# 59th TEST AND EVALUATION SQUADRON



## **MISSION**

The 59th Test and Evaluation Squadron is responsible for the management of A-10, F-15, F-16, F-22, and HH-60 testing including force development evaluations, tactics development and evaluations, and software evaluations. Squadron personnel direct operational test planning and execution, as well as data gathering, analyzing, and reporting for the above systems operated by the Combat Air Forces. Additionally, the squadron manages OT&E of weapons and support systems in order to improve current and future U.S. Air Force combat capabilities.

## LINEAGE

59<sup>th</sup> Pursuit Squadron (Interceptor) constituted, 20 Nov 1940 Activated, 15 Jan 1941

Redesignated 59<sup>th</sup> Fighter Squadron, 15 May 1942

Redesignated 59th Fighter Squadron, Two Engine, 8 Feb 1945

Inactivated, 8 Dec 1945

Redesignated 59th Fighter Squadron, Single Engine, 17 Jul 1946

Activated, 20 Aug 1946

Redesignated 59<sup>th</sup> Fighter Squadron, Jet, 14 Jun 1948

Redesignated 59<sup>th</sup> Fighter-Interceptor Squadron, 20 Jan 1950

Discontinued and inactivated, 2 Jan 1967

Activated, 30 Sep 1968

Inactivated, 17 Dec 1969

Redesignated 59<sup>th</sup> Tactical Fighter Squadron, 16 Mar 1970

Activated, 1 Sep 1970

Redesignated 59<sup>th</sup> Fighter Squadron, 1 Nov 1991

Inactivated, 15 Apr 1999

Redesignated 59<sup>th</sup> Test and Evaluation Squadron, 28 Oct 2004

Activated, 3 Dec 2004

#### **STATIONS**

Mitchel Field, NY, 15 Jan 1941 (operated from Groton, CT, 7-14 Dec 1941)

G. L. Martin Aprt, MD, 15 Dec 1941

Philadelphia, PA, 10 May-12 Oct 1942 (operated from Paine Field, WA, May-Jun 1942)

Port Lyautey, French Morocco, 10 Nov 1942

Casablanca, French Morocco, 17 Nov 1942

Thelepte, Tunisia, 8 Jan 1943

Youks-les-Bains, Algeria, 10 Feb 1943

Telergma, Algeria, 13 Feb 1943

Berteaux, Algeria, 2 Mar 1943 (operated from Thelepte, Tunisia, 20 Mar-12 Apr 1943)

Ebba Ksour, Tunisia, 12 Apr 1943

Menzel Temime, Tunisia, 20 May 1943

Sousse, Tunisia, 9 Jun 1943

Pantelleria, 18 Jun 1943

Licata, Sicily, 16 Jul 1943

Paestum, Italy, 13 Sep 1943

Santa Maria, Italy, 18 Nov 1943 (operated from Paestum, Italy, 1-31 Dec 1943)

