

3rd SPECIAL OPERATIONS SQUADRON



LINEAGE

Photographic Section No. 1 organized, 4 Apr 1918
Demobilized, 3 Jul 1919

1 Photographic Section authorized, 15 Aug 1919
Organized, 27 Sep 1919

Photographic Section No. 1 Reconstituted, and consolidated with 1 Photographic Section, 1924

Redesignated 3rd Observation Squadron, 1 Jun 1937
Redesignated 3rd Observation Squadron (Medium), 13 Jan 1942
Redesignated 3rd Observation Squadron, 4 Jul 1942
Redesignated 3rd Tactical Reconnaissance Squadron, 11 Aug 1943
Disbanded, 2 Jul 1944
Reconstituted and redesignated 3rd Strategic Reconnaissance Squadron, Medium, 9 May 1952
Activated, 28 May 1952
Inactivated, 1 Jul 1958

3rd Air Commando Squadron constituted and activated, 5 Apr 1968
Organized, 1 May 1968
Redesignated 3rd Special Operations Squadron, 1 Aug 1968
Inactivated, 15 Sep 1969

3rd Tactical Electronic Warfare Training Squadron constituted, 13 May 1976
Activated, 15 May 1976

3rd Strategic Reconnaissance Squadron, Medium, 3rd Special Operations Squadron and 3rd Tactical Electronic Warfare Training Squadron consolidated, 19 Sep 1985. Consolidated squadron retained 3rd Tactical Electronic Warfare Training Squadron designation.

Inactivated, 30 Sep 1991
Redesignated 3rd Special Operations Squadron, 20 Oct 2005
Activated, 28 Oct 2005

STATIONS

Ourches, France, 4 Apr 1918 (detachment at Flin, France, 15-28 Jun 1918)
Saints, France, 29 Jun 1918 (detachment at Ourches, France, until mid-Jul 1918)
Francheville, France, 9 Jul 1918
Moras Ferme (near La Ferte-sous Jouarre), France, 25 Jul 1918
Lizy-sur-Ourcq, France, 4 Aug 1918
Coincy, France, 10 Aug 1918
Chailly-en-Brie, France, 13 Aug 1918
Toul, France, 24 Aug 1918
Remicourt, France, 19 Sep 1918
Julvecourt, France, 3 Nov 1918
Vavincourt, France, 28 Nov 1918
Colombey-les-Belles, France, 5 May 1919
port of embarkation, France, May-Jun 1919
Garden City, NY, 20 Jun-3 Jul 1919
Fort Bliss, TX, 27 Sep 1919
Kelly Field, TX, 2 Jul 1921
Fort Bliss, TX, 24 Jun 1922
Fort Sam Houston, TX, 22 Jun 1926
Brooks Field, TX, 31 Oct 1931
Langley Field, VA, 20 Jun 1937
Camp Cooke, CA, 22 Apr 1942
Blythe, CA, 30 May 1942
Keystone Heights, FL, 21 Jan 1943
Alachua Army Airfield, FL, 3 Feb 1944
Orlando AB, FL, 6 Mar-2 Jul 1944
Lockbourne AFB, OH, 28 May 1952-1 Jul 1958
Nha Trang Airport, South Vietnam, 1 May 1968-15 Sep 1969
Camp O'Donnell, Philippines, 15 May 1976-30 Sep 1991
Nellis AFB, NV, 28 Oct 2005
Cannon AFB, NM

ASSIGNMENTS

I Corps Observation Group, Apr 1918
First Army Observation Group, Nov 1918-Apr 1919
Unkn, Apr-3 Jul 1919. 1 Wing, 27 Sep 1919
1st Surveillance Group, c. 12 Nov 1919
Eighth Corps Area, Jun 1922 (in association with 12 Observation Squadron, affiliated with 1st Cavalry Division, Jun 1922-Jun 1926, and with 2 Division, Jun 1926-Oct 1931)
3rd Attack Group, 8 May 1929
12th Observation Group, attached 1 Oct 1930, assigned 31 Oct 1931, attached 1 Mar 1935
Eighth Corps Area, 1 Jun 1937

