra* note 181.

[183] *Id.*

[184] *Id.*

[185] *Id.*

[186] Pomson & Horowitz, *supra* note 180, at 228.

[187] See generally Pomson *supra* note 180, at 228, 231, 233, 235, providing additional examples of cases where the clean hands doctrine was also recognized in the international forum in addition to the *Meuse* and *Nicaragua* cases. These include *Nullus Commodum Capere de Sua Injria Propria* (no advantage may be gained from one's own wrong) found in the *Factory at Chorzow* case (*Factory at Chorzów (Ger. v Pol),* Jurisdiction, P.C.I.J. Rep (Ser A, No 9) 25 (1927)); *Ex Delicto non Oritur Actio* (an unlawful act cannot serve as the basis of an action in law), found in the *Greenland* case (*Legal Status of Eastern Greenland* (1933) PCIJ Rep (Ser A/B, No 53, 95) (1933)); and Provocation, such that the conduct was merely a response to the defendants activities, as demonstrated in the *Tehran Hostages* case, *United States Diplomatic and Consular Staff in Tehran (United States v Iran)*, Judgment [1980] ICJ Rep 3). All of these doctrines exemplify that while not universally applicable, there are instances in international law which allow for serious discussions on the possible application of the clean-hands doctrine.

national activities, ensuring that activities are conducted in conformity with the treaty, authorizing and continually supervising the activities, and sharing international responsibility for which the state is a participant.[188] Based on this, whether activities of the state itself, or activities of private entities within its own jurisdiction, only states are ultimately responsible for the activities of space objects. Let us examine two parts of the Outer Space Treaty to further develop this argument. First, Article VI says that states have an obligation to ensure "activities are conducted in conformity with the treaty" and second to engage in "authorization and continuing supervision" of activities in space.[189] Article IX says that states "shall engage in exploration so as to avoid harmful contamination."[190] In combination, the Outer Space Treaty says that states are responsible for constant supervision of their material and that they are to engage in activities in outer space that avoid harmful contamination. In the creation of space debris, particularly that of a size we are discussing that cannot be tracked, any state that creates space debris that cannot be tracked is arguably in violation of the Treaty. It follows that a state that then engages to remove such debris from the space environment, if challenged by a state who has launched even a single rocket into space, can raise the defense that the challenging state is in violation of its own Treaty obligations. In other words, the claimant is without clean hands.

The second position that can further bolster instant customary international law to justify unilateral action is couched in existing international rules on self-defense found in the United Nations Charter. While the exact roots of the first formal written acknowledgement of the right of self-defense cannot likely be determined, some in the "natural law" school of thought would argue it has been present since the beginning of human existence. This is often considered by the natural school as an "inherent right", so called because they theorize it transcends any required recognition by a government or formal legislative entity to exist.[191] The counter thought, the more recent school of positivism[192], is not as generous as natural law theorists. Legal positivism

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[188] Outer Space Treaty, *supra* note 48, at art. VI.

[189] *Id.*

[190] *Id.* at art IX.

[191] *See* Jens David Ohlin, *The Doctrine of Legitimate Defense*, 91 Int'l L. Stud. 119, 122-124 (2015).

[192] *See* Ian Brownlie, International Law and the Use of Force by States 3 (1963). Brownlie notes that early on, war waged unregulated among groups, with often very little prohibitions. He stated that the lack of proximity between groups, differences in culture, resources and trade, all led to often very vicious combat and very unfortunate results for the losers. *Id.* However, among the more civilized societies, for example China as early as

advocates that the only legitimate source of law are the written black-letter rules or principles that have been implemented by formal governments or institutions with such authority to be able to do so.[193] In modern times, practice is probably a hybrid of both, but the existence of hard law for self-defense is at least easily found in the international community.

The rights of self-defense in modern international law are clear in one of the most important international documents, the United Nations Charter. Article 51 of the Charter states, in part, "nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations. . . ." [194] The scope of this authority is further amplified (arguendo limited) by Article 2(4) of the Charter, which states that "all members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the United Nations." [195] But the power to be able to engage in self-defense is not limited in any way based on the language of Article 51 which directly points to the "inherent right."[196] This language thus gives states tacit authorization to engage in defense when the state feels it is threatened. The language of Article 51 further states, "measures taken by members in the exercise of this right of self-defense shall be immediately

722-481 B.C., war had taken on at least minimal legal characteristics with a regimented set of rules that had to be followed. *Id. See also* Eustace Chikere Azubuike, *Probing the Scope of Self Defense in International Law*, 17 Annual Survey of Int'l & Comp. L. 129,130-133 (2011). Azubuike highlights the challenges in reflecting an accurate timeline of the evolution of the doctrine of self-defense, and the lack of formal rules for the use of force. However, she points to the Babylonian Talmud, also referenced by Ian Brownlie, as at least an inception point for establishing a distinction between obligatory wars (i.e. self-defense) and voluntary wars for the purpose of extending territory. *Id.* This would later be more formally separated into two distinct theories of war; "just war" and "unjust war." *Id.* Referencing Joachim von Elbe, The evolution of the Concept of the Just War in International Law, 33 A.J.I.L., p. 665, 659 (1939), Azibuke notes justifications for just war had limitations, such that it must be fought by a sovereign authority; have been necessitated by a just cause, and be backed by the right intentions on the part of the belligerents; that is, the intention of the belligerents must be to advance good or to avoid evil. *Id.* These theories would be the basis to further evolve in Europe and throughout the modern world as time went on. *Id.*

[193] *Legal Positivism*, West's Encyclopedia of American Law (2d ed. 2008).

[194] U.N. Charter art. 51, http://www.un.org/en/sections/un-charter/chapter-vii/index.html.

[195] *Id.* at art. 2(4)

[196] *Id.* at art. 51

reported to the Security Council."[197] Ultimately, the assertion is that self-defense is envisioned as a justified, independent and pre-authorized act by a country following a determination that the defense needs of the country are so significant that a state would be justified in acting against it.[198] To what degree might a response be justified? Much of that depends on the nature of the act, such that it would be internationally recognized as rising to the level of an armed attack. There is no bright line rule as to what rises to this level, but the ICJ in the *Nicaragua* case made the best demonstration for a distinction between any acts and those acts that rise to the level of an armed attack. The ICJ distinguished acts that might be considered uses of force from the "most grave forms of use of force", implying that a minor border skirmish versus invasion into another country might not rise to the level of an armed attack.[199] The court stated that it saw "no reason to deny that, in customary law, the prohibition of armed attacks may apply to the sending by a State of armed bands to the territory of another States, if such an operation, because of its scale and effects, would have been classified as an armed attack rather than as a mere frontier incident had it been carried out by armed forces."[200] Understandably space and space based assets have not often been considered in modern international case law up to this point and whether their destruction would rise to the level of an armed attack. However, it is reasonable to determine that based on the dependence of modern nations on space based assets, the weapons which are being created to eliminate space-based assets (reference *supra* 2007 Chinese ASAT test (note 24)), and the potential to render areas of space unusable, the destruction of satellites by another country could create the conditions which rise to the level of armed attack in the eyes of the ICJ and/or international community. By extension, a country that falls victim to the destruction of their satellite by the actions of another, either by the negligence of the other country to remediate or remove their own debris, or hinder the efforts of others, could be considered justified in determining that their own national security interests are in peril and that they must take measures to protect themselves. While this may not rise to the level of responding directly against the offending state, it should be considered a valid act to take steps to protect themselves even if this may interfere with the interests of the offending state (such as any property right concerns) to secure vital national interests.

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[197] *Id.*

[198] *Id.*

[199] *Nicaragua*, *supra* note 181.

[200] *Id*. at paras. 194-95.

If one assumes that there is a viable justification to defend oneself, particularly for critical issues such as national security, one only needs to look at how states use space to determine if, in fact, they are vital to national security: Communications (voice, internet, etc.), global positioning, military, weather, geography and a multitude of other capabilities are all essential to maintaining national security and are increasingly, if not in some cases exclusively, dependent on space-borne objects. Thus, any threat to those objects, including space debris, can affect state's national security interests; ergo, self-defense would be a reasonable justification for removing debris threats from space. One circumstance where this would be most urgent is against debris threats which are directly on course with functioning satellites in space. Another is against debris that, while not necessarily on a direct collision course, may limit the ability of a state to guarantee our use of a certain area of space. This might also be applied equally to justify a decision to clean up other parts of space where states may one day need to transit or operate.

It is worth a brief note that defensive actions are not without some limitations and must be considered. For example, it should be considered that any defensive action must comport with other appropriate international agreements, such as the law of armed conflict. Therefore, principles such as necessity, proportionality, distinction, and unnecessary suffering, as applicable, should be considerations.[201]

Collectively, instant action, i.e. the use of instant customary international law standing alone may be sufficient grounds for supporting unilateral action. However, for states which may be hesitant to take steps into tepid waters, the combination of a unilateral act, supported by already recognized defenses, should create an extremely favorable environment for action for a state cognizant of the true threats that space debris present in a modern world.

