

## 45<sup>th</sup> RECONNAISSANCE SQUADRON



### MISSION

45<sup>th</sup> Reconnaissance Squadron gathers data essential to the national assessment of strategic weapons systems. The squadron is also tasked with flying the "Open Skies" mission, using the OC-135B aircraft to verify compliance with the Strategic Arms Reduction Treaty (START).

### LINEAGE

423<sup>rd</sup> Night Fighter Squadron constituted, 17 Aug 1943

Activated, 1 Oct 1943

Redesignated 155<sup>th</sup> Photographic Reconnaissance Squadron, 22 Jun 1944

Redesignated 45<sup>th</sup> Reconnaissance Squadron, Night Photographic, 3 Dec 1945

Redesignated 45<sup>th</sup> Tactical Reconnaissance Squadron, Night Photographic, 1 Jul 1948

Inactivated, 25 Mar 1949

Redesignated 45<sup>th</sup> Tactical Reconnaissance Squadron, 19 Sep 1950

Activated, 26 Sep 1950

Redesignated 45<sup>th</sup> Tactical Reconnaissance Squadron, Photographic-Jet, 1 Jan 1953

Redesignated 45<sup>th</sup> Tactical Reconnaissance Squadron, 1 Jan 1967

Inactivated, 31 May 1971

Activated, 15 Oct 1971

Inactivated, 31 Oct 1975

Redesignated 45<sup>th</sup> Tactical Reconnaissance Training Squadron, 8 Sep 1981

Activated, 1 Apr 1982

Inactivated, 30 Sep 1989

Redesignated 45<sup>th</sup> Reconnaissance Squadron, 24 Jun 1994

Activated, 1 Jul 1994

## **STATIONS**

Orlando AB, FL, 1 Oct 1943  
Kern County Aprt, CA, 29 Jan-26 Mar 1944  
Chormy Down, England, 18 Apr 1944  
Chalgrove, England, 20 May 1944  
Rennes, France, 10 Aug 1944  
Chateaudun, France, 28 Aug 1944  
St Dizier, France, 12 Sep 1944  
Le Culot, Belgium, 13 Feb 1945  
Maastricht, Holland, 4 Apr 1945  
Kassel/Rothwesten, Germany, 10 Jul 1945  
Darmstadt, Germany, 28 Sep 1945  
Furth, Germany, 24 Nov 1945  
Furstenfeldbruck, Germany, 26 Mar 1947-25 Mar 1949  
Itazuke AB, Japan, 26 Sep 1950  
Komaki AB, Japan, 23 Oct 1950  
Taegu AB, South Korea, 27 Dec 1950  
Kimpo, South Korea, 18 Aug 1951  
Misawa AB, Japan, 3 Mar 1955-31 May 1971 (detachment at Don Muang RTAFB, Thailand, Nov 1961-1 May 1962 and 14 Nov-14 Dec 1962; Tan Son Nhut AB, South Vietnam, 14 Dec 1962-5 May 1963, 1 Nov 1963-3 May 1964, and 1 Feb- 6 Nov 1965; Udorn RTAFB, Thailand, 1 Nov 1965-15 Aug 1966; deployed at Tan Son Nhut AB, South Vietnam, Jul 1966-31 Dec 1970)  
Bergstrom AFB, TX, 15 Oct 1971-31 Oct 1975  
Bergstrom AFB, TX, 1 Apr 1982-30 Sep 1989  
Offutt AFB, NE, 1 Jul 1994

## **DEPLOYED STATIONS**

RAF Alconbury, England, 13 Jun-7 Jul 1973

## **ASSIGNMENTS**

Air Defense Department, AAF School of Applied Tactics (attached to 481st Night Fighter Operational Training Group), 1 Oct 1943  
481<sup>st</sup> Night Fighter Operational Training Group, 1 Nov 1943  
IX Tactical Air Command, 18 Apr 1944  
10<sup>th</sup> Photographic Group, 17 May 1944  
IX Tactical Air Command, 16 Feb 1945  
67<sup>th</sup> Tactical Reconnaissance Group, 21 Feb 1945  
363<sup>rd</sup> Tactical Reconnaissance Group, 23 May 1945  
IX Tactical Air Command, 12 Jul 1945  
64<sup>th</sup> Fighter Wing, 1 Aug 1945  
10<sup>th</sup> Reconnaissance Group, 24 Nov 1945  
86<sup>th</sup> Composite Group, 15 May 1947  
United States Air Forces in Europe, 14 Jan 1948