Third Corps Area, 20 Jun 1937 (attached to Coast Artillery School)
Coast Artillery School, 1939
I Air Support Command, 1 Sep 1941 (attached to Coast Artillery School to 5 Apr 1942)
73rd Observation Group, 12 Mar 1942
Second Air Force, 12 Aug 1942 (attached to II Ground Air [later, II Air] Support Command to
23 Sep 1942)
IV Ground Air (later, IV Air) Support Command, 7 Sep 1942
Army Air Forces School of Applied Tactics, 21 Jan 1943
Air Support Department, AAF School of Applied Tactics (later, Tactical Air Force, AAF
Tactical Center), 18 Feb 1943
Tactical Air Division, AAF Tactical Center, 4 Jan 1944
Orlando Fighter Wing, 20 Feb 1944
AAF Tactical Center, 28 Mar-2 Jul 1944
26th Strategic Reconnaissance Wing, 28 May 1952-1 Jul 1958
Pacific Air Forces, 5 Apr 1968
14th Air Commando (later, 14th Special Operations) Wing, 1 May 1968-15 Sep 1969
3rd Tactical Fighter Wing, 15 May 1976
6200th Tactical Fighter Training Group, 1 Jan 1980-30 Sep 1991
16th Operations Group, 28 Oct 05
27th Operations Group

ATTACHMENTS

432nd Observation [later, 432nd Reconnaissance; 432nd Tactical Reconnaissance] Group, 27 Mar-
1 Nov 1943)

WEAPON SYSTEMS

B-10M
O-25C
O-43
O-47A
O-49, 1941-1942
O-52, 1941-1942
L-4A, 1942
P-39Q, 1943-1944
A-20A, 1943
A-20C
DB-7, 1943
L-2, 1943
L-3C, 1943
C-45A
L-1C
P-39F
P-39M
P-43B
P-43E
YB-10A

YG-1B
YRB-47, 1953-1954
RB-47, 1954-1958
B-47, 1958
AC-47, 1968-1969

ASSIGNED AIRCRAFT SERIAL NUMBERS

A-20A
40-84

A-20C
41-19184

B-10M
34-91

C-45A
41-1878

L-1C
41-19052

L-2
42-7777

L-3C
43-1927

L-4A
42-15221

O-25C
32-201
32-210

O-47A
37-308
37-295
37-270
37-307
37-270
37-296
37-294
37-308
37-309
37-310

37-296

O-52
40-2879

P-39F
41-7278
41-4271

P-39M
42-4710

P-39Q
42-19686
42-19694
42-19662
42-20773
44-2004
44-2004
42-20781

P-43
40-2951

P-43B
40-2895
40-2895
40-2911

P-43E
41-31492

YB-10A
33-154

YG-1B
37-380
37-381

ASSIGNED AIRCRAFT TAIL/BASE CODES

UNIT COLORS

COMMANDERS

Unkn, 4 Apr 1918-3 Jul 1919

2LT George R. Smith, 1 Jun 1937
Maj Glenn C. Salisbury, 18 Jun 1937
Maj Percival E. Gabel, 9 Feb 1941
Unknown, 11 Aug 1941-7 Dec 1941
Unkn, 27 Sep 1919-2 Jul 1944
None (not manned) 28 May 1952
Maj Henry M. Henington, 1 Jun 1953
Maj Robert C. Householder, 18 Jul 1953
LTC Henry M. Henington, 11 Jan 1954
Maj Carl A. Kluender, 4 Jul 1955
Maj John J. Mason, Jun 1956
LTC Roger A. Stevenson, Oct 1957
Maj Alvin G. Schuering, Dec 1957
None (not manned), 15 Apr-1 Jul 1958
LTC Charles W. Hodgson, 1 May 1968
LTC Donald W. Feuerstein, 26 May 1968
LTC James R. Hyde, 2 Jan 1969
LTC Robert A. Davidson, 25 Feb
None (not manned), 1-15 Sep 1969
LTC Thomas W. Wilson Jr., 15 May 1976
Maj Joshua T. Day III, 1 Aug 1977
LTC David F. Tippett, 7 Sep 1977
LTC Richard R. Sheppard, 15 Feb 1979
LTC Harold W. Stoll, 19 Sep 1980
LTC Paul H. Miller, 26 Aug 1983
Maj Jeff O. Prichard, 9 Jul 1985
LTC Charles F. Turk, Nov 1985
LTC David A. Geraldson, 24 Sep 1987- Dec 1989
Unkn, Jan 1990-Jun 1991
None (not manned), Jun-30 Sep 1991
Maj Joshua T. Day III, 1 Aug 1977
LTC David F. Tippett, 7 Sep 1977
LTC Richard R. Sheppard, 15 Feb 1979
LTC Harold W. Stoll, 19 Sep 1980
LTC Paul H. Miller, 26 Aug 1983
Maj Jeff O. Prichard, 9 Jul 1985
LTC Charles F. Turk, Nov 1985
LTC David A. Geraldson, 24 Sep 1987- Dec 1989
Unkn, Jan 1990-Jun 1991
None (not manned), Jun-30 Sep 1991
LTC Gary L. McCollum, 28 Oct 2005
LTC Paul M. Caltagirone, 31 May 2007
LTC Robert Brock

