

**UNITED STATES AIR FORCE**  
**GROUND ACCIDENT INVESTIGATION**  
**BOARD REPORT**



**24TH SPECIAL TACTICS SQUADRON**  
**24TH SPECIAL OPERATIONS WING**  
**POPE ARMY AIRFIELD, NORTH CAROLINA**



**TYPE OF ACCIDENT: Mountain Climbing Mishap**

**LOCATION: Boise, Idaho**

**DATE OF ACCIDENT: 8 October 2019**

**BOARD PRESIDENT: COLONEL THOMAS B. PALENSKE, USAF**

**Conducted IAW Air Force Instruction 51-307**

**EXECUTIVE SUMMARY  
UNITED STATES AIR FORCE  
GROUND ACCIDENT INVESTIGATION**

**MOUNTAIN CLIMBING MISHAP  
BOISE, IDAHO  
8 OCTOBER 2019**

On 8 October 2019, at approximately 1600 Mountain Daylight Time (MDT) at the Black Cliffs near Boise, Idaho, the Mishap Airman (MA), a 33-year old Technical Sergeant, sustained fatal injuries after he fell approximately 53 feet from the top of a cliff while accomplishing mountain rescue and mountain climbing training with the Mishap Team (MT). In addition to the MA, the MT included Mishap Witness One (MW1), Mishap Witness Two (MW2), Mishap Witness Three (MW3), and Mishap Witness Four (MW4). The MT members consisted of United States Air Force (USAF) Pararescuemen (PJs) and Combat Controllers (CCTs). All five members were assigned to the 24th Special Tactics Squadron, 24th Special Operations Wing, Pope Army Airfield, North Carolina.

On 6 October 2019, the MT arrived at the Boise Airport, Boise, Idaho, to begin a scheduled six-day training exercise to develop and improve climbing skills of the MT members. On 7 October 2019, the MT accomplished multiple climbs and rappels without incident, utilizing anchors constructed of bolts and chains permanently affixed to the cliff faces.

On 8 October 2019, at approximately 1100 MDT, the MT returned to the Black Cliffs to resume training. Each MT member accomplished two to four climbs that day, without incident. These climbs were accomplished utilizing permanently affixed anchors.

At approximately 1500 MDT, the MT members relocated to the mishap site for the final climb of the day. After arriving at the mishap site, MW2 led the climb up, attached a rope to a permanent anchor, and belayed the team while they ascended the cliff to the top ledge, without incident. The MA, MW3, and MW4 moved a few feet to the southeast to set up a rappel line to descend the cliff. The MA assessed that the permanently affixed anchor, which was below the cliff ledge, created an unsafe situation for the less experienced MT members. The MA identified a rock face in which he could use traditional rock climbing protection (“pro”). The MA emplaced two pieces of pro, built the anchor system, and clipped into it. MW4 clipped into the system and rappelled down to the ground without incident. MW3 then clipped into the rappel line and began his descent. When he was approximately 15 feet from the ground, one of the pieces of the newly affixed pro became unsecured from the rock face and caused MW3 to abruptly fall approximately six inches to two feet. Immediately thereafter, the second piece of pro became unsecured from the rock, causing MW3 to fall the remainder of the way to the ground. The MA, who was attached to the anchor system, was subsequently pulled off the ledge and landed at the base of the cliff.

The MT and emergency responders attempted resuscitation without success. The MA was pronounced deceased at approximately 1636 MDT due to injuries sustained from the fall.

**SUMMARY OF FACTS  
MOUNTAIN CLIMBING MISHAP  
8 OCTOBER 2019**

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## ACRONYMS AND ABBREVIATIONS

24 SOW	24th Special Operations Wing	FOUO	For Official Use Only
24 STS	24th Special Tactics Squadron	ft	Feet
5Ws	Who, What, Where, When, Why	FR1	First Responder One
724 STG	724th Special Tactics Group	FR2	First Responder Two
AFI	Air Force Instruction	FR3	First Responder Three
AFSAS	Air Force Safety Automated System	GA	Guardian Angel
AFSOC	Air Force Special Operations Command	GAIB	Ground Accident Investigation Board
AFTTP	Air Force Tactics, Techniques, and Procedures	GCS	Glasgow Coma Scale
AIB	Accident Investigation Board	GI	Gastrointestinal
AMGA	American Mountain Guide Association	GRG	Gridded Reference Graphic
ATC	Belay/Rappel Device	GS	Government Schedule (civilian employee)
AVPU	Alert Verbal Pain Unresponsive	GU	Genitourinary
BA	Bachelor of Arts	HEENT	Head Eyes Ears Nose Throat
BG	Blood Gas	Hg	Mercury
BP	Blood Pressure	HIPAA	Health Insurance Portability and Accountability Act
BUS	Business	HQ	Headquarters
Brig Gen (s)	Brigadier General (select)	Hrs	Hours
BVM	Bag Valve Mask	Hwy	Highway
Cam	Spring-Loaded Camming Device	IAW	In Accordance With
CASEVAC	Casualty Evacuation	ID	Idaho
CAST	Helocast	Ins	Insurance
CCT	Combat Controller	ISB	Interim Safety Board
CDC	Center for Disease Control	ITD	Improvised Tourniquet Device
CDI	Commander Directed Investigation	IVO	In the Vicinity of
CFETP	Career Field Education and Training Plan	JORT	Joint Operational Readiness and Training
CO	Cardiac Output	JTAC	Joint Terminal Attack Controller
CO2	Carbon Dioxide	L	Local
Col	Colonel	LA	Legal Advisor
CONOP	Concept of Operations	Land NAV	Land Navigation
CPR	Cardio Pulmonary Resuscitation	LASIK	Laser-Assisted in Situ Keratomileusis
Cric	Cricothyroidotomy	LE	Law Enforcement
CRO	Combat Rescue Officer	LN	Lane
CSAR	Combat Search and Rescue	M	Meters
CT	Court	MA	Mishap Airman
Defib	Defibrillation	Maj	Major
DO	Director of Operations	MATC	Mishap Airman Troop Chief
DOB	Date of Birth	MDT	Mountain Daylight Time
DR	Deficiency Reports	MED	Medical
E	East	METs	Mission Essential Tasks
ECG	Electrocardiogram	MI	Middle initial
e.g.	<i>exemplis gratis</i> , for example	Mm	Millimeter
E-leave	Emergency leave	MM	Medical Member
EMMA	Portable digital capnograph	MSgt	Master Sergeant
EMD	Emergency Dispatch	MT	Mishap Team
EMS	Emergency Medical Services	MTL	Mission Essential Task List
EMT	Emergency Medical Technician	MW1	Mishap Witness One
EPR	Enlisted Performance Report	MW2	Mishap Witness Two
Est	Estimated	MW3	Mishap Witness Three
ETCO2	End-Tidal Carbon Dioxide	MW4	Mishap Witness Four
E+V+M	Eyes plus Verbal plus Motor	MWDO	Mishap Witnesses' Director of Operations
F	Fahrenheit	N/A	Not Applicable
FOIA	Freedom of Information Act	NC	North Carolina