Cercola, Italy, 1 Jan-5 Feb 1944

Karachi, India, 12 Feb 1944

Fungwanshan, China, 19 Mar 1944

Moran, India, 5 Sep 1944

Nagaghuli, India, 21 Nov 1944

Piardoba, India, 2 May 1945

Dudhkundi, India, 15 May-15 Nov 1945

Camp Shanks, NY, 7-8 Dec 1945

Neubiberg, Germany, 20 Aug 1946

Bad Kissingen, Germany, Jul-25 Aug 1947

Andrews Field, MD, 25 Aug 1947

Roswell AAFId (later Walker AFB), NM, 16 Sep 1947

Otis AFB, MA, 16 Nov 1948

Goose Bay Aprt, Labrador, 28 Oct 1952

Bergstrom AFB, TX, 1-2 Jan 1967

Kingsley Field, OR, 30 Sep 1968-17 Dec 1969

Eglin AFB, FL, 1 Sep 1970-15 Apr 1999

Nellis AFB, NV, 3 Dec 2004

## **ASSIGNMENTS**

33<sup>rd</sup> Pursuit (later, 33<sup>rd</sup> Fighter) Group, 15 Jan 1941-8 Dec 1945
33<sup>rd</sup> Fighter (later, 33<sup>rd</sup> Fighter-Interceptor) Group, 20 Aug 1946
4707<sup>th</sup> Defense (later, 4707<sup>th</sup> Air Defense) Wing, 6 Feb 1952
64<sup>th</sup> Air Division, 1 Feb 1953
4732<sup>nd</sup> Air Defense Group, 1 Apr 1957
Goose Air Defense Sector, 1 Apr 1960
37<sup>th</sup> Air Division, 1 Apr 1966-2 Jan 1967
408<sup>th</sup> Fighter Group, 30 Sep 1968-17 Dec 1969
33<sup>rd</sup> Tactical Fighter (later, 33<sup>rd</sup> Fighter) Wing, 1 Sep 1970
33<sup>rd</sup> Operations Group, 1 Dec 1991-15 Apr 1999
53<sup>rd</sup> Test Management Group, 3 Dec 2004

# **ATTACHMENTS**

Northeast Air Command, 28-31 Oct 1952 64<sup>th</sup> Air Division, 1 Nov 1952-31 Jan 1953