HONORS

Service Streamers

World War II American Theater

Campaign Streamers

World War I
Champagne-Marne
Aisne-Marne
St Mihiel
Muese-Argonne

Defensive Sector Streamers
Lorraine; Champagne
Ile-de-France

Vietnam
Vietnam Air Offensive, Phase III
Vietnam Air/Ground
Vietnam Air Offensive, Phase IV
TET 69/Counteroffensive
Vietnam Summer-Fall, 1969

Armed Forces Expeditionary Streamers

None

Decorations

Presidential Unit Citation
21 Jun 1968-30 Jun 1969

Air Force Outstanding Unit Awards with Combat "V" Device
1 May-20 Jun 1968
1 Jul 1968-30 Jun 1969

Air Force Outstanding Unit Awards
21 Mar-9 May 1956
1 Apr 1980-31 Mar 1982
1 Jul 1985-30 Jun 1987
1 Jun 1988-1 Jun 1990
[28 Oct 2005]-31 Aug 2006

Republic of Vietnam Gallantry Crosses with Palm
1 May-30 Aug 1968
1 May 1968-15 Sep 1969

EMBLEM

On a disc Or, a delta removed point to base Azure, overall a dragon Sable, wings extended, eyed and incensed Gules, all detailed of the field, grasping a dagger palewise point to base Proper, the dragon tail entwining the blade; all within a narrow bordure Black. Attached above the disc, a

Yellow scroll edged with a narrow Black border and inscribed “PRO PATRIA PRO LIBERUS” in Black letters. Attached below the disc, a Yellow scroll edged with a narrow Black border and inscribed “3RD SPECIAL OPERATIONS SQ” in Black letters. Ultramarine blue and Air Force yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The black winged dragon signifies protection and guardianship, its red flamed mouth represents strength of weapons. The dagger symbolizes swift and silent mobilization of forces. The blue delta signifies the flight camera lenses used by the unit. (Approved, 23 Jul 1932)

MOTTO

PRO PATRIA PRO LIBERUS

NICKNAME

OPERATIONS

The 3 SOS accomplishes global special operations tasking as a member of the Air Force component of United States Special Operations Command. It directly supports theater commanders by providing precision weapons employment and persistent intelligence, surveillance, and reconnaissance. It also plans, prepares, and executes MQ-1B missions supporting special operations forces.

Organized in France in Apr 1918, the Photographic Section No. 1 processed aerial photographs taken by flying units working with the I Army Corps (American) and French XXXVIII Army Corps, 5 Apr-Nov 1918.

The 1st Photographic Section, from Sep 1919 until becoming the 3d Observation Squadron on 1 Jun 1937, processed aerial photography of associated observation squadrons in Texas. At Langley Field, VA, the squadron engaged in aerial observation work with the Coast Artillery School until Apr 1942.

It supported ground forces on maneuvers during 1942, and served as a training and demonstration unit Jan 1943-Feb 1944.

The squadron was not manned or equipped, 1 Mar-2 Jul 1944.