NCOIC	Non-commissioned Officer in Charge	STS	Special Tactics Squadron
Needle D	Needle Decompression	STTS	Special Tactics Training Squadron
OJ	Orange Juice	SUP	Superintendent
OPS	Operations	SUV	Sport Utility Vehicle
ORM	Operational Risk Management	TAC LZ	Tactical Landing Zones
OSI	Air Force Office of Special Investigations	TARs	Training Accomplishment Reports
OSS	Operations Support Squadron	TBI	Traumatic Brain Injury
OTC	Operator Training Course	TC	Training Circular
OTC	Over the Counter	Tech	Technical
Oz	Ounce	Tel	Telephone
PA	Pennsylvania	TDY	Temporary Duty
PCS	Permanent Change of Station	Trad	Traditional climbing
Pedi	Pediatric	TSgt	Technical Sergeant
PII	Personally Identifiable Information	TV	Television
Pitt	Pittsburgh	USAF	United States Air Force
PJ	Pararescueman	USC	United States Code
PJM	Pararescue Member	USSOCOM	United States Special Operations
PMF	Paramedic Refresher Requirement		Command
POC	Point of Contact	Vet	Veterinarian
POS	Position	w/	With
PPE	Personal Protection Equipment	WARNO	Warning Order
PR	Personnel Recovery	x	Times
PRK	Photo-Refractive Keratectomy	YDS	Yosemite Decimal System
Pro	Climbing Protection	Y/O	Year Old
PSAP	Public Safety Answering Point	Yrs	Years
Pt	Patient		
PTA	Prior to Arrival		
PTS	Pediatric Trauma Score		
QTB	Quarterly Training Board		
R	Recorder		
Rd	Road		
RDU	Raleigh-Durham International Airport		
RMT	Realistic Military Training		
ROE	Rules of Engagement		
ROSC	Return of Spontaneous Circulation		
RR	Respiratory Rate		
RTB	Returned to Base		
RTS	Revised Trauma Score		
SA	Situational Awareness		
SARBARN	Search and Rescue Barn		
SEA	Senior Enlisted Advisor		
SEI	Special Tactics Operators Advanced Life Support, <i>Et Cetera</i> , Institute		
SERE	Survival, Evasion, Resistance, and Escape		
SIB	Safety Investigation Board		
SIO	Single Investigating Officer		
SLCD	Spring-Loaded Camming Device		
SME	Subject Matter Expert		
SN	Serial Number		
SOF	Special Operations Forces		
SOP	Standard Operating Procedures		
SPO2	Peripheral capillary oxygen saturation		
SSgt	Staff Sergeant		
SSN	Social Security Number		
ST	Special Tactics		
STEMI	ST Segment Elevation Myocardial Infarct		

# SUMMARY OF FACTS

## 1. AUTHORITY AND PURPOSE

### a. Authority

On 15 October 2019, Major General Vincent K. Becklund, Deputy Commander, Air Force Special Operations Command (AFSOC), appointed Brigadier General (select) Thomas B. Palenske as Board President of a Ground Accident Investigation Board (GAIB) to investigate the death of the Mishap Airman (MA) during a mountain rescue training exercise near Boise, Idaho (Tab Y-3). The GAIB convened from 18 November 2019 to 9 December 2019, and was conducted in accordance with Air Force Instruction (AFI) 51-307, *Aerospace and Ground Accident Investigations*, dated 18 March 2019. Additional members of the GAIB included a Medical Member (Colonel), Legal Advisor (Major), Recorder (Master Sergeant (MSgt)), and Pararescue Member (MSgt) (Tabs Y-3, Y-5, Y-7 and Y-9).

### b. Purpose

In accordance with AFI 51-307, *Aerospace and Ground Accident Investigations*, this Ground Accident Investigation Board conducted a legal investigation to inquire into all the facts and circumstances surrounding this Air Force ground accident, prepare a publicly releasable report, and obtain and preserve all available evidence for use in litigation, claims, disciplinary action, and adverse administrative action.

## 2. ACCIDENT SUMMARY

On 8 October 2019, five members assigned to the 24th Special Tactics Squadron (24 STS), Pope Army Airfield, North Carolina, were participating in a six-day mountain rescue training event at the Black Cliffs near Boise, Idaho (Tabs K-10, K-13, R-64, R-111, and CC-20). At approximately 1345 Mountain Daylight Time (MDT), they arrived at the site of their final climb for the day (Tab R-96). Mishap Witness Two (MW2) led the ascent climb up approximately 53 feet, attached a rope to an anchor permanently affixed to the cliff face near the top, and belayed the team by holding the rope for the other climbers, without incident (Tabs R-15, R-44, and X-3). The Mishap Airman (MA) and Mishap Witness Four (MW4) moved a few feet to the southeast to set up a rappel, or controlled descent, to the bottom (Tab R-16, R-73, and R-97). The MA assessed that the permanently affixed anchor, which was below the cliff edge, created an unsafe situation for the less experienced climbers, and elected to establish a traditional rock protection anchor utilizing climbing protection gear (pro) (Tabs R-16, R-45, R-74, R-97, and CC-33 to CC-34). After he built it, the MA clipped into the anchor system for safety and assisted in establishing MW4 on the rappel line (Tab R-46 and R-75). MW4 rappelled to the bottom without incident (Tab R-46 and R-76). The MA, still secured into the anchor system, then assisted in securing Mishap Witness Three (MW3) on the rappel line (Tab R-46 and R-76). When MW3 was approximately 15 feet from the base of the cliff, one piece of pro became unsecured from the anchor rock, causing MW3 to abruptly fall approximately six inches to two feet (Tab R-77 and R-102). Immediately thereafter, the second piece of pro became unsecured from the rock, causing MW3 to fall the remainder of the distance to the base of the cliff (Tab R-97). After the anchor system failed, the MA was pulled

off the ledge and landed at the base of the cliff (Tab R-97 to R-98). Mishap Witness One (MW1) and MW2 rappelled down from the ascent line and administered first aid to the MA until the Ada County emergency medical service (EMS) personnel arrived (Tabs R-17, R-48, R-77, R-98, and X-4). They later pronounced the MA deceased at the scene due to injuries sustained in the fall (Tab X-4).