7300<sup>th</sup> Air Force Composite Wing, 1 Jul 1948  
United States Air Forces in Europe (attached to 36<sup>th</sup> Fighter Wing), 13 Aug 1948-25 Mar 1949  
543<sup>rd</sup> Tactical Support Group, 26 Sep 1950  
314<sup>th</sup> Air Division, 1 Dec 1950  
67<sup>th</sup> Tactical Reconnaissance Group, 25 Feb 1951  
67<sup>th</sup> Tactical Reconnaissance Wing, 1 Oct 1957  
39<sup>th</sup> Air Division, 25 Apr 1960  
475<sup>th</sup> Tactical Fighter Wing, 15 Jan 1968  
Fifth Air Force, 15 Mar-31 May 1971  
67<sup>th</sup> Tactical Reconnaissance Wing, 15 Oct 1971-31 Oct 1975  
67<sup>th</sup> Tactical Reconnaissance Wing, 1 Apr 1982-30 Sep 1989  
55<sup>th</sup> Operations Group, 1 Jul 1994

### **ATTACHMENTS**

9<sup>th</sup> Tactical Reconnaissance Group [Prov], 25 Apr-23 May 1945  
49<sup>th</sup> Fighter-Bomber Wing, 27 Dec 1950- 24 Feb 1951  
67<sup>th</sup> Tactical Reconnaissance Wing, 1 Jun-25 Nov 1954 and 1 Jul-30 Sep 1957  
460<sup>th</sup> Tactical Reconnaissance Wing, 8 Jul 1966- [as Detachment 1, 45th TRS]) -31 Dec 1970  
10<sup>th</sup> Tactical Reconnaissance Wing, 13 Jun-7 Jul 1973

### **WEAPON SYSTEMS**

P-70, 1943-1944  
A-20, 1943-1945  
F-3, 1944-1945  
F-3A  
A-26 (later, B-26), 1945-1949  
A-26B  
F-6, 1946-1948  
F-6K  
B-17, 1948  
T-6, 1950-1951  
T-6D  
F-51, 1950- 1953  
F-51D  
RF-51D  
C-47, 1951-1952  
F-80, 1952-1955  
F-80C  
RF-80, 1952-1955  
RF-84, 1955-1958  
RF-101, 1958-1970  
RF-4, 1971-1975  
RF-4C  
RF-4, 1982-1989

RF-4C  
WC-135W  
OC-135B

## **COMMANDERS**

Maj Gillespie

## **HONORS**

### **Service Streamers**

None

### **Campaign Streamers**

World War II

Normandy

Northern France

Rhineland

Ardennes-Alsace

Central Europe

Korea

CCF Intervention

First UN Counteroffensive

CCF Spring Offensive

UN Summer-Fall Offensive

Second Korean Winter

Korea Summer-Fall, 1952

Third Korean Winter

Korea, Summer 1953

Vietnam

Vietnam Advisory

Vietnam Defensive

Vietnam Air Offensive

Vietnam Air Offensive, Phase II

Vietnam Air Offensive, Phase III

Vietnam Air/Ground

Vietnam Air Offensive, Phase IV

TET 69/ Counteroffensive

Vietnam Summer-Fall, 1969

Vietnam Winter-Spring, 1970

Sanctuary Counteroffensive

Southwest Monsoon

## **Armed Forces Expeditionary Streamers**

None

## **Decorations**

Distinguished Unit Citations (Korea)

25 Feb-21 Apr 1951

9 Jul-27 Nov 1951

1 May-27 Jul 1953

Presidential Unit Citations (Southeast Asia)

18 Feb 1966-30 Jun 1967

1 Sep 1967-10 Jul 1968

11 Jul 1968-31 Aug 1969

Air Force Outstanding Unit Awards with Combat "V" Device

1 Nov 1962-31 Oct 1963

1 Nov 1963-31 Dec 1964

1 Jan 1966-30 May 1967

1 Jul 1969-30 Jun 1970

1 Jul-31 Dec 1970

Air Force Outstanding Unit Awards

1 Dec 1952-30 Apr 1953

8 Nov 1961-10 May 1962

16 Oct 1971- 15 May 1973

16 May 1974-31 Oct 1975

1 Jun 1982-31 May 1983

1 Jun 1983-31 May 1984

1 Jan 1985-1 Feb 1986

Republic of Korea Presidential Unit Citation

10 Feb 1951-31 Mar 1953

Republic of Vietnam Gallantry Cross with Palm

1 Apr 1966-30 Apr 1970

## **EMBLEM**



Superimposed on a grass green rimmed sunshine yellow disc, a black and white characterized Sylvester the cat (copyright Warner Bros Cartoons Inc.) nose and tongue are colored crimson. This character is wearing a chocolate-colored coonskin cap with darker brown bandings and shadings, with the tail of the cap flowing to the character's left. Suspended about the cat's neck is a box-type camera, dark gray and black in color. In the right hand, extended outward at shoulder level, a roll of green and white colored maps. The left hand is in a similar position and is holding a Kentucky rifle colored in shades of brown and black. The cat is in a running position with the right foot forward. **SIGNIFICANCE:** The sunshine yellow disc depicts the sun signifying

the organizational dawn-to-dusk operations. The grass-green outer rim is indicative of the brilliant green of Korean rice paddies. The crimson nose and tongue represent the blood shed by the squadron and the willingness to continue to carry on operations in the face of unknown enemy fire, The box type camera represents the photographic element of the reconnaissance mission, while the eyes of the character symbolize the visual reconnaissance aspect of the organization. The Kentucky rifle shows that the organization is armed and ready to destroy by attacking or assist in the destruction of hostile targets. The maps represent the individual ability of the air crewmen to go where sent and satisfactorily pinpoint, for the ground forces, various assigned targets or those of opportunity. The box type camera, coonskin cap, and "Kentucky rifle are further symbolic of the antiquity of visual reconnaissance by aircraft during warfare. The impudence of the character is indicative of the daring adventurous attitude which typifies the national spirit and is being displayed by the modern day fighter pilot. (Approved, 29 Dec 1952. replaced emblem approved, 15 Feb 1944)