VII. Recommendations for Taking Action

This paper initially addressed the history surrounding initial forays into space and the resulting space debris. It then analyzed the current environment and discussed the inevitable growth of debris in space, based both on insertion of new objects and "Kessler" and "Kessler-like" situations. As

[201] See *generally* The United States Army Judge Advocate General's Legal Center and School, International and Operational Law Department, Law of Armed Conflict Deskbook (2012), http://www.loc.gov/rr/frd/Military_Law/pdf/LOAC-Deskbook-2012.pdf.

discussed, current estimates show that the number of space objects in space exceeds 100,000,000 pieces. Unfortunately, the modern interpretation of space law has made it difficult to find a workable solution to this problem, being as it places more importance on the perpetual national ownership of objects in space than it does on the ability of the international community to clean up the space environment. Against this backdrop, the remainder of this paper addresses some options states may exercise to mitigate the threat of space debris.

It is true that no treaty addressing space debris has been signed, nor have any mandatory measures been implemented. Nor is it likely, shy of some catastrophic event, that any mitigation or ADR measures will be established through a treaty. However, as discussed above, customary international law, carrying the same force as regular law, can be established instantaneously. There is no reason why states cannot, by statement and by act, establish instant customary international law pertaining to the unilateral conduct of ADR.

Much like the acceptance of the flyover of Sputnik, international law related to fly-over was established by an immediate act followed by acquiescence by states. No treaty was signed in 1957 allowing for it. The Soviets did it and it was established. The Bush Doctrine provides a more recent example.

So too could a statement, reinforced by action, be accomplished in the field of ADR. And so too is there evidence that such action is within reach. The Swiss and Japanese are already on the cusp, and irrespective of the Liability Convention and other treaties, for which only risk management need be addressed, they are proceeding with ADR. The Japanese proposal for a debris catching net is akin to a space junk trawler.[202] It will be indiscriminate, but only subject to risk management. But is there a risk that states could engage in recourse against them if additional debris is removed?

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[202] For further discussion of this technology, see generally Michael Listner, *A Brief Look at the Legal and Political Implications of Japan's Space Debris Removal Plans*, THESPACEREVIEW.COM (Jan. 27, 2014), http://www.thespacereview.com/article/2441/1. In this article, Listner reinforces that States appear to be going forward with plans irrespective of the potential legal problems (i.e. a nod to the possibility they intend to act according to the "instant customary international law" development proposed by this paper). *Id.* Listner states that "Japan's plan to test space debris removal technology and methodologies is, on its face, a welcome development. *Id.* However, a closer look reveals that Japan may not have fully thought through both the legal and political issues involved with the proposed demonstration and potential fallout….Whether it chooses to do so remains to be seen." *Id.*

First, Article VIII of the Outer Space Treaty imposes the requirement that "a State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body."[203] This is the point at which the clean hands doctrine, self-defense and the Outer Space Treaty intersect, such that debris of a size which cannot be tracked is not under the control of a country. It is not maneuverable, part of a larger body, nor regularly accountable by modern tracking systems because of its size. As such, any owners of debris at this size by the very existence of these pieces in outer space, are in violation of their international treaty obligations. Were a modern ADR activity to be exercised over a space object of this type, without consent, any claim against the ADR operator would inevitably be coming from a state which had failed to fulfill its own obligations. Violation of the OST, plus bolstering of the clean hands doctrine and/or self-defense would have very strong defensive merits against any claimant state.

Second, in most cases, the likelihood that ownership can be attributed to a piece smaller than $10cm^2$ is exceptionally low. The logic then follows that if there is no one to claim ownership of a piece, then what claims could possibly be levied against a state that removed it and who would bring those claims? Moreover, who could claim injury without also triggering their own violations of the OST and other international rights?

Third is the issue of ownership itself. The Japanese proposal, the EDT, has considerable brilliance in this regard; it does not actually capture anything. Instead, it creates a magnetic field to slow down an object passing by it which creates friction. Nature then slows it out of orbit and into the atmosphere. No claims over property have been exercised and no capture has occurred. Although destruction constitutes significant interference with property rights, this form of ADR simply accelerates the destruction of the debris. Similar analysis applies to other proposals such as the "catcher's mitt." It would be hard for a state to claim, even if it was somehow possible to identify that its piece was slowed, that the ADR equipment was somehow wrong to slow the debris down. It had no purpose to begin with and so its operations were not affected.

Last, even if a state could track a small piece that belonged to it, the debris is only being deorbited for destruction. As such, the state's future expectations must be regarded in that context. If it is deorbited into the

[203] Outer Space Treaty, *supra* note 48, at art. VIII.

atmosphere, then as a tertiary benefit to the primary objective of the ADR, secondary pieces that were captured by some form of ADR and destroyed by deorbit would not be problematic. The only reasonable concern could be raised if some form of ADR were to return debris to earth. Under such a condition, if ownership could even be proved, claims of technology transfer might be alleged. However, none of the current models of ADR envision the return of debris to Earth. There is simply no articulable benefit to doing so and none of the models envision that. Therefore, at least currently, the point would be moot until it could be demonstrated that removing debris smaller than $10cm^2$ has some profit/benefit associated with it.

VIII. United States National Security Considerations

The United States National Space Policy lists among its principles the need to enable others to share in the benefits provided by the use of space, that all nations have a right to explore and use space, and that space systems of all nations have the right of passage through, and to conduct operations in, space without interference.[204] Included in these principles are the protection of critical space systems and supporting infrastructures, and strengthening measures to mitigate orbital debris.[205] Under the projected debris environment in space, these objectives will be challenging, if not impossible, to meet. What is more, this policy relies largely on mitigation through better tracking systems to recognize smaller pieces of space debris for avoidance.[206] Avoidance is not going to be enough.

Irrespective of U.S. Presidential guidance or the sense of the U.S. Congress, it is unquestionable that failing to move forward on both mitigation for future debris on an international scale and ADR, both nationally and internationally, will have significant repercussions. Current estimates of NASA predict that the LEO environment will only be stabilized if, in the next 200 years, at least five large, intact objects are removed per year over

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[204] National Space Policy, *supra* note 12, at 3.

[205] *Id.* at 4.

[206] *Id.* at 8. "Foster the Development of Space Collision Warning Measures. The Secretary of Defense, in consultation with the Director of National Intelligence, the Administrator of NASA, and other departments and agencies, may collaborate with industry and foreign nations to: maintain and improve space object databases, pursue common international data standards and data integrity measures, and provide services and disseminate orbital tracking information to commercial and international entities, including predictions of space object conjunction." *Id.*

the next 100 years.[207] And that prediction is only valid assuming that 90% of future launches follow NASA's current mitigation guidelines and that no further explosions or other major debris releases occur.[208] What is even more disconcerting is that adhering to those requirements would only be to stabilize the current LEO environment.[209] Based on the current rates of space debris growth, combined with the likely increase due to additional countries entering space, the need for ADR is simply unavoidable. The fact that there is no international consensus on mandatory debris mitigation guidelines indicates that achieving agreement on reducing the amount of debris added to space will also be problematic.[210] This presents countries, especially the United States (which is highly dependent on space), with a serious national security problem. To do nothing could render the environment increasingly dangerous, if not largely unusable. But, in this current environment, the fact that there is such a low likelihood of negative consequences for removal of space debris smaller than $10cm^2$ creates an incentive for states to do something. Whichever state is first to engage in ADR will have a significant advantage in its own national security strategy.

The United States can take the lead in ADR and build a successful domestic program in several ways, particularly keeping in mind the desire to encourage private enterprise. The most common problem facing private enterprise is "who pays" if ADR is pursued. Especially when it comes to space debris, no one will likely willingly pay for removal of small pieces out of a sense of goodwill. Therefore, an incentive must be created. This can be accomplished, at least domestically, through at least the following opportunities:

Option 1: A government incentive program managed by NASA provides money to private enterprise to develop a viable U.S. ADR system. In turn, the private company can then license the method for business. Private

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[207] *See generally* Hildreth & Arnold, *supra* note 4 (citing J.-C. Liou et. al., *Controlling the Growth of Future LEO Debris Populations with Active Debris Removal*, 66 Acta Astronautica 648, 648 (2010).

[208] *Id.*

[209] *Id.*

[210] *Id.* This contention does not necessarily reflect the international community view on mitigation. *Id.* The EU and UN have been proposing codes of conduct for years, though none of them have gained traction beyond recommended national legislation implementations. *Id.* However, the United States has expressed concerns about such agreements in particular, and whether or not it will be in the interest of the United States. *Id.*

launchers from the U.S. can then be required as part of their launch plan to remove stage rockets and larger pieces of debris created by their launches utilizing this private company. The ADR system can either be launched with the payload itself or later on a separate system depending on launch logistics.