### **3. BACKGROUND**

#### **a. Air Force Special Operations Command (AFSOC)**

AFSOC is one of ten major commands of the United States Air Force (USAF), and the Air Force component of United States Special Operations Command (USSOCOM), a unified combatant command (Tab CC-3). AFSOC's mission is to provide USAF special operations forces (SOF) for worldwide deployment and assignment to regional unified commands (Tab CC-4). USAF SOF are composed of highly trained, rapidly deployable Airmen, conducting global special operations missions ranging from precision application of firepower to infiltration, exfiltration, resupply, and refueling of SOF operational elements (Tab CC-4). AFSOC has more than 20,800 active duty, Air Force Reserve, Air National Guard, and civilian personnel (Tab CC-4). AFSOC's flying units operate fixed and rotary-wing aircraft, including the CV-22B Osprey, AC-130 gunships, EC-130 Commando Solo, MC-130 variants, MQ-9 Reaper, U-28A Draco, C-145A, and C-146A Wolfhound (Tab CC-4 and CC-21 to CC-22).



#### **b. 24th Special Operations Wing (24 SOW)**

The 24 SOW is an active duty special operations wing assigned to AFSOC and based at Hurlburt Field, Florida (Tab CC-7). It is the only Special Tactics (ST) wing in the USAF (Tab CC-7). The primary mission is to provide ST forces for rapid global employment to enable airpower success through airfield reconnaissance, assessment and control, personnel recovery, joint terminal attack control (JTAC), and environmental reconnaissance (Tab CC-7). The 24 SOW is also USSOCOM's tactical air and ground integration force (Tab CC-7).



#### **c. 24th Special Tactics Squadron (24 STS)**

The 24 STS is assigned to the 724th Special Tactics Group (Tab CC-8). Its mission is to provide training and technical assistance in the development of tactics, techniques, and procedures to ensure standardization across the AFSOC ST community (Tab CC-13).





**d. Pararescueman (PJ)**

USAF PJs are specifically organized, trained, equipped, and postured to conduct full spectrum Personnel Recovery (PR), including both conventional and unconventional combat rescue operations (Tab CC-23). Their mission is to rescue, recover, and return American and Allied forces in times of danger or extreme duress, such as those shot down or isolated behind enemy lines and surrounded, engaged, wounded, or captured by the enemy (Tab CC-23).



**e. Combat Controller (CCT)**

USAF CCTs are assigned to ST units to deploy, undetected, into combat and hostile environments to establish assault zones or airfields, while simultaneously conducting air traffic control, fire support, command and control, direct action, counter-terrorism, foreign internal defense, humanitarian assistance, and special reconnaissance in the joint area (Tab CC-25). CCTs maintain air traffic control qualification skills throughout their careers, and many are qualified in JTAC procedures, as well as other SOF skills, such as infiltration, combat dive, and demolition (Tab CC-26).



**f. Sport Climbing**

Sport climbing consists of clipping a nylon sling called a “quickdraw” into preplaced bolts with metal hangars on the rock face (Tab CC-33). The climber then clips the rope through the quickdraw so they will not impact the ground if they fall (Tab CC-33).



**g. Traditional Climbing**

Traditional climbing involves carrying and placing climbing protection (pro), such as cams and nuts to anchor the climber via the quickdraw, instead of clipping into preplaced bolts as in sport climbing (Tab CC-33).



**h. Top Rope Climbing**

Top rope climbing is where a climber is attached to a rope that passes up and through an anchor system at the top of the climb, and down to a belayer at the base of the climb (Tab CC-33).



**i. Climbing Protection (Pro)**

Pro consists of either active or passive pro (Tab CC-34). Active pro, such as spring-loaded camming devices (cams), has moving parts that expand and contract to fit a placement, allowing the curves of the cam to wedge into the pocket or crack in the rock to secure an anchor (Tab CC-34). Passive pro, such as nuts, has no moving parts and depends on the size and shape to fit into a crack or fissure in the rock to secure an anchor (Tab CC-34).

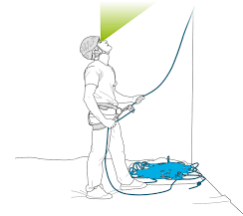


### **j. Shock Loading**

Shock loading is a sudden deceleration imposed on a system from excessive weight (Tab CC-34).

### **k. Belaying**

Belaying is a method of managing a climbing rope in a way that, if one person falls, another member, known as the belayer (Tab CC-34), can halt the fall. Typically, one person climbs up at a time, while being belayed from above or below (Tab CC-34). The belayer manipulates the rope so that friction can be applied to halt a fall (Tab CC-34). Belay techniques are also used to control the descent of personnel and equipment on fixed rope installations and for additional safety on rappels (Tab CC-34).



### **l. Rappelling**

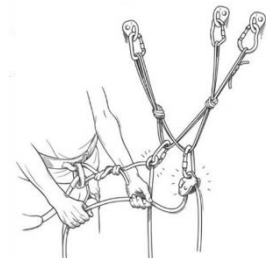
Rappelling is a method of descent from a rock face or other near-vertical surface using a rope that runs through a descent-control device attached to the climber and fixed at a higher point (Tab CC-34).

### **m. Climbing Anchors**

Climbing anchors are a system made up of individual anchor points linked together to create a master point that the rope and/or climbers clip into to securely attach to the rock (Tab CC-33).

### **n. Quad Anchor**

A quad anchor uses four strands of anchor-rated cordelette, or small diameter anchor rope, to provide anchor points for two- to four-piece anchors, but is most often used to construct a two-piece anchor (Tab CC-34). The quad is a self-equalizing anchor system that adjusts to off-center loading (Tab CC-34). The quad is quick to tie, works in most situations, and provides separate clip-in points for the belayer and climber (Tab C-34).



### **o. Yosemite Decimal System (YDS)**

The Yosemite Decimal System (YDS) is a system to rate the difficulty of walks, hikes, and climbs, primarily used by mountaineers in the United States and Canada (Tab CC-35). Class 5 climbs are considered technical rock climbs, ranging in difficulty from 5.0 to 5.15 (Tab CC-35).