## **WEAPON SYSTEMS**

P-39, 1941

P-39D

P-40, 1941-1944

P-40C

P-40E

P-40F

P-40L

P-40N

P-47, 1944-1945

P-47D

P-38, 1944-1945

P-38G

P-38L

P (later F)-51, 1946-1949

P-51D

F-84, 1948-1950

F-84C

F-86, 1950-1952

F-86A

F-94, 1952-1956

F-94B

F-89B

F-89D, 1955

F-89J, 1957

F-102A, 1960-1966

F-101, 1968-1969

F-4, 1973-1979

## **COMMANDERS**

Maj Mark E. Hubbard, Nov 1942

Cpt J. P. Crowder, 8 Feb 1943

Cpt Donald A. Halliday, 10 Feb 1943

Maj Mark E. Hubbard, 28 Feb 1943

Cpt J. P. Crowder, 8 Mar 1943

Maj Mark E. Hubbard, 12 Mar 1943

Lt (unkn) Holcombe, 9 Apr 1943

Maj Mark E. Hubbard, 10 Apr 1943

Lt (unkn) Holcombe, 19 Apr 1943

Maj Mark E. Hubbard, 25 Apr 1943

Maj Charles H. Duncan, 4 May 1943

Lt (unkn) Watts, 5 Aug 1943

Maj Charles H. Duncan, 26 Aug 1943

Maj Blanchard K. Watts, 21 Jan 1944

Cpt Walter L. Moore Jr., 2 Feb 1944

Cpt Richard K. Turner, 2 Mar 1945

Cpt Frank A. Duncan, 1 Apr 1945

Cpt Charles R. Langdon, 20 Apr 1945

Cpt John W. Sognier, 23 May 1945

Cpt Edward R. Tyler, 12 Jun 1945

Cpt Howard Schulte, 26 Aug-20 Sep 1945

Unkn, 21 Sep-8 Dec 1945

Maj Chester L. Van Etten, 20 Aug 1946-31 Mar 1947

Unkn, 1 Apr-5 Jul 1947

None (not manned), 5 Jul-6 Nov 1947

Maj Frank Q. O'Connor, 7 Nov 1947

Maj Jerold J. Quandt, 2 Jun 1948

LTC Woodrow W. Korges, 27 Jul 1948

Maj Jack C. West, 4 Mar 1949

LTC Oscar H. Coen, 17 Jan 1950

LTC Robert Dow, Jan 1951

Maj Morris F. Wilson, Aug 1951

LTC Robert Dow, Dec 1951

LTC Fergus C. Fay, Oct 1953

Maj Voy A. Winders, 1954

Maj Francis R. Davison, Jul 1954

Maj Victor H. Prarat, 10 Jan 1955

LTC Victor E. Walton, 10 Feb 1955

LTC William A. Shomo, 4 May 1955

LTC Leonard F. Koehler, 1957

LTC Frank R. Jones, 1 Apr 1961

Col Edward R. Haydon, 8 Jun 1963

Col William J. Murphy Jr., 1 Jul 1965

Maj Robert J. Skinner, 15 Jun 1966

Col Dale L. Flowers, 29 Jun 1966-unkn

LTC William Savidge Jr., 30 Sep 1968

LTC Ronald J. Layton, 30 Jun 1969-unkn

None (not manned), 1 Sep 1970

LTC Peter K. Nicolos, 1 Jul 1973

LTC Robert D. Rasmussen, 1 Jul 1975

LTC John P. Heffernan, 1 Apr 1977

LTC Jerry Cox, 23 Mar 1979

LTC John R. Lippolt, 13 Mar 1981

LTC Rudolph U. Zuberbuhler, 31 Jul 1981

LTC William K. Matthews, 1 Jun 1983

LTC James D. Woodall, 29 May 1985

LTC Steven G. Wilson, 29 May 1987

LTC Michael E. Fain, 20 Jan 1989

LTC James H. Davis, 19 Feb 1991

LTC James G. Boehm, 6 Jul 1992

LTC Michael J. Kosor Jr., 8 Jul 1994

LTC Mark A. Morris, 8 Jul 1995

LTC Thomas A. McCarthy, 2 May-14 Dec 1997

None (not manned), 15 Dec 1997-15 Apr 1999

LTC David J. Raggio, 3 Dec 2004

LTC Daniel F. Holmes, 11 Aug 2006

LTC William R. Tracy, 1 Aug 2008

#### **HONORS**

## **Service Streamers**

None

## **Campaign Streamers**

World War II

Air Combat, EAME Theater

Algeria-French Morocco with Arrowhead

Tunisia

Sicily

Naples-Foggia

Anzio

Rome-Arno

India-Burma

China Defensive

Central Burma

## **Armed Forces Expeditionary Streamers**

None

#### **Decorations**

Distinguished Unit Citation Central Tunisia, 15 Jan 1943

Air Force Outstanding Unit Awards 1 Dec 1960-1 Dec 1961 30 Sep 1968-30 Jun 1969 1 Jul-30 Nov 1969 1 Oct 1978-30 Apr 1980 1 May 1984-30 Apr 1986 1 Apr 1990-31 Mar 1992 1 Jun 1996-31 May 1998

## **EMBLEM**



59<sup>th</sup> Fighter Interceptor Squadron emblem: The wife of one of the 59th Supply Airmen or NCOs had designed a new 59th Squadron Patch early in 1952. Her new patch depicted a black bat on a yellow "Moon" background with "59" on the top part of the moon and "Freicudan Du," Gaelic for Black Watch or Black Guard, below the bat and across the bottom part of the moon. The new patch was called "The Bat on the Moon". It more fittingly represented an All-Weather Fighter Interceptor Squadron, flying mostly at night and in bad weather, than the existing 59th Lion patch with the phrase, "Golden Pride". In June one of the newly reporting 2/Lt pilots, William R. Tuxhorn, refined the design making the bat look more "ferocious" and that design was adopted as the new squadron patch. Unfortunately, this Bat on the Moon patch was never submitted to the Air Force for official recognition. Never-the-less, it became the 59th Squadron Emblem for the Goose Bay Northeast Air Command period from mid-1952 until the squadron was inactivated in 1967. A bat, without the moon, was painted on both sides of the nose of the F-94 squadron aircraft between the gun ports and air intake duct.











On a disc quartered saltire-wise, Yellow at top and bottom and chequey Yellow and White on the sides, a Blue disc bearing a Yellow leaping lion with Brown mane and body, White teeth and claws, head and claws detailed Black, and Red mouth, in front of two White clouds and above five White stars; all within a narrow Yellow border. (Approved, 19 Dec 1942 modified, 6 Aug 1986)

## **MOTTO**

**GOLDEN PRIDE** 

## **NICKNAME**

## **OPERATIONS**

The 59th Pursuit Squadron (Interceptor) was constituted 20 Nov. 1940 and activated 15 Jan. 1941 at Mitchel Field, New York, as part of the 33rd Pursuit Group. The squadron was originally equipped with P-39s. When the U. S. entered World War II, the 59th was re-deployed to various locations for air defense of the East Coast. The squadron was redesignated the 59th Fighter Squadron and transferred with The 58th Fighter Squadron to Paine Field, WA during May and

June, 1942, then transferred back to Philadelphia when the threat to the West Coast of the U. S. was greatly lessened by the victory at the Battle of Midway.