Option 2: A government incentive program managed by NASA provides money to private enterprise to develop a viable U.S. ADR system. The government then creates a launch tax for all launches from the U.S. or on any satellites or parts that utilize a U.S. part (charged on the part itself). This tax, in turn, will be used to fund a "reimburse as you clean" program whereby private companies they submit invoices for a proven removal activity. There will be significant resistance from private enterprise arguing that this is an unfair burden on U.S. enterprise and will drive away business. However, the impact will likely be less significant than is claimed given our advanced technology and export restrictions. An appropriate study would examine costs further, but the solution is a plausible one, if not a politically popular one. This is also a particularly attractive solution to approach the international community with because it encourages universal competition for ADR removal and addresses the debris problem among all spacefaring countries. It does not require that any international country use any particular system, but instead that at least a general fund is set up for debris removal. It also ensures that the competitive disadvantage, if any, that might be experienced by American companies would be mitigated.

Option 3: Private business creates an incentive much like that for the original reusable space vehicle for a large sum of money for a functioning U.S. ADR system. The business model then can rely on either private funding to clear out orbits where private business wants to operate, or by the U.S. government for its goals. In addition, there could be uses for businesses who have a satellite that has gone defunct in orbit and the company wants to replace it. The ADR company could launch its system into orbit, remove the defunct satellite with the ADR system, and then the new replacement satellite could be moved into place.

These are just a few of the options available to try to engage the United States into the business of cleaning space for its own sake. Such operations would also sow the seeds of international development, but taking the first step domestically would be the easiest and most beneficial to the United States.

If United States dependence on space is not incentive enough, then being the first to set the rules should provide sufficient motivation. As with

Sputnik, if the United States is not first to accomplish ADR effectively, then it will be left in an unenviable position in relation to the country that does. If the United States is not first it will have very few options in response. One, it could acquiesce to the precedent established by another state. Two, it could act as a persistent objector to the practice and try to convince the international community to do the same. Third, and least favorable, the United States could be left to act as a persistent objector against the international community if the practice enjoys general acceptance. Any of these results on a descending scale could have the effect of diminishing, if not destroying, United States political capital in the space arena. That leaves none of these as particularly enviable outcomes. Therefore, United States national security policy demands one of two more advantageous options:

1. Either the United States advances its own efforts and becomes both the first to establish an active ADR policy and successfully launch an ADR system, thereby setting the tone and hoping to set the rules for ADR in space; and/or

2. Partner with a country, such as the Swiss or Japanese, that the United States believes will be first to establish an active ADR system to ensure the program is developed and employed consistent with U.S. interests.

As it pertains to the second option, the primary competing interest which must be considered is that the U.S. will be required to "give and take" and that diplomacy will be a key component of such an endeavor. This will take a team of highly talented negotiators to ensure the national security interests of the United States are both considered in the outcome and protected in the long run. Some compromises to the detriment of the United States may be required since it would not own the system. The risk is that even if United States interests are protected, should the relationship foul, it could result in an outcome adverse to us.

On balance, if technically capable, "going it alone" could reap extraordinary benefits. However, it is not to say that the alternative does not have benefits as well. Joining with another country would create at least a bilateral coalition which would likely have great influence through the UN and other diplomatic channels to make small debris removal a reality. Second, it could deflect allegations that the United States was attempting to establish a legal foothold to provide it some unilateral advantage in space. In the case of China or Russia, it is likely that any individual effort on the part of the United States

will be viewed with extreme skepticism. If other countries can be brought in as partners, that perception may have a limited shelf life and influence. Third, it would be counterproductive for the United States to assume that it has the best solution to the problems of space debris to the detriment of making real progress. Instead, if the United States can harness the collective research and knowledge of several spacefaring countries, that could create better results for the good of all. Last, the fact is that the United States is probably already lagging behind other countries for launching a viable ADR system considering the current environment. The Japanese and the Swiss are targeting just a year from now, 2018, for their first potential launches. There does not appear to be any United States system in development capable of accomplishing an equivalent operation. Whether option 1 or 2 is selected, in either case, the outcome would be in line with the strategy of the United States in space to "reinvigorate U.S. leadership."[211] What is most important, however, is that the legal precedent is there to act accordingly so the United States would be well advised to take the lead.

IX. Conclusion

Orbital debris poses an imminent threat to space operations, and more needs to be done to mitigate that threat. At the outset, I noted that there was no ability to solve the debris problem with a singular method. It is also unlikely the international community will agree upon a written collective approach to the problem in the foreseeable future. However, it is intolerable under those two conditions to simply accept the status quo and do nothing while debris continues to be injected into space. Therefore, absent international action, unilateral ADR is appropriate. More importantly, it is legally justifiable, particularly for the most dangerous debris in space; smaller than $10cm^2$.

As a global leader in space, the United States should feel a sense of duty to take a leading role in the endeavor to initiate the active reduction of debris in the space environment. Not only is it legally justifiable, the United States also has a significant interest since it's dependency on space for most facets of American life leave it subject to perhaps the great risk from space debris.

[211] National Space Policy, *supra* note 12, at 13.

Whatever the actions taken to reduce debris, in the final determination, it cannot be ignored that the risks of international action in condemnation of removal are low. Without either legal or moral high ground to dispute American action to reduce debris, it is more likely that countries will acquiesce to the activities of the United States, albeit possibly unwillingly, without much fanfare. Under such conditions, the impetus to begin efforts toward debris removal at the earliest possible opportunity should be significant.

SILICON SYMBIOSIS: A BLUEPRINT FOR PUBLIC-PRIVATE PARTNERSHIPS IN U.S. AIR FORCE ACQUISITION OF NEW TECHNOLOGY

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I. Introduction

The U.S. Air Force's superiority in air, space, and cyberspace is dependent on consistent technological advances.[1] Yet, maintaining technological relevance is challenging and costly.[2] After all, technology is only as valuable as it is timely, and creating and maintaining technology requires continuous invention and investment.[3] Complicating matters, innovation in the context of budgetary constraints requires innovative methods from the Department of Defense (DoD) and the Air Force to fund projects and continue to meet ambitious goals.[4] In this context, public-private partnership (PPP) is an underused vehicle that pairs the Air Force with private sector partners in collaborative agreements that benefit all participants.[5]

This Article provides vital background on PPPs, describes a tech-guided approach to modeling PPPs, explores their applicability to acquisition of new technologies, describes the relevant legal framework, and addresses national security concerns in the context of PPPs. Two central problems are addressed: (i) the challenge of coaxing suitable private actors to partner with the Air Force and (ii) how to ensure national security in the context of data sharing with private partners. To add practice to theory, the author examines a fictional PPP named Apex Firewall,[6] in which the Air Force and Microsoft[7]

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[1] *See* Ike Y. Chang et al., Rand Arroyo Center, Use of Public-Private Partnerships to Meet Future Army Needs, MR-997-A, at xiii (1999).

[2] *Id*.

[3] *Id*.

[4] *See, e.g.*, Daniel Sarewitz et al., Consortium for Sci., Policy & Outcomes at Ariz. State Univ., Energy Innovation at the Department of Defense: Assessing the Opportunities 2, 5, 7 (2012).

[5] PPPs may also be referred to as "3Ps", though in the context of this Article, the author will use the term "PPPs". In the past, PPPs were not used to their full potential because various factors created a less than encouraging climate for their formation. For instance, legislative change, actions from within the Department of Defense, and changes at the municipal government level have all removed barriers, however small, and contributed to a mindset in favor of using PPPs more frequently. Chang et al., *supra* note 1, at xiv-xvii.

[6] There is a vast array of possible technologies that may interest the Air Force, but virtually every technology in the twenty first century will in some way require secure storage of digital data.

[7] The author names Microsoft as a fictional partner for illustrative purposes only. To the author's knowledge, the Air Force maintains no such partnership with Microsoft and the existence of such would be purely coincidental.

cooperatively design and implement a new approach for data storage and transmission that will become the gold standard in cybersecurity.[8]

II. Background

In truth, PPPs are old news.[9] Since ancient times, governments have used PPPs in their most basic form to achieve public goals and allow private actors to benefit as well.[10] Essentially, the PPP is one of the oldest tools at the disposal of governments the world over[11] to do more with less. Indeed, even in the context of Air Force acquisitions, PPPs are well established.[12]

So why write about PPPs at all? Remarkably, only in the last few decades have PPPs achieved new popularity and formats – and thus greater value to potential partners.[13] This has taken place primarily in the context of budget constraints, which have left some government agencies with few options but to devise innovative ways to achieve public ends with less capital.[14] Moreover, while PPPs have often been used in the context of large

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[8] While the fictional project focuses on cybersecurity, PPPs and the points made in this Article could also be applied to any new technological acquisition by the Air Force. PPPs are by no means limited to situations similar to the one at hand, though it is notable that no two PPPs are alike and each must conform uniquely to the partners' goals and capabilities.