## **4. SEQUENCE OF EVENTS**

### **a. Mission**

The MT consisted of five USAF ST Airmen: three PJs (the MA, MW1, MW2) and two CCTs (MW3, MW4), all of whom were assigned to the 24 STS (Tab K-10 to K-11). At the time of the mishap, they were conducting a training mission consisting of rock climbing and mountain rescue techniques (Tab R-110 to R-111 and R-126). MW1 was the MT leader (Tab R-11). The purpose

of training was for the PJs to maintain proficiency in traditional and sport climbing techniques, while conducting familiarization training in a high angle environment for the CCTs (Tab R-126). The training was scheduled from 6 to 11 October 2019 at the Black Cliffs near Boise, Idaho (Tab K-13 to K-14). MW2 completed a risk assessment worksheet enumerating the potential risks and risk-mitigating actions, which the Mishap Witnesses' Director of Operations (MWDO) approved (Tab K-3 to K-4). MW2 developed a Warning Order (WARNO) that described the details of the training, concept of operations, execution, administrative details, responsibilities, weather forecast (Tabs K-5 to K-7, K-9 to K-24, and R-42). The WARNO was approved at the appropriate level (Tab R-110).

#### **b. Timeline of Mishap**

On 6 October 2019, the MT arrived at Boise Airport in Boise, Idaho, to conduct proficiency rock climbing and mountain rescue training (Tabs K-13, R-126, and V-2.2). After the team secured rental cars and all MT members checked into a hotel in Boise, MA and MW2 traveled to the nearby training site at the Black Cliffs to conduct a site survey, identify the climbing routes, and refine the training plan for the following day (Tabs K-11, K-13, K-17, R-15, and V-2.2).

On 7 October 2019, at approximately 1000 MDT, the MT departed the hotel and traveled to the training site arriving at approximately 1030 MDT (Tabs R-15 and K-14). The training plan for this day utilized top roping, sport, and traditional climbing techniques to re-familiarize the MT while mitigating risks (Tab R-14 and R-41). The top ropes used for each of the climbs were anchored into the cliff by permanent climbing anchors, comprised of two metal hangers and chains bolted to the rock face, located at various points along the cliff (Tabs R-79, R-96, and V-2.3). The MT divided into two groups of two or three climbers, made several climbs up and rappelled or lowered down without incident, and completed the training at approximately 1600 MDT (Tabs R-14 and K-14).

On 8 October 2019, the MT had breakfast in the hotel lobby, departed the hotel at approximately 1000 MDT, picked up lunch, and drove to the training site at the Black Cliffs (Tab R-15, R-43, and R-96).

The MT arrived at the training site at approximately 1100 MDT (Tab R-43). The MA and MW2 accomplished medical and safety briefings for the MT (Tab V-5.3 to V-5.4 and V-6.3 to V-6.4). The MT checked their pro and determined which routes they intended to climb (Tab R-96). MW3 led the first climb and set up a top rope on fixed anchors near the routes they climbed that morning (Tab V-1.5). Each climber accomplished two to four climbs, rated at Yosemite Decimal System (YDS) 5.7, without incident, prior to moving to the last climbing location of the day (Tabs R-12, R-15, V-1.5, and V-2.3).



**Figure 1 (Tabs R-54, R-58, Z-9, and CC-27 to CC-28)  
Approximate Location of the Mishap Site at the Black Cliffs, Boise, Idaho**

After lunch, the MA, MW2, and MW4 accomplished one additional climb while MW1 and MW3 repacked the climbing gear and prepared to move to the mishap site, depicted in Figure 1 (Tab R-15 and R-44). Between 1430 to 1500 MDT, the MT arrived at the mishap site to begin the last climb of the day (Tab R-15 and R-44).

The MT's objective for the final climb was to get the entire MT to the top of the cliff by way of a YDS 5.7 grade climbing route (Tabs R-15 and CC-27 to CC-28). The MT planned for MW2 to lead climb the route, placing traditional pro, with MW4, the MA, MW3, and MW1 following in that order (Tab R-15, R-44 to R-45, and R-73 to R-74). After the entire MT made it to the top, each member would rappel down (Tab R-15).

MW2 successfully led the route, reached the anchor bolts at the top of the climb, set his personal anchoring system, and set up a topline belay for the other climbers to follow (Tab R-15 and R-44). MW2 then set up a separate safety anchor at the top of the route, allowing the remaining climbers to secure themselves after finishing their climb (Tab R-44).

MW4 climbed to the top without incident with an additional rope clipped to the back of his harness, which was intended to set up a rappel line while the remaining climbers completed the climb (Tab R-46 and R-96). MW2 had MW4 secure himself to a set of bolts anchored to the rock face (Tab R-44). The MA climbed the route without incident (Tab R-44). The MA discussed with MW2 the anchors that were available to setup a retrievable rappel (Tab R-45). MW2 identified adjacent anchor bolts and chains available to use for a rappel (Tab R-45).

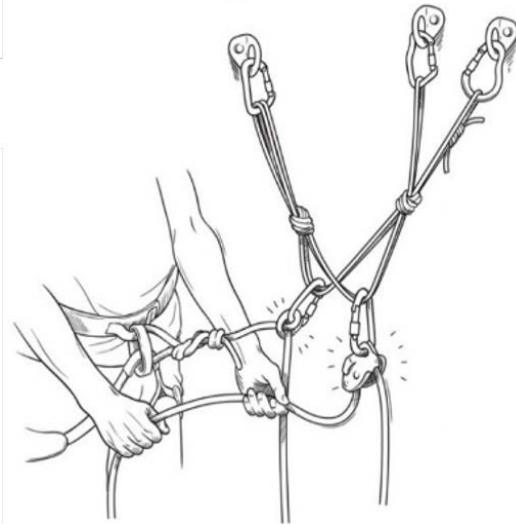


**Figure 2 (Tabs V-5.3, Z-3, and CC-31)**

**Basalt rock at the Black Cliffs near Boise, Idaho, in the general location of where the MA anchored the pro during the mishap**