During 1942, the 59th was equipped with P-40s. When forces for the Invasion of North Africa were selected, the 59th was included and in October 1942, the P-40s were loaded aboard the Aircraft Carrier USS Chenango and transported with the Invasion forces to the coast of North Africa. Ground personnel of the squadron were among the initial landing forces coming ashore at Port Lyautey, French Morocco, on 8 Nov. 1942. The 59th pilots in their P-40s were catapulted from the carrier on 11 November, landing on the bomb-torn runway at Lyautey. The squadron was moved to various other locations during the final stages of the Battle for North Africa. The squadron saw further action in Sicily, Italy, India, Burma and China during the remainder of WWII.

On 2 Feb. 1944, after 15 months in service in North Africa, Sicily and Italy, flying a total of 4,048 combat sorties and claiming 39 victories, the 59th ceased operations in the European Theater and was transferred to Karachi, India. During these 15 months, the 59th lost 12 pilots. Their P-40 aircraft were left at Cercola Airfield near Naples since new P-40s awaited them in India. The transfer involved 26 pilots, 4 ground officers and 86 enlisted men. After picking up their new aircraft, the squadron was sent to Fungwanshan, China.

In October 1944, they transitioned to P-47 and aided in the opening of the Burma Road and the capture of Lashio and Mandalay. In April 1945, the squadron began receiving P-38 and transferred their P-47s to other units. Little action occurred between then and the end of the war. In August 1945, when the Japanese government accepted Allied Terms of Surrender, the 59th ceased all flying to allow the aircraft to be put into condition for transfer. Flying resumed for a short time in September, but the aircraft were then transferred out and by November, the squadron personnel were on their way home. The squadron was inactivated 8 Dec. 1945 at Camp Shanks, N. Y.

The 59th Fighter Squadron was reactivated 20 Aug. 1946 at Neubiberg, Germany, and equipped with F-51 as part of the U. S. occupation forces in Germany. They did not stay long in Germany. The squadron was transferred to Roswell, N. M. 16 Sept. 1947 as part of the 33rd Wing along with the 58th and 60th squadrons. F-51s were flown until early 1948, when the squadron was equipped with the new Republic F-84 Thunderjet. During this period, the squadron was assigned to SAC as Bomber Escorts with the 509th Bomb Wing and renamed the 59th Fighter Squadron, Jet, on 14 Jun. 1948. After being equipped with F-84s in 1948, the 33rd Wing, including the 59th, was transferred to Otis AFB, Massachusetts on 16 Nov. 1948 under control of the 4707th Defense Wing. The squadron was renamed the 59th Fighter Interceptor Squadron on 20 Jan. 1950 and equipped with the North American F-86 Sabre prior to June. At the outbreak of the Korean War the 59th deployed in detachments to several locations for the air defense of New England. By the end of the year, the squadron was back at Otis and great changes were in the wind for the 59th as well as the entire Air Force.

Major Raymond S. Wetmore, World War II ace (21.25 kills), and commander of the 59th Fighter-Interceptor Squadron at Otis Air Force Base, Massachusetts, is killed in the crash of North American F-86A-5-NA Sabre, 48-0149, at age 27. After a cross-country flight from Los Angeles, California, to Otis AFB, he was on his final approach when his plane suddenly shot up skyward, and then turned towards the ground where it crashed. Raymond was killed instantly. He was reported to have said that he had trouble steering and ejecting from the plane. He was also reported to have said to the tower that, "I'm going to go up and bring it down in Wakeby Lake, so I don't hit any houses." When he died, he left a widow and four children. 14 Feb 1951

The squadron at Otis AFB began converting to the F-94B early in 1951. Many highly experienced Jet Fighter Pilots, who had previously flown only single seat fighter aircraft and with prior combat experience in both Korea and WW II, were assigned to the squadron. Typical reactions from single seat pilots who had never flown a fighter with a back seat Radar Observer as a "passenger", after being assigned to an Air Defense Squadron: "I'd always flown single seat, single engine fighters. This was a new twist for me. Like most fighter pilots, I was not very happy about having someone in the back seat. Nor could I imagine why anyone would want to ride back there during all the gyrations we go through." One RO, when asked why he was a Radar Observer at the bar one evening replied, "Everyone has to be some place." When asked what ROs were good for? A fighter pilot replied, "If you go down in the arctic, you could eat 'em."