[9] *See, e.g.*, Low Hong Kuan, Public-Private Partnerships in Defense Acquisition Programs–Defensible? (December 2009) (unpublished Master's Thesis, Naval Postgraduate School), http://www.dtic.mil/dtic/tr/fulltext/u2/a514416.pdf.

[10] *Id*.; *see also* Chang et al., *supra* note 1.

[11] Notably, today the PPP appears to be used more prevalently in the United Kingdom, Singapore, and Australia, to name a few places, and mostly for public works: infrastructure, education, housing, and health care projects. *See* McKinsey & Co., Partnering for Outcomes: Public-Private Partnership for School Education in Asia 5 (2014).

[12] John Smolen, *Congressional P3 Caucus Reconvenes to Consider P3 Solutions for Department of Defense Infrastructure,* Nossaman LLP Infra Insight Blog (Apr. 29, 2014), http://www.infrainsightblog.com/2014/04/articles/policy/congressional-p3-caucus-reconvenes-to-consider-p3-solutions-for-department-of-defense-infrastructure. Indeed, according to Air Force planners, , PPPs will be essential for the Air Force to operate effectively in the future. U.S. Dep't of Air Force, Air Force Future Operating Concept (2015) at 22, 36, 40.

[13] McKinsey & Co., Public-Private Partnerships: Harnessing the Private Sector's Unique Ability to Enhance Social Impact 4 (2009).

[14] Tara Copp, *Experts: Costs for Upgrading Weapons Will Put Further Pressure on US Forces*, Stars & Stripes, Jan. 27, 2016, http://www.stripes.com/news/experts-costs-for-upgrading-weapons-will-put-further-pressure-on-us-forces-1.390899; also, PPPs offer a

municipal infrastructure projects, like highway overhauls and water treatment projects,[15] PPPs have until recently not been largely embraced in the context of military projects, aside from large housing works projects.[16] In the realm of technology, in particular, PPPs are less recognized because in the past, research and development has primarily taken place either purely in the public sector or in the private sector, with little overlap.[17]

This public-private dichotomy has eroded for decades and will likely face a sea change in the near future as various sectors embrace greater exchange of information, sharing of profits, and innovative structures for ownership and control.[18] In short, the PPPs of the future will augment what the PPPs of the past offered: greater efficiency and better results.[19]

III. Partnering

A. Introduction

A PPP is defined as a collaborative and enforceable agreement between the government and one or more private parties to advance a common goal.[20] Collaboration is vital because the defining feature—what separates PPPs from privatized projects and purely public works—is the cooperative allocation of benefits and risks as well as respective rights and responsibilities between two or more parties.[21] Thus, a PPP allows partners to marshal their strengths and assets in a disciplined manner, resulting in a partnership that is greater

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non-legislative fix in response to hard times, though legislative responses are numerous, for example, the 2016 Defense Policy Bill, which has provisions that authorize spending on a wide range of acquisition programs across the services, overhaul the military retirement system, and reauthorize a host of military pays and benefits. National Defense Authorization Act for Fiscal Year 2016, Pub. L. No. 114-92, 129 Stat. 726 (2015).

[15] McKinsey & Co., *supra* note 11, at 5.

[16] *See* Mahlon Apgar, *Public-Private Partnerships: Lessons from Military Housing*, Insider's Perspective, Nov. 2, 2011.

[17] *See generally* Booz Allen Hamilton, Public-Private Partnerships: Five Principles for Success 2 (2014) (explaining how government transportation sectors provide some of the best examples of success for modern PPPs due to the private sector's innovation, financing, and shared risk).

[18] Urban Land Inst., Ten Principles for Successful Public/Private Partnerships vi (2005).

[19] McKinsey & Co., *supra* note 11.

[20] Chang et al., *supra* note 1, at xiii.

[21] *Id*.

than the sum of the parts.[22] In this way, partners can meet their collective goals more efficiently than otherwise.[23]

PPPs are not, however, a cure-all for budgetary shortfalls.[24] They may not be suitable for every project, and the Air Force should realize that while PPPs are experiencing newfound popularity, a purely public or private undertaking might be preferable to a PPP in some cases.[25] Moreover, if the partners agree to structure a PPP, there is no one-size-fits-all agreement.[26] Each PPP is different because each must be tailored to the partners' specific goals and capabilities.[27] The next section discusses, by way of factors and incentives, whether a PPP is the most suitable vehicle to accomplish certain Air Force objectives.

B. Incentives

It is well known that the cultures at the DoD and in private enterprises contrast sharply.[28] While some would call this an unbridgeable divide, such a dichotomy also offers a key incentive when partners' strengths and weaknesses complement each other.[29] Before a PPP is contemplated, each party must assess the other parties' goals and assets, which will flavor later nego-

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[22] *Id.* at xiv.

[23] *Id*.

[24] Thomson Reuters, Public Private Partnerships: Issues and Considerations 3 (2013).

[25] Suitability of PPPs in various circumstances will be discussed in further detail herein at Section III.D.

[26] Marc Mitchell, *An Overview of Public Private Partnerships in Health* (2008) (unpublished paper, Harvard T. H. Chan School of Public Health), https://www.hsph.harvard.edu/ihsg/publications/pdf/PPP-final-MDM.pdf.

[27] *See, e.g.*, U.S. Dep't of Transp.: Fed. Highway Admin., Public Private Partnerships https://www.fhwa.dot.gov/ipd/p3/defined.

[28] Christian Davenport, *Why the Pentagon is Wooing Silicon Valley (and the Valley is Playing Hard to Get)*, Washington Post, Apr. 23, 2015.

> With a fast-moving culture that rewards impatience, reveres obsession and views failure as a temporary speed bump, Silicon Valley couldn't be more different than bureaucratic Washington. For years, tech companies have shunned the federal government's cumbersome procurement system, even though it's worth billions.
>
> . . . .
>
> The Pentagon is increasingly concerned that it is losing its long-held technological superiority, as other nations invest in new technologies and software.

Id.

[29] Chang et al., *supra* note 1, at xiii.

tiations.[30] In this way, a PPP is a marriage of expertise and assets. Otherwise, without enticing private parties to become partners, the Air Force faces an uphill battle to fund and implement designated projects.[31]

On the one hand, the Air Force wishes to leverage preexisting assets, reduce costs, and avoid or minimize cash outlays for new projects.[32] It also wishes to reduce risk and rely on private sector expertise, particularly in supply chain management and advanced design:[33]

> The [Air Force] is often not aware of the latest developments in certain fields, doesn't always have access to the most advanced equipment, and doesn't have the time or resources to keep current on private-sector R&D efforts. Through PPPs, however, the [Air Force] can gain better access to the entire body of private-sector knowledge, equipment, and know-how without investing additional dollars to gain it.[34]

Research units at commercial firms are familiar with the latest technical developments in their field, have the most advanced equipment to conduct research and development (R&D), and are cognizant of what their competitors are researching.[35]

On the other hand, the private sector wants a good return on investment.[36] Crucially, private companies exist primarily to maximize stakeholder profit.[37] Ultimately, the officers and directors of a business owe a fiduciary

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[30] *Id*.

[31] Davenport, *supra* note 28.

[32] Daniel M. McRae, Seyfarth Shaw LLP, Presentation, *P3: Understanding Public/ Private Partnerships*, (August 2013), 6-8 (disusing the PPP concepts of monetization and cash flows), http://seyfarth.com/uploads/siteFiles/publications/CDFAPresentation_ DanMcRae.pdf.

[33] Moreover, U.S. Dep't of Def., Dir. 5000.01, The Def. Acquisition Sys. para. E1.1.17 (12 May 2003) (C1, 20 Nov. 2007), mandates the use of public-private partnerships, directing that "sustainment strategies shall include the best use of public and private sector capabilities through government/industry partnering initiatives, in accordance with statutory requirements."

[34] Chang et al., *supra* note 1, at 15.

[35] *Id.*

[36] *See* McRae, *supra* note 32.

[37] *See* McRae. *supra* note 32, at 6-9.

duty to its owners to increase profit.[38] The Air Force can offer a rare investment by making its assets available for use (thus reducing overhead costs) and by enticing private partners with future sales and licensing of a product.[39]

Moreover, the Air Force can entice partners with its vast property holdings, facilities, equipment, and research systems.[40] In the field of intellectual property (IP), Air Force contributions include preexisting research facilities, scientific expertise, patents, databases, and other elements of its knowledge base.[41] All of this, when properly structured in a PPP, will appeal to private partners by offering a stable, long-term investment opportunity.[42]

Bridging the divide between the public and private sectors is essential. In truth, the Air Force may sometimes find itself in the ungainly and historically unaccustomed position of courting private partners in projects that decades ago would have been entirely funded and overseen by the government.[43] This shift in roles is perhaps a difficult concession that the Air Force must acknowledge and which will frame any discussion between partners.[44] Ultimately, if a PPP makes sense for a project, the partners must next address the contours of the agreement.