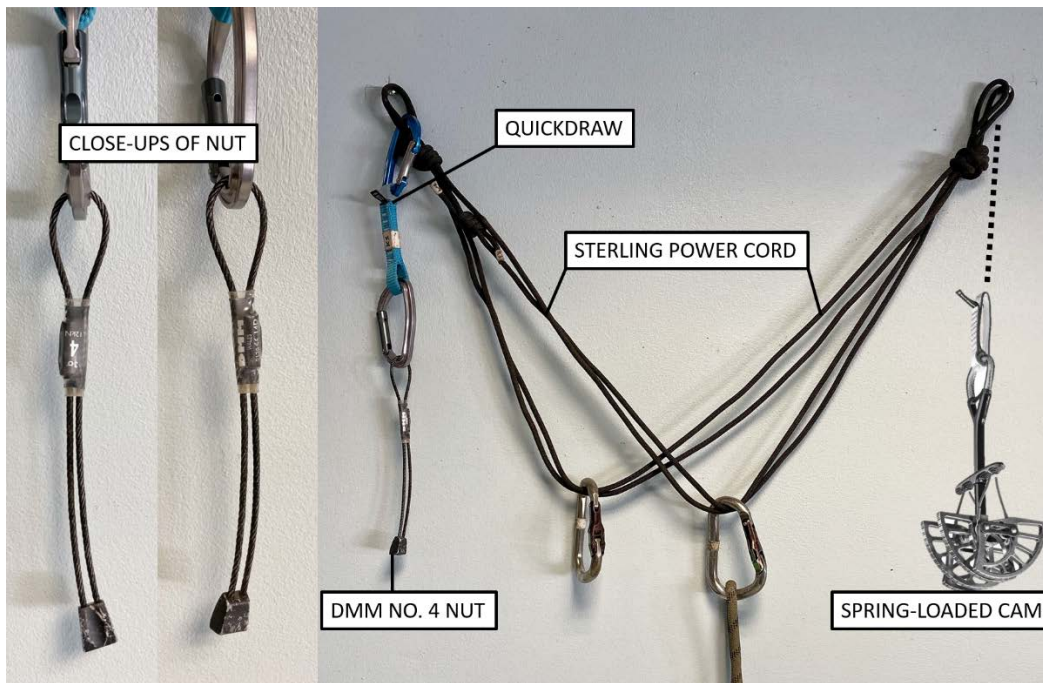
The MA initially used the chains identified by MW2 as his anchor with the intent to use them to rappel (Tab R-15 to R-16 and R-97). After realizing there was insufficient room to rappel without shock loading the rope, the MA decided against it because the difficult edge transition created unnecessary risk for the less experienced members of the MT (Tab R-16 and R-97). The MA identified some rocks higher up and approximately six feet away from the edge, which he deemed suitable for a traditional rock pro anchor (Tab R-45). By utilizing these rocks, the MT members could lean back, gradually weight the anchor, and establish the hand used for engaging the brake strand of the rope before they began to rappel, which allowed for a safer edge transition (Tab R-16 and R-45). MW2 agreed with the MA that this was a safer course of action (Tab R-45).

Before the MA placed his anchor pro, he tapped on the rocks to ensure they did not sound hollow or appear to be loose (Tab R-26). The MA then built a traditional rock pro anchor and secured himself to it (Tab R-45). The MA chose to construct a quad anchor made of Sterling PowerCord, with one cam of unknown size on the right and one DMM number four sized nut attached with a blue Petzl quickdraw on the left, shown in Figure 4 (Tabs R-22, R-45, R-74, R-97, R-100, V-2.14, Z-5, and CC-35). The exact placement at the mishap site of both the cam and nut used for the anchor was not able to be determined (Tab V-1.9, V-1.17, V-5.3, and V-6.2 to V-6.3).



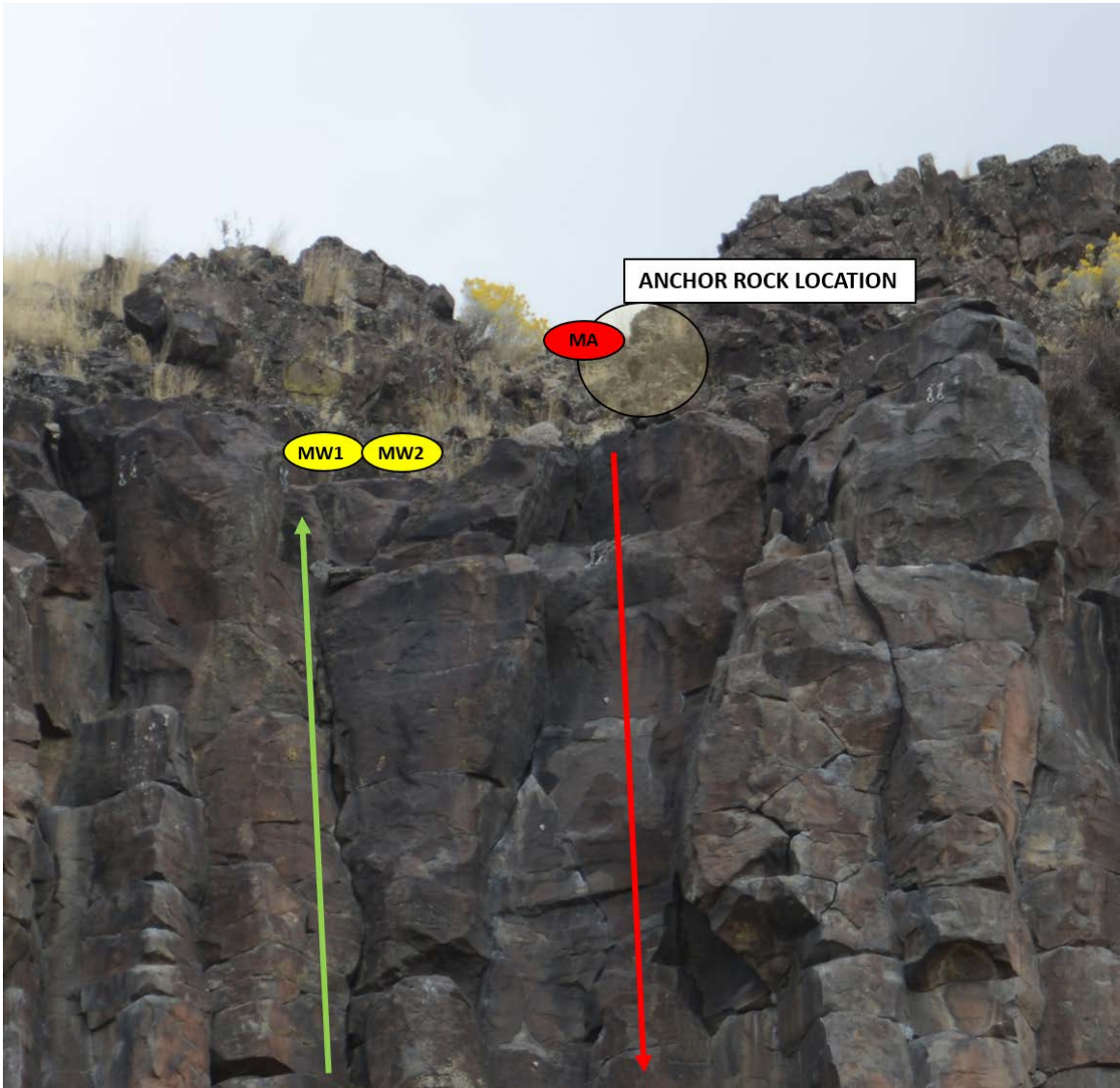
**Figure 3 (Tabs Z-5 and CC-34)**  
**Illustration of a climber clipped into a quad anchoring system**