Activated again in May 1952, the squadron did not receive its first aircraft until 1 Jul 1953, when it immediately began familiarization training, followed by in-flight refueling training in Feb 1954. It received RB-47E in Mar 1954, and conducted its first long-range mission (6 planes to Alaska for 10 days) in May 1954. The squadron deployed at RAF Upper Heyford, England, 14 Sep-3 Nov 1954. It photographed numerous Air Force bases and American cities, 1954-1958, and participated regularly in SAC exercises, but was not operational, 15 Apr-1 Jul 1958.

As the 3d Air Commando Squadron in South Vietnam, it absorbed resources of the 14th Air Commando Squadron. It flew combat missions in AC-47Ds in close air support of ground forces, providing flare illumination and gunfire in support of strategic hamlets, outposts, and friendly

forces under night attack. From 16 Feb-1 May 1969, all squadron aircraft were maintained on ground alert when not flying, due to the TET offensive. It began transferring its gunships to the Vietnamese Air Force in Jun 1969 and flew its last mission on 7 Aug 1969.

The significant downturn in Air Force Spooky strength marked the mounting stress on Vietnamization of the war, a highly publicized national policy embraced by the Nixon administration. The arrival of the follow-on AC-119G gunships began the one-for-one tradeoff that was to make the AC-47 surplus to Air Force needs. On June 26, 1969, all Spookies of D Flight, 3d Special Operations Squadron, were flown from Binh Thuy to Nha Trang, where their ceremonial transfer to the Vietnamese Air Force took place on June 30. The 3d SOSq flew its last mission on August 7 and was inactivated on September 1, 1969. This left the 4th SOSq the sole surviving Air Force Spooky unit and it was scheduled for inactivation on December 15, 1969. As the 3d Special Operations Squadron left the scene, the 4th SOSq had to reshuffle its AC-47 forces. It closed out its forward operating location at Phu Cat and took over the former 3d SOSq forward operating location at Bien Hoa.

Spooky successes in Laos also gave impetus to a program for converting Royal Laotian Air Force (RLAF) C-47s to gunships. Originally, four were to be modified. A series of events caused abandonment of the conversion. The transfer of eight Vietnamese C-47s to the Laotians was arranged instead. The first five Vietnamese Air Force aircraft were turned over on July 5 and the last one on October 2, 1969. By September 30, 1969, five of these aircraft had been modified into gunships. This equipping of the Royal Laotian Air Force with gunships was assisted by transfer of the 3d Special Operation Squadron's AC-47s to the Vietnamese Air Force

The 3d Tactical Electronic Warfare Training Squadron although having a "tactical" designation, was not equipped with aircraft. Rather, it operated Camp O'Donnell, Philippines, the Pacific Air Forces Electronic Warfare Range, the Crowe Valley Aerial Gunnery Range, and associated facilities. It provided realistic conventional, tactical, and electronic warfare training in a simulated combat environment during COPE THUNDER exercises. These exercises provided combat training for fighter aircrews of not only the U.S. Air Force, but also fighter crews of the US Marine Corps, US Navy, and allied air forces in the western Pacific area. Following the eruption of Mt Pinatubo in Jun 1991, personnel were evacuated, and the squadron remained unmanned until its inactivation.

On 17 December 2007, at approximately 1035 zulu (z), an MQ-1B, Predator. S/N 05-03155. crashed at a forward operating location. The MQ-1B Predator aircraft, S/N 05-03155, assigned to the 3rd Special Operations Squadron (3 SOS), 27th Special Operations Wing, Cannon AFB, NM, impacted the terrain in a forward location in support of Operation Iraqi Freedom (OIF). There were no reported injuries, fatalities, damage to private property, or media interest. The aircraft was damaged beyond economic repair and the loss is valued at \$3,849,481. The mishap aircraft (MA) was flying an operational mission in support of OIF. Approximately 6.5 hours into the scheduled 9.5 hour flight, the Ku band command and receive link between the aircraft and the ground control station (GCS) was unexpectedly severed. The MA's transponder switched to its emergency mission code, indicating that it was accomplishing its lost link profile. The aircraft departed controlled flight and crashed at approximately 1035. The aircraft Ku-Band SATCOM datalink was lost prior to any indication of malfunction of the aircraft, in the proximity of the