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[38] Marshall Huebner & Hugh McCullough, The Fiduciary Duties of Directors of Troubled U.S. Companies: Emerging Clarity 6, (July 2009), http://goo.gl/8SyLXR.

[39] *See* 31 U.S.C. § 6305 (2012), 10 U.S.C. § 2371 (2012), and 15 U.S.C. § 3710a (2012), pertaining to licensing.

[40] Smolen, *supra* note 12.

[41] *Id*.

[42] Carol J. Bailey et al., Federal Public-Private Partnerships: The Basics of Finance and Why This is Important to You 1, 4, 12 (2014).

[43] Davenport, *supra* note 28 ("'Google may not need defense contracts, but the Pentagon needs more and better relationships with companies like Google,' he wrote. 'Only the private sector can provide the kind of cutting-edge technology that has given U.S. troops a distinct advantage for the past 70 years.'").

[44] *See* William J. Broad, *Billionaires with Big Ideas Are Privatizing American Science*, N.Y. Times, March 15, 2014 ("Over the years, the flood of private money has also inspired something of a reversal. In gene sequencing, in translational medicine, in the Obama administration's Brain initiative and in other areas, the federal government, instead of setting the agenda, increasingly follows the private lead.").

C. Contours

PPPs are commonly discussed in terms of ownership, structure, and risk-reward distribution.[45] As with any joint venture, ownership refers to the right of the partner with the ultimate stake in controlling an asset.[46] Structure refers to the network of contractual responsibilities that undergird the rights of the partners.[47] Finally, the risks and rewards flow naturally as a result of the partners' contractual structure and the resulting legal ramifications.[48]

1. Ownership

A logical starting point for understanding technology acquisition PPPs is ownership, since virtually all other rights derive therefrom. In the context of almost all PPPs, the government, in contrast to wholly privatized projects, owns the structure and output of the partnership.[49] But while the government is the owner, private actors put forth needed capital and expertise for a project, which are key inputs for the partnership.[50] Thus, while it is vitally important and logical that the Air Force retain ownership of a PPP and its output, the structure of the PPP, as described in the following section, must sufficiently benefit the private partner.

2. Structure

If public projects and privatized undertakings are all or nothing in terms of control, PPPs offer an attractive middle path in which two sectors nourish and complement each other toward a mutual goal.[51] Flexibility is critical when parties first meet to structure a PPP.[52] There are no rules for structuring a PPP, except that the partners should be completely transparent

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[45] Cal. Debt & Inv. Advisory Comm'n, Issue Brief, Privatization vs. Public-Private Partnerships: A Comparative Analysis 1 (2007), http://www.treasurer.ca.gov/cdiac/publications/privatization.pdf.

[46] *Id*. at 12-20.

[47] *Id*. at 13.

[48] *Id*. at 18.

[49] Chang et al., *supra* note 1.

[50] *Id*.

[51] *Id*.

[52] *Id*.

with one another.[53] Virtually any term applicable in an ordinary joint venture is also negotiable in a PPP.

Structure is traditionally put forth in a series of contractual agreements, beginning with a letter of intent or terms of agreement and culminating in a master contract with numerous attachments and exhibits.[54] The most labor-intensive and time-consuming part of forming any PPP is the planning and negotiation that goes into designing a proper structure.[55] Further insight and examples of PPP structures will be provided *infra* in Section III.D.

3. Risk and Reward

Risk concerns not only general liability for negligent acts and omissions, but also costs relating to project design, regulatory compliance, faithful adherence to the milestones set by the partners, and ultimate delivery of an asset.[56] A PPP permits the partners to negotiate a distinctive distribution of risk and reward.[57] Often, general economic principles govern, such as (i) greater risk should be borne by the partner that is better equipped to manage or prevent a given risk from occurring; (ii) alternatively, greater risk should be borne by the partner that is in a better position to recover the costs associated with a given risk; and (iii) with greater assumption of risk comes a proportionately greater share of the rewards of the PPP.[58]

Beyond general principles, risks ordinarily assumed by a private partner include: (i) risk of faulty design or inspection of preexisting goods; (ii) risk of operating or maintaining a good or service safely and in conformity with its design criteria; (iii) risk associated with general maintenance; and (iv) risk of exceeding the financial budget under the terms of the PPP.[59] Conversely, the Air Force might assume the risk associated with (i) a change in the ultimate goals in PPP strategy; (ii) contractor defaults; and (iii) conducting all maintenance and operations in conformity with applicable laws and regulations.[60] Finally, risks commonly shared by the partners include:

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[53] *Id*.

[54] Thomson Reuters, *supra* note 24.

[55] *Id.*

[56] Chang et al., *supra* note 1.

[57] *Id*.

[58] *Id*.

[59] *Id*.

[60] *Id*.

(i) catastrophic events, which are not necessarily the fault of either partner, and (ii) shared negligence or fault.[61]

Common Risk Sharing Responsibilities in a PPP[62]			
Type of Risk	**Public Sector**	**Private Sector**	**Shared**
Regulatory/Legislative	X		
Government Default	X		
Planning and Design		X	
Permits and Approvals		X	
Construction		X	
Occupational/Workforce		X	
Operation/Maintenance		X	
Financial/Market		X	
Private Sector Default		X	
Political			X
Acts of God			X
Demand		Project dependent	

D. Models

While each PPP is different and should be tailored to the project's ultimate goal and the partners' capabilities, certain popular models have arisen from common usage and trial and error.[63] In describing a few of the more common models, as defined by the National Council for Public-Private Partnerships, the author will note which of them would be appropriate for Apex Firewall,[64] taking into consideration its goal of data encryption and the extent of data sharing between the Air Force and Microsoft.[65]

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[61] *Id*.

[62] Patrick Sabol & Robert Puentes, *Private Capital, Public Good: Drivers of Successful Infrastructure Public-Private Partnerships*, The Brookings Institute, Dec. 17, 2014, http://www.brookings.edu/research/reports2/2014/12/17-infrastructure-public-private-partnerships-sabol-puentes.

[63] *See* U.S. Gen. Accounting Office, GAO/GCD-99-71, *Public-Private Partnerships: Terms Related to Building and Facility Partnerships* (April 1999).

[64] The PPP models discussed in this Article are by no means exhaustive or representative of the broad spectrum of models available for use. Indeed, an entire article could be devoted entirely to established PPP models and hybrids. This Article discusses only the most prominent and applicable models for the example at hand.

[65] The Nat'l Council for Pub.-Private P'ships, Types of Public-Private Partnerships, http://www.ncppp.org/ppp-basics/types-of-partnerships.

The Design-Build (DB) model for PPPs can encompass both IP and hardware projects, though DB PPPs typically address a physical construction, with the IP considerations stemming organically therefrom.[66] In such a model, a public partner seeks a private partner that can provide the design and construction of a project.[67] Ultimately, while DB procurement could be used to address both construction and IP concerns, it is not best suited for Apex Firewall. A similar model, the Design-Build-Operate (DBO) model, is closer to the mark.[68] The DBO procurement model envisions an award of a contract for the design, construction and operation of a public project.[69] Such a model can support a long-term contract between two partners, but the "operation" aspect of the model best related to a physical facility.[70] Thus, the DBO model is also not best suited for Apex Firewall.

Better still is the turnkey model, in which the Air Force contracts with a private partner to design and complete a polished good or service in accordance with specified performance standards and criteria for a fixed price, and in which the private partner commits to absorb the construction risk and cost of meeting the agreed upon price.[71] While this model might appeal to the Air Force, it is generally less preferable to private partners (and thus a difficult sell) due to the exposure of risk concerning unforeseen price increases and construction mishaps.[72]

The final notable model is the concession model, which mitigates the risk aspect of the turnkey model.[73] In such a model, a private partner has the exclusive right to provide, operate, and maintain an asset according to performance requirements set by the public partner. The public partner retains ownership of the original asset.[74] Similar to the Design-Build-Finance-Operate-Maintain (DBFOM) model,[75] in a concession model, the Air Force would (i) initially describe its objectives; (ii) propose a solution; (iii) offer

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[66] *Id.*

[67] *Id*.

[68] *Id*.

[69] *Id*.

[70] *Id.*

[71] *Id*.

[72] *Id*.

[73] *Id*.

[74] McRae, *supra* note 32, at 11.

[75] *See* The Nat'l Council for Pub.-Private P'ships, *supra* note 65 ("DBFOM" models incorporate design, building, financing, operating, and maintaining of a project).

facilities and appropriate assets; and (iv) own the final product. The private partner would (i) oversee project design and progress; (ii) provide and oversee project financing; (iii) be responsible for construction and development milestones; and (iv) ultimately operate and maintain the good or service, profiting therefrom, subject to the Air Force's ownership rights.[76]

Apex Firewall brings together the Air Force and Microsoft to design a new encryption method for the secure storage, retrieval, and transmission of digital information. Perhaps no goal is more worthy of attention and investment today, as public and private sectors face private and state-sponsored cyber threats on a daily basis.[77] The concession model would be most appropriate for Apex Firewall because it (i) minimizes up-front risk for the partners; (ii) leverages Microsoft's knowledge base and financing options, as well as the Air Force's preexisting IP, manpower, and facilities; and (iii) provides the partners (though primarily Microsoft) with financial incentive in the form of profitable licensing opportunities from later extensions of the encryption method.