The squadron was scheduled for Gunnery Training in the F-94B in the fall of 1951 out of Eglin AFB, Florida. Many of the pilots scored a high percentage of "hits" and both the squadron and the individuals were commended. As the training continued, Pilots and Radar Observers became "teams" and increased their proficiency in finding "bogies" and guiding their planes to within firing range on radar.

During this period, the squadron only had nine F-94s and had broken all previous flying records. More than 1,000 hours were flown in the month of June alone! In June and July, six 2/Lt. Pilots reported to the squadron; all were from Pilot Training Class 51-H, which graduated with their wings in December 1951, except for one from 52-A who graduated in February 1952. These pilots had flown T-6s and B-25s in pilot training and had been sent to Jet Transition in T-33s and Jet Instrument School at Moody AFB, Georgia, after getting their wings. When they completed the training in Georgia, they proceeded to Tyndall AFB, Florida for checkout in the F-94. They then teamed up with newly graduated Radar Observers and began Radar Intercept training.

On September 11, 1952, an advanced detachment of the 59th FIS commenced TDY operations at Thule Air Base with F-94s, and on October 28,1952, the remainder of the squadron relocated from Otis AFB, Massachusetts, to Goose Bay.

Additional F-94Bs joined the squadron that summer and the squadron moved to Goose Bay in late October, 1952. Although there was some new construction going on, the base had changed very little from its World War II configuration. Initially, a major problem was where to house the officers of an entire new squadron. A new BOQ building was not yet completed and work had

been suspended for the cold months. So all officers, from the Commander down to the newest Second Lieutenant were housed in one large bay on the top floor of a WW II "H" shaped building constructed of wood with a heavy outside covering of black tar paper. There was one large latrine/shower room. The plumbing was in such disrepair that occasionally water was ankle deep in the latrine and additional boards had to be thrown down to walk on. In the large open bay, bunks were tiered two high and so many windows were missing glass that snow was scooped up from the floor to chill the Scotch. The squadron enlisted men were quartered in another building with similar comforts.

There were separate facilities for Squadron Operations. The 59th was given a couple of large rooms on the south side of Base Operations. Directly outside the building, about 50 yards away, and located in the open cold of the late Labrador fall and early winter were the two Red-Alert F-94s and the two 15-minute-alert aircraft. When scrambled, the flight crews ran out the south door of the Operations Building to their aircraft. As the crews climbed in the cockpit, the pilot brought the throttle "around the horn" to complete the starting process that the ground crews had initiated to facilitate the scramble time. Checklists were addressed as crew was buckling in and the aircraft was taxied to the end of the runway for take-off. Even in that primitive alert environment, three-minute scrambles were the rule.

In the spring of 1953, the new BOQ was completed at Goose Bay and the 59th officers were assigned quarters in the facility, two per room. This was a great improvement over the original officers quarters and moral skyrocketed. When the long awaited Spring Thaw arrived and snow melted revealing hundreds of empty whiskey, wine and beer bottles and cans around the old BOQ, all the Officers of the squadron were summoned to the Base Theater for a "Dressing Down" by the "dismayed" Base Commander. He had a couple of vehicles turned over to the 59th Officers who were told to police up the mess! He thought this would serve as punishment but actually the men had a good time in the process.

On July 1, 1953, their detachment at Thule was relieved by the 318th FIS and they rejoined the remainder of the squadron at Goose Bay.