wreckage to the last known aircraft down linked location and the extent of the debris field suggests that the aircraft most likely broke apart in the air near the lost link location. Examination of the air traffic control radar reports and recovered hardware indicate the aircraft broke apart from excessive aerodynamic loading. There is clear and convincing evidence that the cause of this mishap was a short circuit of the alternator or one of the alternator power cables. A major power system failure in the alternators accounts for the loss of SATCOM links, failure to follow the lost link emergency mission, failure of the aircraft tails to command a full nose up configuration, and a loss of control of sufficient duration to achieve critical airspeed resulting in the observed in-light breakup. None of the recovered components showed evidence of damage due to shrapnel or projectiles and the military ground unit in the vicinity of the lost link event did not see or hear any enemy fires directed at the MA. A lost link event, standing alone, would have resulted in the aircraft performing its lost link mission, being recovered and landing safely. An aircraft control system failure would have resulted in the aircraft tails moving to a full nose-up position and a porpoiselike stall impact. The launch and recovery ground control stations were not configured to allow an unintentional ground control station uplink.

Air Force Special Operations Command's 3rd Special Operations Squadron at Cannon AFB, N.M., the command's sole unmanned aerial vehicle squadron, is one of the most in-demand units for operations in Iraq and Afghanistan. Lt. Gen. Donald Wurster, AFSOC boss, called the 3rd SOS an example of "industrial strength airpower," before introducing its commander, Lt. Col. Paul Caltagirone, Sept. 15 at AFA's Air & Space Conference in Washington, D.C. Caltagirone said that last year the unit flew around 61,000 combat flight hours—more than the rest of AFSOC combined. More than 92 percent of the new squadron—still shy about half its authorized number—participates in these combat sorties, said Caltagirone, who noted, too, that the unit has never flown a training mission, since it directly entered the fight after activation. The 3rd SOS operators meticulously surveil sites and persons and gather information on movements, locations, and makes what Caltagirone terms "pattern of life analysis," before a raid or strike on a high value target.

On 21 July 2008, at approximately 0638 zulu (z), an MQ-1B, Predator, S/N 05-003135, was lost at a forward operating location. The MQ-1B Predator aircraft, S/N 05-003135, assigned to the 3rd Special Operations Squadron (3 SOS), 27th Special Operations Wing (27 SOW), Cannon AFB, NM, lost command and return link while flying a sortie in support of Operation ENDURING FREEDOM (OEF). Link with the aircraft was never reestablished and the aircraft was presumed crashed with no known injuries, deaths or reported property damage. The aircraft loss is valued at \$3,849,000. The mishap aircraft (MA) was flying an operational mission in support of OEF. Approximately 12.2 hours into the scheduled 22-hour flight, the Ku-band command link (CL) and return link (RL) between the aircraft and the Multiple Aircraft Control (MAC) Ground Control Station (GCS) was lost when line power to Pilot Station #2 (PS2) was interrupted by an uninterruptable power supply (UPS) failure. Power was restored to the MAC GCS and PS2 at approximately 0930z and attempts to reestablish link with the MA were unsuccessful. Based on the MA's lost link profile, which included a 30 minute loiter and 1 hour and 20 minute return to base (RTB), the expected arrival at its intended landing base was 0830z. The Launch and Recovery Element (LRE) attempts to find the MA with Air Traffic Control (ATC), Ground Control Approach (GCA) and tower control radars showed no known position after 073 lz. The LRE configured their Containerized Dual Control Station (CDCS) to attempt to

locate and recover the MA, after returning the other airborne lost link aircraft to the MAC GCS for continued mission execution. The CDCS remained configured and searched for the MA for the next 10 hours in all airfield recovery sectors with no success. Loss of line power to the MAC GCS initiated subsequent MA lost link and emergency mission execution. Two other aircraft were affected by the same situation, but were safely recovered. There is substantial evidence to conclude that hazardous weather during the MA's emergency mission and RTB at 18,000 feet substantially contributed to the mishap and loss of the aircraft. Convective weather was forecast in the area of the recovery route to include broken cloud decks, areas of towering cumulus (TCU) and light in-cloud icing conditions. MA weather scans confirmed the presence of weather in the area. Landing weather at the LRE was not a factor.