MW4 removed the rappel rope from the bolted anchors and chains and fed it up to the MA (Tab R-46 and R-97). The MA tied off the center of the rope with a figure “8” knot on a bight, or section of rope folded on itself to create a loop, placed an additional carabiner through the knot, and attached to the anchor (Tab R-46, R-55, and R-102). The MA conveyed the importance of weight testing the anchor to MW3 and MW4 (Tab R-45 to R-46 and R-76). MW4 weight tested the anchor system five or six times (Tab R-97).



**Figure 4 (Tabs R-22, V-2.14, and Z-15)**  
**Quad anchoring system used in the mishap with nut still attached (left), however, the cam was not recovered (the cam depicted here (right), which would have been attached via quickdraw, is for reference for the way it was likely setup during the mishap climb)**

MW1, the last climber on the ascent route, completed the climb and discussed techniques to rappel from the chains over a difficult edge transition with the MA (Tab R-16). MW1 decided he would demonstrate the edge transition and review such techniques after the other MT members were safely on the ground (Tab R-16 and R-45). MW1 discussed with MW2 alternate areas to place pro at the top of the route they just climbed (Tab R-46). While all MT members were at the top, the MA rigged the anchor and rappel line (Tab R-16). MW4 weight tested the system, rappelled to the ground without incident, disconnected from the system, and let the other MT members know he was off rappel (Tab R-16, R-45 to R-46, R-76, and R-97).



**Figure 5 (Tabs R-16, R-46 to R-47, S-17, V-1.9 to V-1.10, V-6.2 to V-6.3, and Z-11)  
Approximate positions of the MT and rappel line during mishap (side view)**

MW3, the next climber on rappel, clipped into the rappel line system, unclipped from the quad, and weight checked the anchor (Tab R-76 and R-97). As MW3 transitioned from the top of the cliff to the next lower ledge, MW3 felt a shift in the anchor, and asked the MA if the system was

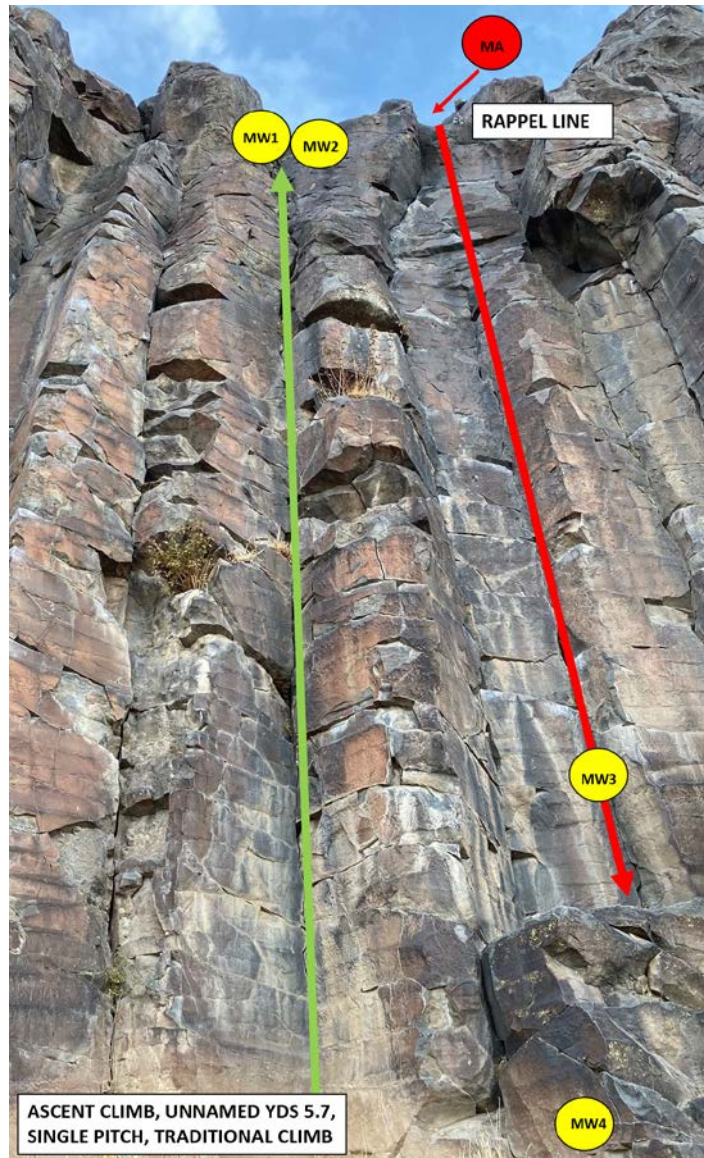
still secured (Tab R-53 and R-76). The MA rechecked the anchor to ensure proper pro placement, and explained the shift was likely due to the addition of weight on the pro and that it was the pro more securely gripping the rock (Tab R-76). MW3 then resumed his rappel (Tab R-77). When MW3 was approximately 15 feet above the ground, he felt the rope give slightly, causing him to fall between six inches to two feet, before he immediately fell the remaining distance to the ground (Tab R-77, R-97, and R-102). The MA, who was attached to the rappel line anchor system, was then pulled off the ledge and to the ground (Tab R-77).



**Figure 6 (Tabs R-16, R-46 to R-47, V-1.9 to V-1.10, V-6.2 to V-6.3, Z-3, and Z-12)  
Approximate positions of the MT and rappel line during mishap (top view)**

From the top of the cliff, MW1 and MW2 heard a crash and loud crack, observed the anchor fail and blow out from the rock, and saw the MA being pulled over the edge of the cliff (Tabs R-16, R-46 to R-47, and V-1.9 to V-1.10). From the base of the cliff, MW4 observed MW3 fall to the ground, the entire rope system come down, and the MA pulled down with it (Tab R-97). The MA fell approximately 53 feet from the anchor ledge to the base of the cliff (Tab CC-34).