Almost from the beginning of the squadron's stay at Goose, relationships between squadron officers and the Officers Club OIC (Officer in Charge) and other Base Wheels had been strained. These "ground-pounders" and an ever changing contingent of SAC "Weenies" were not acquainted with the free-wheeling behavior of Fighter Crews. More "conservative" members of the Club frowned upon their off-duty behavior. The Club Officer was "shocked" and other non-59th "wheels" began to complain of the conduct of 59th officers. Col. Dow, the 59th Commander who had brought the squadron from Otis, spent many an hour in front of the Base Commander, Col. Thomas, attempting to explain minor incidents (some may have been more notable), as the result of exuberant camaraderie to be expected from Fighter Crews. From time to time, an individual might be barred from the Club for a few days or a week, but Col. Dow became the buffer and protector and no "mass" punishment was inflicted on the squadron during the first year at Goose Bay while he was in command.

A new group of 59th officers, who were replacing those who had served their tour, continued to stretch the patience of other officers who were not in the squadron and who did not appreciate the uninhibited style. In other words, this second group of officers dutifully carried on the squadron's dubious reputation until finally, the entire squadron was banned from the O-Club.

The result was the now famous "Scramble Inn." In a vacant corner of the BOQ basement, from the creative resourcefulness of the eager and motivated volunteer 59th officers, emerged a uniquely decorated party room complete with tables, chairs, sofas and a well-stocked bar. On Christmas Eve 1953, the Scramble Inn held its grand opening and survived to enhance the tours of Goose Bay airmen for many years after.

During 1954, Squadron Commanders came and went. In January, a flight of two F-94s making an instrument approach to the base in an ice fog lost the horizon when they went visual and crashed onto the bay ice in formation. One cold Saturday night in February, an F-94 buzzing the Scramble Inn struck an unlighted radio tower near the BOQ but the pilot managed to get a badly beat up airplane on the ground with no injuries. Another aircraft ran out of fuel and the plane was lost in the Queen's timbers. Fortunately, pilot and RO were unhurt, used some of their survival training for one night, and came home on foot the next day. Another F-94 aborted the take-off, ran off the end of the runway and burned. The RO, using a .357 Magnum, got out by blowing a large hole in the jammed canopy and then dragged his pilot out. The pilot was also trapped under the jammed canopy and would not have made it without the ROs help. It was a tough year accident-wise.

The 59th was in process of taking over an old WWII hangar and painting and fixing up office spaces in preparation for moving the Squadron Orderly room there. Paints and solvents were stored in the furnace room. One midnight, it all burned. All of the 59th maintenance records and field personnel records were lost and it was back to square one using whiskey cases for filing cabinets. Luckily, no one was injured.

A great amount of construction began in 1954 to replace the old WWII structures. A new Base Theater, Chapel, Base Exchange, nine hangars, four warehouses, a steam power and heating plant, new Base Ops building, two fire stations, several shops were built and the runway and ramps were repaired. Compared to what the 59th crews found in October 1952, it began to look like a modern air base.

Towards the end of 1954, the 59th began receiving Northrop F-89D Scorpion aircraft and crews. The F-89D was a twin-engine interceptor, equipped with 104 unguided rockets located in launch-tube pods in front of the wing-tip fuel tanks. It had a more sophisticated radar system than the F-94. It also had a Pilot and Radar Observer. Early 1955 saw the end of F-94Bs and those F-94 crews who had not completed their year tour commitment transitioned into The F-89.

1955 F-89D experienced cracked inlet vanes after ten hours flying time;

The squadron's F-89Ds were replaced in 1957 with F-89Js; with twenty-nine on hand. This number of aircraft was reduced by transfer and attrition to twenty-two by the end of June 1959.

The 59th released their F-89J aircraft in early 1960 switched to F-102A. The remaining ROs were then reassigned. Canadian CF-100 aircraft from RCAF Squadron 433 at North Bay temporarily took over the alert commitment at Goose on 31 May 60, while the 59th pilots transitioned into F-102As during temporary duty to Harmon AFB. This training was completed and the 59th pilots retook the alert commitment at Goose on 6 Sep 1960 in their F-102s.

Thirteen Jet Interceptor Squadrons sent teams to Tyndall AFB, Florida, in late 1961 to compete in the bi-annual William Tell "turkey shoot." Five of these teams flew F-102A Delta Daggers. Ryan Firebee 23-foot long drones were used as targets. Each team sent out a flight of two on four separate missions. They were graded on procedures as well as "hits". The 59th flight crews received a perfect score. To top it off, the 59th Missile Loading Team won first in the Missile Loading competition. The victorious 59th was awarded the Air Force Outstanding Unit Award for the period of 1 Dec 1960 - 1 Dec 1961.