Fundamentally, Apex Firewall envisions two main tasks: the design and implementation of an encryption program, and the subsequent maintenance and upkeep of the program, which entails responding to cyber threats and updating the system as necessary. Whether such a PPP will succeed is determined by various success factors.

E. Success Factors

Section III concludes with final thoughts on factors that will increase the likelihood of forming and operating a thriving PPP. The first factor concerns the statutory environment. A reliable legal framework is a prerequisite

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[76] The concession model and elements of other PPP models discussed herein are akin to more traditional government-owned, contractor-operated facility partnership, though PPPs offer a perhaps less adversarial and more conciliatory avenue for public-private interaction. *See, e.g.,* Colonel Benjamin M. Nutt, Evolving the Army's Government-Owned Contractor-Operated (GOCO) Facilities Business Model 2, 16 (Nov. 3, 2011) (unpublished U.S. Army War College Research Project), http://www.dtic.mil/get-tr-doc/pdf?AD=ADA553057.

[77] *See generally Worldwide Threats and Homeland Security Challenges: Hearing Before the H. Comm. on Homeland Sec.*, 114th Cong. (2015) (statement of James B. Comey, Director, Federal Bureau of Investigation), https://www.fbi.gov/news/testimony/worldwide-threats-and-homeland-security-challenges.

for a successful partnership.[78] First, the Air Force must be fully authorized to enter into concession and partnership contracts with private parties without second review by the legislature.[79] This is necessary not only to streamline the PPP formation process but also to entice private parties to consider a PPP which is not subject to unnecessary, duplicative review. Ideally, the DoD would implement and appoint a review board for proposed PPP contracts, such that an initial review can be thorough and final.[80] Also, the legislature must scan the legal landscape for hitches that are sure to arise, such as state and local laws relating to rate-setting requirements, insurance requirements, federal loans, fraud statutes, and environmental review processes.[81] Ultimately, the more thorough such a review is, the less likely it is that an unforeseen problem will arise at an inopportune moment.[82]

The next factor concerns reliable contracts. Crucially, the vision for a PPP must be laid down carefully in the text of a contract between the partners for the lifetime of a project. Key features of a contract must include an exhaustive description of the partners' responsibilities, as well as the risks and benefits for both the public and private partners.[83] Perhaps no other feature of the PPP is as vital as the precision and scope of the contract.[84] Of course, all contingencies cannot be foreseen. Thus, as with any contract, a good PPP agreement will include a clearly defined method of alternative dispute resolution.[85] Ultimately, the PPP contract is both the starting point and ending point for any discussion about the partnership.

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[78] Jaime Rall, et al., Public-Private Partnerships for Transportation: A Toolkit for Legislators, National Conference of State Legislatures, 2010, www.ncsl.org/documents/transportation/PPPTOOLKIT.pdf.

[79] *Id*.

[80] Emilia Istrate & Robert Puentes, *Moving Forward on Public-Private Partnerships: U.S. and International Experience with PPP Units,* Brookings-Rockefeller, 2011.

[81] *Id.*

[82] It is notable that approximately two thirds of U.S. states have some form of PPP-authorizing laws in place. Unfortunately, most such laws are myopic in their scope, focusing on transportation. Eno Center for Transportation, *Partnership Financing: Improving Transportation Infrastructure through Public Private Partnerships,* 2014, https://www.enotrans.org/etl-material/partnership-financing-improving-transportation-infrastructure-through-public-private-partnerships/.

[83] The National Council for Public-Private Partnerships, *7 Keys to Success*, http://www.ncppp.org/ppp-basics/7-keys.

[84] *Id*.

[85] *Id*.

The final factor concerns the partners' revenue stream. The immediate capital derived from a private partner comes with strings attached and all parties should be concerned about the viability of the project and its long-term revenue streams.[86] The revenue stream is vital and should be planned for far in advance of the PPP.[87] Viable PPPs will be structured in such a way as to guarantee financial sustainability through clearly stated terms of funding, such as frequency of payments, amounts, and accountability metrics.[88] At the outset of a PPP, it is ordinary that the private partner will put forth funding for capital improvements. Ultimately, however, the partner must plan for a reliable revenue stream that is substantial enough that the initial capital infusion is no longer necessary due to a future rate of return on the investment during the life of the PPP.[89] The revenue stream can come from any number of methods of income, so long as it is virtually guaranteed to accrue for the period of the PPP investment.[90]

IV. Technology

Virtually every aspect of the Air Force is in some way affected by technology, from stealth cloaking, to weaponry, to unmanned aerial vehicles.[91] Rather than address technology vaguely, this Article takes a concrete example that is both timely and applicable to virtually all other technologies: cybersecurity.[92] Apex Firewall envisions an answer to the question of how businesses and governments can securely store and share information.[93] In this fictional PPP, the Air Force and Microsoft seek to design, implement, and operate an archetype for an impenetrable firewall that desktop computers, mobile devices, and cloud databases can rely on to store and transmit sensitive information and to keep out harmful external programs. This is a

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[86] Chang et al., *supra* note 1.

[87] *Id*.

[88] McKinsey & Co., *supra* note 11, at 13.

[89] *Id*.

[90] *Id*.

[91] For only a glimpse of the vast array of technology that the Air Force is currently developing, *see* www.airforce-technology.com.

[92] On February 9, 2016, President Obama sent a $4 trillion budget to the U.S. Congress, seeking a substantial $19 billion for a broad cybersecurity initiative. *See* Jackie Calmes, *Obama's Last Budget, and Last Budget Battle with Congress*, N.Y. Times, Feb. 9, 2016 ("The White House pointed to the cybersecurity initiative as a centerpiece proposal that should garner bipartisan support.").

[93] David Barno & Nora Bensahel, *Preparing for the Next Big War*, War on the Rocks, Jan. 26, 2016, http://warontherocks.com/2016/01/preparing-for-the-next-big-war.

critically important goal, since every organization relies increasingly on its cyber structure.[94]

Moreover, Apex Firewall is an extremely appealing project for the Air Force and DoD because of the nature of sensitive military intelligence and the Pentagon's express role in cyberspace, which is to block foreign hackers targeting domestic systems, assist U.S. combat troops overseas, and defend military networks.[95] Apex Firewall illustrates that while the infrastructure of the Air Force is a vital asset, equally important is the commercial expertise and forward thinking of private tech companies, such as Microsoft.[96] The Air Force's reliance on private partners in technology acquisition is a tried and true practice:

> From application developers to Internet Services Providers, private companies provide the goods and services that make up cyberspace. The Defense Department relies on the private sector to build its networks, provide cybersecurity services, and research and develop advanced capabilities. The Defense Department has benefited from private sector innovation throughout its history. Going forward, DoD will work closely with the private sector to validate and commercialize new ideas for cybersecurity for the Department.[97]

Plainly stated, there is no more pressing objective for the Air Force and DoD than securing information, defending networks and systems from cyberattacks, and providing integrated cyber capabilities to support military operations and contingency plans.[98]

In the context of technology acquisition, the key concerns are ownership of IP, quickness of technological development and marketing, and

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[94] *Id*.

[95] *See* U.S. Dep't of Def., The Dep't of Def. Cyber Strategy (2015), http://www.defense.gov/News/Special-Reports/0415_Cyber-Strategy. "The purpose of this strategy is to guide the development of DoD's cyber forces and strengthen our cyber defense and cyber deterrence posture. It focuses on building cyber capabilities and organizations for DoD's three primary cyber missions. In print form, the Cyber Strategy can be accessed at http://www.defense.gov/Portals/1/features/2015/0415_cyber-strategy/Final_2015_DoD_CYBER_STRATEGY_for_web.pdf.

[96] Thomson Reuters, *supra* note 24.

[97] U.S. Dep't of Def., *supra* note 95.

[98] *Id*.

R&D capacity of partners.[99] With these objectives in mind, PPPs are highly suitable for technology development and acquisition.[100] This is because (i) there is a significant opportunity for private sector innovation in design and construction of an asset; (ii) clearly definable output specifications can be established for project milestones; (iii) an opportunity exists for the private sector partner to generate significant streams of revenue through IP licensing; and (iv) many risks in the process of technology development, such as marketing, can be suitably transferred to the private sector.[101]

V. Legal Framework and Considerations

A. Introduction

Fundamentally, a PPP consists of (i) a partnership agreement, covering the rights and responsibilities of the partners, and (ii) a goods or services contract, which describes the contours of the partners' ownership, control, and dispute resolution.[102] Typically, these two agreements are the result of many months of intensive negotiating between the partners and their attorneys to devise both a legal plan and a business plan. As a practical matter, the legal considerations most immediately applicable to PPPs concern the common law of contracts, partnership obligations, and good faith dealings between parties.[103] Outside of these common law constraints, applicable statutes also impact the partners' meeting of the minds and adherence to the agreement.