**Figure 7 (Tabs R-16, R-46 to R-47, R-77, R-97, V-1.9 to V-1.10, Z-4, and Z-10)  
Approximate positions of the MT and rappel line during mishap (base view)**

### **c. Rescue Operation**

The MA landed approximately two feet away from MW4, where he first impacted a rock surface on his left side, then came to rest in a prone position (Tab R-47, R-77, and R-98). MW4 immediately stabilized the MA's neck and performed a pulse and breathing assessment (Tab R-77). MW4 initially felt a carotid pulse for approximately 20 seconds, but could not assess respiration due to the MA being in a prone position (Tab R-47 and R-98). The MA lost palpable pulses and MW4 notified the rest of the team (Tab R-98). MW3 retrieved the Skedco flexible litter system from the MT's equipment and configured it near the MA (Tab R-77).

MW1 instructed MW4 and MW3 to delay rolling the MA until enough responders were present to safely move the patient while maintaining cervical spine immobilization (Tab R-16 to R-17).

MW2 provided verbal instructions to MW4 in maintaining cervical spine immobilization and keeping the MA's airway open (Tab R-47). MW1 and MW2 fixed the ascent line rope system, established a single rappel line, and MW1 descended, followed by MW2 (Tab R-16 and R-47). MW1 sprinted to the MA and was the first PJ to render aid (Tab R-16).

Upon arrival, MW1 assumed the lead medical responder role and performed an initial assessment, in which MW1 did not feel a pulse or observe signs of respiratory effort (Tab R-16). MW1 directed the MT to reposition the MA into a supine position in a coordinated manner, and the MT transferred the MA onto the prepared Skedco litter (Tab R-47 and R-86). MW2 arrived on scene near the time of the litter transfer, and MW1 and MW2 began their medical treatment (Tab R-77). The MT coordinated cardio-pulmonary resuscitation (CPR) procedures (Tab R-78 and R-98). During the course of administering life-saving measures, a MT member unclipped the MA's personal anchor system from the quad and the cam from the anchor (Tabs R-22 and V-2.14).

At approximately 1606 MDT, MW4 made a 911 emergency call to relay the situation (Tabs R-77 and X-4). Ada County emergency medical service (EMS) was dispatched at approximately 1609 MDT (Tab X-4). MW1 requested Life Flight for aeromedical transport and the dispatch reported that they were on standby (Tab R-17).

MW1 unsuccessfully attempted oral intubation twice while the MT maintained cervical spine immobilization, then transitioned to an emergent surgical airway (Tab R-17). MW1 established and secured a surgical airway and the MT initiated bagged respirations and resumed chest compressions (Tab R-17).

MW1 and MW2 suspected a collapsed lung due to difficulty in providing bagged ventilation, and MW2 performed bilateral needle decompression procedures (Tab R-48). Right chest wall needle decompression resulted in no immediate rush of air or presence of blood (Tab R-48). Subsequently, a left chest wall needle decompression with return of blood led MW2 to assess that the MA had internal injuries (Tab R-48).

MW3 descended to a more visible location at the base of the cliff and closer to the road to meet the first responders who arrived at the mishap site parking lot downhill from the mishap site at 1623 MDT (Tabs R-77 and X-4). MW3 established contact with the responders, informed them that the MA did not have a pulse, and requested Life Flight aeromedical transport, however, it was not launched based on the MA's status and it did not have a hoist to move him (Tab R-17 and R-78). The MT continued to perform CPR until EMS arrived at the mishap site at 1632 MDT (Tabs R-48 and X-4).

EMS responders placed medical monitor pads to assess the MA's heart rhythm and recorded no electrical activity (Tabs R-17, R-49, and X-4). The EMS team performed CPR (Tab X-4). MW1 transferred resuscitation team lead responsibility to the EMS team, and called his troop chief to provide a situation report (Tab R-17). The EMS team reassessed the MA's heart rhythm, a second time, with no recorded electrical activity (Tabs R-49, R-78, R-98, and X-4). Resuscitation attempts were stopped by the EMS team and the MA was pronounced deceased at approximately 1636 MDT with an initial primary impression of "Traumatic Circulatory Arrest" (Tabs R-49, R-78, R-98, and X-4).

## **5. MAINTENANCE**

Not applicable.

## **6. EQUIPMENT, VEHICLES, FACILITIES, AND SYSTEMS**

### **a. Function**

There is no evidence to indicate any rock climbing and mountaineering equipment malfunctioned at the time of the mishap.

### **b. Maintenance History**

Maintenance history is not maintained, or required, for rock climbing or mountaineering equipment (Tab CC-35).

### **c. Condition**

All climbing equipment recovered from the mishap site was intact, in serviceable condition, and functioning properly (Tab CC-35). The MT last observed the mishap cam in the rock face before the anchor failed (Tabs V-1.9, V-2.4, and CC-35). They did not positively identify the mishap cam at the mishap site (Tabs V-1.9, V-2.4, and CC-35).

## **7. ENVIRONMENTAL CONDITIONS**

### **a. Forecast Weather**

The forecasted weather for 8 October 2019 was mostly sunny with a high of 69 degrees Fahrenheit (F) and a low of 43 degrees F (Tab K-12).

### **b. Observed Weather**

At the time of the mishap, the observed weather was fair with mostly sunny skies, a temperature averaging 56 degrees F, and 49 percent humidity (Tab F-3 and F-4).

### **c. Other Environmental Conditions**

The Black Cliffs climbing area is located in the vicinity of Boise, Idaho, approximately 11 miles from the Boise Airport off Idaho State Highway 21 (Tab CC-37). Wind speeds averaged 9.6 miles per hour (Tab F-3).

### **d. Restrictions, Warnings, and Procedures**

There were no restrictions or warnings for the Black Cliffs area at the time of the mishap.

## 8. PERSONNEL QUALIFICATIONS

PJs must complete the USAF PJ Apprentice Course, be a qualified 3-level PJ, and successfully complete the 5-level tasks in the PJ Career Field Education and Training Plan (CFETP) 1T2XX Part 6, in order to be qualified to conduct climbing and mountain rescue techniques without a PJ instructor present (Tabs G-47 to G-48 and K-25 to K-133). The source publications for the PJ CFETP line items relating to mountain climbing techniques are Air Force Tactics, Techniques, and Procedures (AFTTP) 3-3.Guardian Angel (GA), *Combat Fundamentals—Guardian Angel*, 21 October 2016, and United States Army Training Circular (TC) 3-97.61, *Military Mountaineering*, 26 July 2012 (Tab BB-3 to BB-313 and BB-315 to BB-401).