The 59th Fighter Interceptor Squadron was inactivated by the Air Force effective 2 January 1967. The majority of the squadron pilots were transferred to the 75th Tactical Reconnaissance Wing, Bergstrom AFB, TX, flying new McDonnell RF-4C Phantom aircraft.

The 59th FIS was activated under the 408th Fighter Group, 30 September 1968 at Kingsley Field, Oregon, and equipped with F-101Bs crewed by a Pilot and a Weapons Systems Officer. The squadron was again inactivated 17 December 1969.

On 1 September 1970, the 59th was reassigned to the 33rd Tactical Fighter Wing "Nomads". It was renamed the 59th Tactical Fighter Squadron and was stationed at Eglin AFB, Florida. They resumed the use of the 59th Proud Fighting Lion symbol and patch. The squadron did not actually become operational until 1974, flying McDonnell F-4 Phantoms.

In May, 1979, the 33rd Wing replaced the F-4s with the McDonnell F-15A Eagle.

2 November 1981 F-15A *75-0051*, of the 59th TFS crashes near Panama City, Florida after midair collision with F-15A, *76-0048*, during night refueling. Pilot killed. Second F-15 lands okay.

The 33rd Wing, at one time composed of up to eight F-15 squadrons, flew various models of the F-15 in combat air patrols and intercept missions in Operation Urgent Fury (Grenada) in 1983, Operation Just Cause (Panama) in 1989 and Operation Desert Shield and Desert Storm 1990-1991.

The Mishap Aircraft (MA) F-15C, S/N 80-0052, experienced a departure from controlled flight

and spin on 25 March 2005 during a Force Development Evaluation defensive Basic Fighter Maneuvers (BFM) mission against an F/A-22 Raptor and impacted the ground at N3653.690 W11437.658, approximately 45 miles northeast of Nellis AFB, NV. During the mission, five defensive BFM setups were performed. Approximately one minute into the fifth setup at about 1,000 feet above the training floor, the mishap pilot (MP) executed a left rudder roll underneath in an attempt to give a closure problem to the Raptor. As the MA passed an inverted attitude, the MA departed controlled flight and entered an upright, left-hand, low rate erect spin. After five revolutions with no apparent recovery, the pilot, assigned to the 59th Test and Evaluation Squadron, ejected safely and sustained no injuries. There was no significant property damage and no injuries to civilians on the ground. The aircraft was totally destroyed upon impact with the ground. There is clear and convincing evidence that the primary cause of this accident was the failure of one of the MA's horizontal stabilators. There is clear and convincing evidence that the MP could not have flown the MA in such a manner as to cause the MA to depart controlled flight and enter the spin. The cause of the spin entry, and a contributory factor to the subsequent recovery failure, was an undetermined aircraft flight control failure, either a right horizontal stabilator failed leading edge down or a left horizontal stabilator failed in the neutral position. There is clear and convincing evidence that the Out-of-Control/Departure Recovery checklist was causal in the MA's failure to recover from the spin because it fails to mandate split throttle power selection during recovery. There is clear and convincing evidence that the MP applied proper anti-spin flight controls whereby a fully functional F-15C would have recovered from the spin in 1-1/2 to 2 turns with lateral stick recovery controls alone. A contributory factor in the lack of spin recovery was the absence of direct anti-spin yawing moment via asymmetric thrust since both throttles were matched at idle. A fully functional F-15C would have recovered from the initial out-of-control situation after the MP neutralized controls and could not have generated the observed pitching up or yawing moments just prior to spin entry. Boeing engineering analysis of the Air Combat Maneuver Instrumentation flight data concluded that the MP could not have caused the MA spin based on the aerodynamic parameters at the time of the spin. Engineering analysis indicates that only an F-15C with a failed horizontal stabilator could generate the observed pitch-up and yawing moments required to depart controlled flight and enter the spin. With such a failure, recovery from the ensuing spin would be impossible unless the MA throttles were split against the yaw.

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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.