2008 The 3rd Special Operations Squadron, Air Force Special Operations Command's sole unmanned aerial vehicle unit, formally transferred from Nellis AFB, Nev., to Cannon AFB, N.M., during a ceremony Oct. 8. AFSOC activated the squadron in October 2005. It has been providing MQ-1 Predator capabilities to commanders in Southwest Asia since May 2007 from Nellis and Creech AFB, Nev., using UAVs and personnel brought over from Air Combat Command. The unit has become one of the Air Force's most in-demand units for the War on Terror. Once it is at full strength at Cannon by around mid-2009, it will have more than 300 personnel.

On 20 April 2010, at 1057 local time (PDT), a remotely piloted aircraft (RPA), MQ-1B tail number 08-3229 ("RPA 08-3229," "RPA," "aircraft," or "mishap aircraft"), impacted the ground at Southern California Logistics Airport (KVCV, the former George AFB) in Victorville, California. The aircraft and one inert Hellfire training missile were a total loss. Damage to government property was estimated at \$3,743,211.00. The crash did not result in any injuries to people, but did result in minor damage to non-military property (a runway light). After normal maintenance and pre-flight checks, the mishap crew began conducting launch and recovery training at KVCV with RPA 08-3229. The aircraft was piloted remotely by a student aircrew from the 3rd Special Operations Squadron (3 SOS), Cannon Air Force Base, New Mexico, under the supervision of an instructor aircrew from 163rd Reconnaissance Wing (163 RW), California Air National Guard. The student and instructor crews were physically located at KVCV. The student crew was experienced in Mission Control Element operations and was qualifying in Launch and Recovery Element (LRE) operations in anticipation of a deployment. The student pilot had completed the first syllabus flight event over two sorties. The mishap sortie was his third flight of the program, but only his second of six graded flight events. The crew successfully completed two simulated flameout approaches to runway 21, followed by four closed patterns approaches to runway 21. Due to reported change in the wind direction, the crew switched to runway 17. The first closed pattern to runway 17 resulted in the mishap landing, approximately 50 minutes into the mission. Normal approach speed would be approximately 76 knots indicated air speed (KIAS). The calculated stall speed for the aircraft configuration was just under 57 KIAS. During the mishap approach, the aircraft accelerated to 93 KIAS, initiating cruise mode. Cruise mode alters the aircraft handling characteristics, limiting maneuverability. The Mishap Pilot (MP) throttled back to idle power to slow the aircraft to normal approach speed, noting the cruise mode shut off at 71 KIAS. The aircraft continued to decelerate to 64 KIAS as it passed the runway threshold. At about 30 feet above ground level, the MP added power, but the aircraft continued to decelerate to 61KIAS. Additionally, the aircraft began to drift from the centerline