CCTs do not have a requirement to qualify on climbing, mountaineering, or performing mountain rescue techniques evidenced by CFETP 1C2XX (Tab T-123 to T-146).

As of 31 October 2019, PJs (1T2XX) and CCTs (1C2XX) officially changed Air Force Specialty Codes (AFSCs) to Air Force Special Warfare: PJs (1Z1XX) and CCTs (1Z2XX) (Tab BB-402 to BB-406).

### a. Mishap Airman (MA)

The MA was a fully qualified 7-level PJ Craftsman (Tab G-125 to G-126). He has been a qualified PJ since 2013 and was assigned to the 24 STS in 2017 (Tab G-125 to G-126). He completed several mountain rescue courses, including the Silverton Avalanche School Avalanche Rescue and Alpine Rescue Course and the Leading Edge Concepts Adaptive Rescue Training Course (Tabs G-93, G-110, R-110, and T-91). He was also a graduate of the 724th Special Tactics Group (724 STG) Operator Training Course (OTC) (Tab R-110). He posthumously received the Air Force Meritorious Service Medal for his expertise as a team leader in a joint-service environment, development of expanded rescue capabilities, management of his flight's specialized weapons, leadership in live-fire and close-quarters combat training, and role as the primary technical rescue specialist in a deployment for a highly-sensitive national mission (Tab CC-35).

### b. Mishap Witness One (MW1)

MW1 is a Special Tactics Team Leader, fully qualified 7-level PJ Craftsman (Tab T-3). He has been a qualified PJ since 2008 and was assigned to the 24 STS in 2014 (Tab R-8). He completed several mountain rescue courses, including Leading Edge Concepts Adaptive Rescue Training Course and Special Tactics Operators Advanced Life Support, Et Cetera, Institute (SEI) (Tab R-9). He was also a graduate of the 724 STG OTC (Tab R-8).

### c. Mishap Witness Two (MW2)

MW2 is a Special Tactics Operator and a fully qualified 5-level PJ Journeyman (Tab T-71). He has been a qualified PJ since 2016 and was assigned to the 24 STS in 2018 (Tabs R-35 and T-71). He completed a mountain rescue course at Leading Edge Concepts Adaptive Rescue Training (Tab T-91). He was also a graduate of the 724 STG OTC (Tab R-36 to R-37).

#### **d. Mishap Witness Three (MW3)**

MW3 is a Special Tactics Operator and a fully qualified 5-level CCT Journeyman (Tab T-121). He has been a qualified CCT since 2014 and was assigned to the 24 STS in 2017 (Tab T-121). He was also a graduate of the 724 STG OTC (Tab R-67). He had minimal previous climbing or mountain rescue training experience (Tab R-67).

#### **e. Mishap Witness Four (MW4)**

MW4 is a Special Tactics Operator and a fully qualified 7-level CCT Craftsman (Tab T-175 and T-176). He has been a qualified CCT since 2011 and was assigned to the 24 STS in 2014 (Tabs T-175, T-176 and R-95). He was also a graduate of the 724 STG OTC (Tab R-110). He had minimal previous climbing or mountain rescue training experience (Tab R-94).

### **9. MEDICAL FACTORS**

#### **a. Qualifications**

At the time of the mishap, all MT members were medically qualified for duty without restrictions (Tab X-3).

#### **b. Health**

Review of the MA's medical records did not identify any physical or mental health attributes relevant to the mishap (Tab X-3). Review of the 72-hour and seven-day history statements did not demonstrate illnesses, injuries, unusual habits, behaviors, or stressors for MW1, MW2, MW3, or MW4 (Tab R-133 to R-172).

Toxicology analysis of the MA, MW1, MW2, MW3, and MW4 did not show alcohol, prescription medications, or common drugs of abuse as factors in the mishap (Tab X-4).

#### **c. Injuries and Pathology**

The MA fell approximately 52.5 ft (16 m) vertically from the anchor point onto a rock and hard packed dirt surface at the base of the cliff (Tab CC-34). Ada County EMS paramedics terminated resuscitative efforts and pronounced the MA dead at 1636 MDT (Tab X-4). The Ada County Coroner's Office performed an autopsy and determined the cause of death to be traumatic blunt force injuries due to a fall from a cliff while rock climbing (Tab X-3).

#### **d. Lifestyle**

There is no evidence to indicate any lifestyle factors were relevant to the mishap.

## 10. OPERATIONS AND SUPERVISION

### a. Operations

The operations tempo for the team during the training trip was low, with the team departing daily for the training site at 1000 MDT, commencing training at 1030 MDT, and stopping training each day at 1600 MDT (Tab K-14). The intent was to conduct climbing proficiency for the PJs and cross training for the CCTs, increasing in complexity and difficulty over the course of the six-day training period (Tabs K-10, K-13, and R-14).

### b. Supervision

Members of 24 STS leadership were involved in the planning process and operational risk management assessment, with the overall risk assessed as a “medium,” and approved by the MWDO (Tab K-3 to K-4). MW2 was the trip lead and MW1 was the overall Team Leader and Noncommissioned Officer-in-Charge (Tab K-11).

## 11. GOVERNING DIRECTIVES AND PUBLICATIONS

### a. Publicly Available Directives and Publications Relevant to the Mishap

- (1) AFI 51-307, *Aerospace and Ground Accident Investigations*, 18 March 2019
- (2) AFI 91-204\_AFGM2019-01, *Safety Investigation and Hazard Reporting*, 30 July 2019

**NOTICE:** All directives and publications listed above are available digitally on the Air Force Departmental Publishing Office website at: <http://www.e-publishing.af.mil>.

### b. Other Directives and Publications Relevant to the Mishap

- (1) TC 3-97.61, *Military Mountaineering*, 26 July 2012
- (2) AFTTP 3-3.GA, *Combat Fundamentals—Guardian Angel*, 21 October 2016
- (3) USSOCOM Manual 350-34, *U.S. Special Operations Forces Baseline Interoperable Standards – Mountaineering Operations*, 2017

16 March 2020

THOMAS B. PALENSKE, Colonel, USAF  
President, Ground Accident Investigation Board

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