B. Applicable Laws, Instructions, and Directives

The applicable laws and regulations governing a technology acquisition PPP are governed by the characteristics of each PPP. A common form of such a PPP is structured as a Cooperative Research and Development Agreement (CRDA), which is a cooperative R&D agreement between the Air Force and one or more private partners.[104] 15 U.S.C. 3710(a) permits the

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[99] Chang et al., *supra* note 1.

[100] *Id*.

[101] P'ships British Columbia, An Introduction to Public Private Partnerships, (2003), http://www.partnershipsbc.ca/pdf/An%20Introduction%20to%20P3%20-June03.pdf.

[102] Thomson Reuters, *supra* note 24.

[103] *Id*.

[104] It is crucial to note that this Article envisions a collaborative agreement between the USAF and private sectors to *jointly develop and create* new technologies, rather than the USAF simply acquiring already developed technologies from private companies and

use of CRDAs for joint technology development.[105] CRDAs are beneficial to Air Force technology acquisition because they typically allow for quick R&D while conserving resources.[106] They also permit lawful sealing of R&D progress for up to five years from Freedom of Information Act (FOIA) requests, providing a substantial degree of confidentiality.[107] Finally, CRDAs allow partners to structure a PPP so that either the Air Force or a private party may file a patent application for technology developed in a PPP.[108] The right to own or co-own valuable new IP is a significant bargaining chip in the effort to attract top private partners.[109] If a private partner ultimately bargains for the joint rights to patent protection, the Air Force may seek a license to the patent in order to offset this concession.[110]

Tangential to any CRDA is the concern of facilities and equipment housing, which requires the use of leases or workshare agreements from the Air Force to partners.[111] Provision of space agreements may be covered in the primary PPP or may be contemplated in separate but related contracts. In addition to provision of Air Force-owned space to conduct R&D, Federal Acquisition Regulation (FAR) 45.3 authorizes the provision of government-furnished materials to partners.[112] Also, FAR 45.4 provides for contractor use and rental of government property.[113]

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universities.

[105] CRDAs are designated under the Federal Technology Transfer Act of 1986 Pub. L. No. 99-502, 100 Stat. 1785, amending the Stevenson-Wydler Technology Innovation Act of 1980 Pub. L. No. 96-480, 94 Stat. 2311.

[106] *See generally* U.S. Dep't of the Interior, *What is a CRADA*, http://web.archive.org/web/20061013013706/http://www.usbr.gov/research/tech-transfer/together/crada/whatcrada.html.

[107] *See* U.S. Dep't of the Interior, *Cooperative Research and Development Agreement (CRADA)* (2015), http://www.usgs.gov/tech-transfer/what-crada.html.

[108] *Id*.

[109] *See* Stephen Rodriguez & Gregg Sypeck, *One Defense: Bridging the Pentagon and Silicon Valley*, War on the Rocks, Nov. 12, 2015, http://warontherocks.com/2015/11/one-defense-bridging-the-pentagon-and-silicon-valley.

[110] *Id*.

[111] Leases, as contemplated above, are authorized by 10 U.S.C. § 2667 and 10 U.S.C. § 2474 and are the primary authorities for lease of non-excess real property. In contrast, workshare agreements exist without specific legal authority because funding is not exchanged between the partners.

[112] FAR 45.3 (2007).

[113] FAR 45.4 (2010).

C. Overcoming Legal Challenges

While CRDAs provide a legitimate avenue for PPP implementation, the most frequently named problem for PPPs is nevertheless a perceived absence of legal authority.[114] This mistaken perception—along with a set of acquisition regulations that could be more accommodating to PPP creation,[115] a challenging organizational framework within which to get legal advice, and decision makers unfamiliar with PPP legal issues—presents a significant challenge. Task groups have historically faced an uphill battle even identifying a centralized DoD office that provides guidance, authorization, or support to carry out a PPP.[116] Without the predictability of an overarching legal authority, many PPPs will never get off the ground. Furthermore, alternatives, such as partnering with another agency that has broader authority, may exist, but this can require significant legal maneuvering and delay, and can result in partners feeling that it is not worth the risk or time investment.[117]

Second, conflict of interest rules may also present challenges because they may be perceived as overly restrictive.[118] For example, a senior officer may be advised that he cannot work with a private partner simply because doing so could give rise to an inference of preferring one organization over another. A similar legal obstacle concerns the Air Force not being able to meet with one potential partner without meeting with everyone in the sector, again because of the appearance of favoring one organization over the other.[119]

Finally, the decision makers, who are often senior officers that initiate PPPs, may not be attorneys or legal experts. They rely on guidance from their general counsel or from counsel in the Office of the Secretary of Defense – and these attorneys are often perceived to have veto power. Because PPPs occupy an arcane area of law, there are few attorneys with the requisite expertise to give clear actionable guidance that supports PPPs. This, combined with a strong aversion to risk, may result in most attorneys considering it easier to say "no" to a proposed PPP.[120]

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[114] *See* Chang et al., *supra* note 1 at Ch. 3.

[115] Merrick Carey et al., Public Private Partnerships and the Future of the Army Industrial Enterprise (2006), at 17.

[116] Chang et al., *supra* note 1.

[117] *Id*.

[118] *Id*.

[119] *Id*.

[120] *Id*.

In response to the foregoing legal challenges, the Air Force must strive to emphasize the authority it has cited for past PPPs (i.e., general CRDA authority). It must also develop a central office for reviewing and approving PPPs with a view to workable partnerships.[121] Finally, with time, it will become easier to convince military attorneys to take calculated risks when approving PPP proposals.[122] Conflict of interest regulations must be carefully parsed in the context of PPPs so that the Air Force is not overly cautious or averse to early meetings with would-be PPP partners.[123] Finally, Air Force decision-makers and attorneys must be finely attuned to the benefits of PPPs, which help offset risk.[124] They must realize that PPPs do not present a significant threat when properly and thoughtfully designed.

VI. National Security Implications

A. Introduction to Data Sharing

Different national security concerns arise based on the parameters of each PPP. The overarching concern, however, is inherent in the fabric of the PPP: when the Air Force embraces a private party in a cybersecurity partnership, it agrees to share intelligence, thereby entrusting a governmental outsider with internal information. This enhances the ever-present risk of data breaches, misappropriation of confidential government information, and impermissible performance of an inherently governmental function. In carefully selecting private partners, the Air Force must scrutinize the contours of its own authority to disclose information to private partners and the risks and liability for entrusting intelligence it to others.

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[121] Org. for Econ. Co-operation and Dev., Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships, (2012), http://www.oecd.org/governance/budgeting/PPP-Recommendation.pdf, at 2 (stating PPPs are in reality "PPPPs"—meaning "public-private-political partnerships." Doing business with the DoD means doing business with the U.S. political system. That means considerations like cost efficiency and operational suitability are often subordinated to reelection considerations).

[122] *See* Loren Thompson, *Five Reasons Why Silicon Valley Won't Partner with the Pentagon*, Forbes, Apr. 27, 2015, http://www.forbes.com/sites/lorenthompson/2015/04/27/five-reasons-why-silicon-valley-wont-partner-with-the-pentagon/#77a685a34071.

[123] *Id*.

[124] Org. for Econ. Co-operation and Dev, *supra* note 121 at 2.

Data sharing is central to Apex Firewall and many other PPPs that further Air Force objectives. In PPPs, partners may share substantial amounts of data. Of course, in the context of cybersecurity PPPs, data sharing is vital to breach detection and response by ensuring that partners' efforts are not needlessly duplicated and that one partner's detection may later become the other partner's prevention.[125] While federal information sharing programs are not novel,[126] any new partnership involving an exchange of information must heed a number of national security risks inherent in data sharing.[127]

B. Risk

In general, policy for national security vulnerabilities must be formed by a carefully weighed risk of the likelihood of a breach, taking into consideration the number of detected credible threats, vulnerability, and the harm of a breach.[128] Each of these factors leads to considerable guesswork. On the issue of threat, the Air Force can only evaluate capabilities and possible intent of outside forces, often by educated guess.[129] In addition, historical attacks and contemporary trends in cyberattacks in other sectors will guide the Air Force. On the issue of vulnerability, the Air Force has only inferential data based on previous attacks and information on where weak points exist.[130] However, the Air Force can learn from its own mistakes and those of other similarly situated organizations in order to stave off future attacks.[131] Finally, as for the harm of a breach, it is easy to measure an effect on the infrastructure of an organization, but it is impossible to evaluate the holistic harm to

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[125] Denise E. Zheng & James A. Lewis, *Cyber Threat Information Sharing: Recommendations for Congress and the Administration*, Center for Strategic and International Studies (CSIS) (2015), http://csis.org/files/publication/150310_cyberthreatinfosharing.pdf.