toward the left side of the runway. Cockpit voice recordings were not available, but witnesses concur that at approximately this point the Mishap Instructor Pilot called for a go-around to avoid landing too far to the left on the runway. In addition to applying backstick pressure to arrest the descent, the MP attempted to turn the aircraft right to return to the runway centerline to avoid potential conflicts with other airfield traffic. The MQ-1 lacks a separate rudder, so control inputs in multiple axes can affect an individual control surface. Multiple axis inputs can cause the control surface to lose effectiveness. Observations by the Supervisor of Flying (SOF) and an employee of Southern California Aviation also suggest that a gust of wind occurred during this time. Despite the pilot's selection of full power, the aircraft continued to settle to the runway, contrary to the expectations of the crew. From approximately 30 feet above the runway with the aircraft at 0 degrees of bank, the RPA descended to a hard landing at -10.4 degrees bank (left), hitting on the left landing gear only. The descent rate at impact was approximately 430 feet per minute (FPM) and accelerating at touchdown, which caused acceleration in excess of 2.6Gs on the aircraft's left landing gear. The resulting ground reaction force on the gear exceeded its design ultimate load limit, causing it to break. Subsequently, the left wingtip dragged on the ground and impacted a runway light. The drag force of the contact with the ground and light pulled the aircraft further left. The RPA departed the prepared surface off the left side of runway 17. The nose gear collapsed soon after departing the prepared surface, severely damaging the Multispectral Targeting System (MTS) sensor ball. The fuselage broke into two main sections aft of the sensor ball, causing the aircraft to rotate 180 degrees and come to an abrupt stop approximately 300 feet from the initial touchdown point. Numerous smaller parts, including the propellers, wingtips, and tail control surfaces, were liberated from the aircraft. The aircraft cost was \$3,743,211.00, including the aircraft and an inert (dummy) training missile. There were no injuries and the only additional damage was the broken runway light. The light was quickly repaired to allow continued operation of the airport. The Mishap Investigation Board President determined, by clear and convincing evidence, that the main cause of the mishap was failure of the student pilot and instructor pilot to recognize that the aircraft's speed was too low for the weather conditions at KVCV. The most significant contributing factor was the mishap pilot's experience level and lack of preparatory training. Other significant factors were MQ-1 LRE Instructor Pilot training program deficiencies, poor pilot to vehicle interface, and unexpectedly difficult wind conditions. Investigation also revealed a manufacturing flaw, an inverted element, in the landing gear box, but there was insufficient evidence to determine whether the flaw contributed to the mishap.

On 28 July 2010 at 1400 Zulu (Z) time, the Mishap Remotely Piloted Aircraft (MRPA), an MQ-1B Predator, serial number (S/N) 07-3200, crashed into a perimeter fence south of the Cannon Air Force Base (AFB) airfield. The Predator and Launch and Recovery Element (FRF) crew were assigned to the 3rd Special Operations Squadron, 27th Special Operations Wing, Cannon AFB, New Mexico. There were no injuries or deaths, but the mishap did result in minor damage to non-military property (corn). Damage to the MRPA and government property is valued at \$988,149. The mishap occurred on day two of the Rapid Reaction Demonstration (RRD), which was intended to validate the feasibility of rapidly deploying the MQ-1 system and team. The MRPA taxied south from a parking location near the south end of Delta taxiway at 1355Z. Approximately four minutes into the taxi, the Mishap Crew (MC) experienced degraded signal strength and increased Datalink Delay (time for signal to travel from the control station to the aircraft) between the MRPA and the Containerized Deployable Control Station (CDCS) 6010.

During this period, the MC noticed an uncommanded power increase (without accompanying throttle input) and corresponding increase in ground speed. Mishap Pilot 1(MP1) commanded 100% brakes but the MRPA did not respond to the input. Following emergency procedures, the MC cut power to their Portable Ground Data Terminal (PGDT) in an attempt to stop the MRPA. At the time the MC identified the problem, the MRPA was taxiing past a building that obstructed its Line Of Sight (LOS) communication link with the controlling PGD T. Mishap Pilot 2 (MP2) was operating (shadowing), without a Sensor Operator (SO), from another location that provided unobstructed FOS communication with the MRPA. While preparing CDCS 6006 to shadow the mission. MP2 deviated from a checklist item by turning her Ground Data Terminal (GDT) transmitter to the ON position. As the signal strength from CDCS 6010 dropped off. the shadow CDCS 6006 linked to the aircraft and took control. As a result, the aircraft experienced an increase in speed, departed the prepared surface and impacted a perimeter fence approximately 1.900 feet from the end of the runway. The Accident Investigation Board (AIB) President determined, by clear and convincing evidence, the cause of the mishap was a loss of aircraft control due to MP2 deviating from checklist procedures by turning the GD I uplink transmitter to ON. The AIB President found, by a preponderance of evidence, the following three factors substantially contributed to the mishap: (1) failure to comply with required crew compliment: (2) absence of published directives for shadow operations: (3) failure to identify the limitations of the PGDT and the impact of FOS obstructions.



Air Force Order of Battle
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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.
The Institute of Heraldry. U.S. Army. Fort Belvoir, VA.
Air Force News. Air Force Public Affairs Agency.
USAF Accident Investigation Board Reports.