[126] Examples include the Department of Homeland Security's Cyber Information Sharing and Collaboration Program (CISCP) and the Federal Bureau of Investigation's Infraguard Program.

[127] *Id.*

[128] Paul Rosenzweig, Cybersecurity and Public Goods: The Public/Private "Partnership" (2011), http://www.hoover.org/sites/default/files/research/docs/emergingthreats_rosenzweig.pdf.

[129] *Id*. at 7.

[130] *Id*.

[131] *See generally* Ben Buchanan*, The Dangerous Diffusion of Cyber Operations*, War On The Rocks, Feb. 29, 2016, http://warontherocks.com/2016/02/the-dangerous-diffusion-of-cyber-operations.

an organization.[132] Thus, there is immediately a great deal of guesswork in evaluating national security and technology.

C. Classified Information

In the event of a cyber breach, private partners are likely be frustrated by the classified nature of government information and the necessity of occasional one-way communication between the partners. PPPs may be stymied in the context of combating cyber threats by governmental limitations on sharing threat and vulnerability information with the private sector.[133] The Air Force sometimes collects data using sources and methods that are classified and disclosure of the information risks compromise of those sources and methods.[134] Less frequently, the existence of the threat or vulnerability is itself classified information since disclosure of its existence or scope might adversely affect security.[135]

Of course, classifying information serves the vital purpose of protecting information which if disclosed "reasonably could be expected to cause exceptionally grave damage to the national security."[136] Against the gut reflex that runs counter to disclosure, one must weigh a more modern standard of greater information sharing in an age of counter-terrorism.[137] For any PPP, these warring approaches are in constant tension.[138] For example, the Government Accountability Office reported last year that according to its survey, private sector actors most want their federal partners to provide "timely and actionable cyber threat and alert information—providing the right information to the right persons or groups as early as possible." This, despite only 27% of survey respondents reporting that they received timely cyber threat

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[132] Even industry professionals are unable to reliable quantify the harm done by cyberattacks by Anonymous on PayPal, MasterCard and Amazon. While the harm is vast, it is also unquantifiable.

[133] Zheng and Lewis, *supra* note 125, at 12.

[134] *Id*.

[135] *Id*.

[136] Exec. Order No. 13,526, 75 Fed. Reg. 707 (Dec. 29, 2009) at §1.2(a)(1), (defining "Top Secret" information). *See* also Exec. Order No. 13,526, 75 Fed. Reg. 707 at §1.2(a)(2) (stating "Secret" information is that whose disclosure would cause "serious damage" to national security).

[137] Zheng and Lewis, *supra* note 125, at 12.

[138] *Id*.

information[139] and respondents lamenting that they do not routinely receive the security clearances required to act upon classified threat information.[140]

Ultimately, the success of Apex Firewall and perhaps most PPPs will hinge on the ease and readiness of the partners to share real-time data with one another in full confidence.[141] Of course, the Air Force must at times withhold information deemed too timely or sensitive for disclosure to third parties; however, in the realm of PPPs, the rules of data sharing must be reconsidered in order to permit quick assessment of data as well as harsh penalties for mishandling data or betraying the trust of a partner.

D. Proposals

While the national security concerns inherent in PPPs are numerous, the possible solutions to each concern are equally numerous. First, the demand for creative solutions is great. In Apex Firewall, for example, Microsoft is the de facto guardian of tens of millions of businesses' and individuals' data, much of it sensitive and personally identifying.[142] Microsoft is a highly visible company that is ingrained in private and public life.[143] As such, Microsoft encounters unique types of threats because well-funded cyber groups that are sponsored by criminal adversaries or nations often target multinational companies.[144] A creative hub-and-spoke data model, in which data about cyber threats and response to attacks is focused in the government, while data is both fed to and sent from private actors, would protect both national security interests and cyber security concerns.[145] This model would be well-suited for PPPs with large corporations, which safeguard commerce and personal computing for countless parties.

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[139] *See* U.S. Gov't Accountability Off., GAO-10-628, Critical Infrastructure Protection: Key Private and Public Cyber Expectations Need to Be Consistently Addressed (2010) at 14.

[140] *Id*. at 16-17.

[141] The public opinion seems to be changing. *See* Abbe David Lowell, *The Broken System of Classifying Government Documents*, N.Y. Times, Feb. 29, 2016, http://www.nytimes.com/2016/02/29/opinion/the-broken-system-of-classifying-government-documents.html.

[142] *See generally* Spencer Ackerman & Dominic Rushe, *Microsoft, Facebook, Google and Yahoo Release US Surveillance Requests*, The Guardian, Feb. 3, 2014, http://www.theguardian.com/world/2014/feb/03/microsoft-facebook-google-yahoo-fisa-surveillance-requests.

[143] *Id*.

[144] Buchanan, *supra* note 131 at 1.

[145] *Id*. at 6.

Second, private partners worry that information divulged to the Air Force may be forwarded to other government agencies for regulatory purposes, law enforcement, or intelligence collection.[146] In response, PPP contracts must squarely address the method of collecting data and the contours of storage and use of information. No reasonable private partner will enter into a PPP with the Air Force without the guarantee of secure data storage and without precisely delineating the uses of data. A well-drafted PPP will put these worries to rest and also address future data sharing with additional private and public partners.

Third, prior to sharing data, partners must take great care to eliminate personal information that is irrelevant for cyber threat purposes. On the one hand, certain personally identifiable information, for example, the internet protocol address of a cyber attacker, is central to identifying and deescalating a cyber threat. On the other hand, any personally identifiable information that is not germane to a threat should be "scrubbed" and thus made anonymous prior to sharing. The obvious concern in this context is unnecessarily disclosing personal information in violation of privacy protections.[147] Numerous governmental and private entities already take substantial steps to delete or anonymize personal information,[148] but there are ever-present concerns about privacy and exposure to lawsuits and negative publicity. To avoid this, the Air Force must develop workable standards for PPPs with guidance from the National Institute of Standards and Technology and the Department of Homeland Security (DHS) to determine what is and is not relevant for a threat.[149]

Fourth, a primary goal of PPPs should be streamlining common steps and procedures for private partners to disclose information regarding cyber-attacks to the government and other private partners.[150] At present, a great deal of inter-sector information sharing is done via CRDAs.[151] Historically, however, CRDAs were not intended for this purpose, and were instead meant as a stop-gap measure until the DHS could formulate and implement a stan-

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[146] *Id*. at 4.

[147] *Id*.

[148] Zheng and Lewis, *supra* note 125.

[149] The Air Force and its partners may consider making preexisting Information Sharing and Analysis Centers (ISACs) a party to PPPs. ISACs can offer "sector-specific perspectives on threats and incidents in addition to providing anonymization." *Id.* at 5.

[150] *Id*.

[151] *Id*.

dard program for information sharing.[152] Notably, the CRDA review process is notoriously time and asset-intensive, requiring the patience of private partners as their attorneys negotiate with counsel for the Air Force.[153] Accordingly, it is generally only the largest corporations that are capable of contemplating CRDAs with the Air Force, thus barring many smaller partners.[154] This loss of potential partnerships could be overcome with greater streamlining.

Finally, PPPs must shield private partners, to the maximum extent possible, from private liability for voluntarily shared information within the letter of the law.[155] In PPP contracts and through legislative efforts, voluntarily shared information about cyber-attacks must be protected from disclosure through FOIA requests and barred from use in civil litigation or regulatory proceedings.[156] To act otherwise would have an obvious chilling effect on private partners.[157] The Air Force and its partners must absolutely include in their PPP agreements a best efforts goal to qualify for the Protected Critical Infrastructure Information program run by the DHS.[158] Qualification for this program will help ensure that shared data is protected from FOIA requests and use in litigation and regulatory matters.[159] Nevertheless, the general consensus at present is that it is sometimes unclear which information is protected.[160] Clearly, without shedding further light on this uncertainty, the Air Force's private partners cannot be completely reassured of their safe harbor, and thus they may consider PPPs overly risky.

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[152] *Id.*

[153] *Id*.

[154] *Id*.

[155] *Id*. at 5 and 6.

[156] *Id*.

[157] *Id*.

[158] Zheng and Lewis, *supra* note 125.

[159] *Id*.

[160] *Id*.

VII. Conclusion

The term "silicon symbiosis" derives from mutually beneficial partnerships that encompass all forms of technology acquisition. Such partnerships are equal parts cooperation and coordination because PPPs require many stakeholders to align their interests. Critically, partners must squarely address the issue of data storage and sharing. Those partnerships that envision efforts to bolster cyber defenses will especially benefit from proper partnership structuring and terms governing data storage and transmittal. Only in this way can the Air Force further its technological superiority while strengthening ties with private partners.

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