## **MOTTO**

## **NICKNAME**

## **OPERATIONS**

The squadron was organized at Orlando Air Base, Florida, and was stationed at Kern County Airport, California, before heading overseas in January 1944. On June 22, 1944, the 423rd was redesignated the 155th Photographic Reconnaissance Squadron. On December 3, 1945, the 155th was redesignated the 45th Tactical Reconnaissance Squadron, Night Photographic.

The 155th participated in the Normandy invasion in June 1944, landed in France in August 1944, and fought its way across northern France into the Low Countries that winter. In December 1944, the 155th was involved in the Battle of the Bulge. The most notable geographic names associated with the 155th were Chormy Down and Chalgrove, England; Rennes, Chateaudun, and St. Dizier, France; LeCulot, Belgium; and Maastricht, Holland.

The squadron crossed into Germany at Kassel/Rothwestern in early July 1945, and was later stationed at Darmstadt, Furth, and Furstenfeldbruck. On July 1, 1948, the unit was redesignated the 45th Tactical Reconnaissance Squadron, Night Photographic and inactivated on March 25, 1949.

As the focus of world attention shifted to the growing crisis in the Orient in 1950, the 45th Tactical Reconnaissance Squadron, Night Photographic was redesignated the 45th Tactical Reconnaissance Squadron on September 19, 1950 and activated on September 26, 1950 at Itazuke, Japan.

When hostilities erupted December 27, 1950, the 45th was deployed to Taegu, Korea, and served in every major campaign throughout the war. In mid-summer 1951, the squadron shifted its base of operations to Kimpo, Korea. On January 1, 1953, the 45th was redesignated the 45th Tactical Reconnaissance Squadron, Photographic-Jet. 45 TRS The flying "Polka Dots" of

the 45th Tac Squadron are charged with front line visual and photographic reconnaissance respectively. They have kept a constant vigil on movements just behind enemy lines. On many occasions pilots have spotted a supply build-up area behind enemy lines and have called in fighter - bombers and lead them into the target area. They have flown over 12,000 reconnaissance missions. Until recently the RF- 51 was the only aircraft being used by the 45th. They are now being replaced by the RF-80. The 45th remained at Kimpo until March 1955 when it relocated to Misawa Air Base, Japan.

The 45th remained at Misawa until the overthrow of President Diem of South Vietnam in November 1962. A detachment of the 45th had earlier been deployed to Thailand due to the turmoil in South Vietnam. In December 1962, the unit deployed to Tan Son Nhut Airfield, Saigon, recalling the detachment deployed to Thailand. The unit was redesignated the 45th Tactical Reconnaissance Squadron on January 1, 1967.

During its nine years in Vietnam, the 45th was involved in most major operations of the war. On May 31, 1971, the unit was inactivated at Tan Son Nhut. On October 5, 1971, the unit was activated at Bergstrom AFB, Texas, replacing the 4th Tactical Reconnaissance Squadron.

The 45th participated in various training exercises while at Bergstrom, including a 1973 deployment to RAF Alconbury, England for a NATO exercise dubbed CREEK BEE II. Later, the unit transferred its aircraft to Shaw AFB, South Carolina, and was inactivated on October 31, 1975.

The squadron was activated again on September 8, 1981 as the 45th Tactical Reconnaissance Training Squadron. It received the RF-4C from the 363rd Tactical Reconnaissance Wing at Shaw AFB, South Carolina and began operations at Bergstrom AFB, Texas on April 1, 1982. The unit trained over 600 students and supported numerous operational deployments and exercises until it was inactivated on September 30, 1989, a result of national budgetary reductions.

On July 1, 1994, the squadron was activated at Offutt AFB, Nebraska, as the 45th Reconnaissance Squadron. It assumed the mission of the former 24th Reconnaissance Squadron, which was inactivated on June 30, 1994. 45th Reconnaissance Squadron personnel are members of a professional team dedicated to the maintenance, operation, and support of the RC/OC/WC/TC-135 aircraft. Squadron personnel fly world-wide reconnaissance and treaty missions on demand, often on extremely short notice. The 45th Reconnaissance Squadron provides data for the National Command Authorities, theater CINCs, and international treaty members.

The Eisenhower Administration originally proposed an Open Skies regime in 1955. Eisenhower's Open Skies regime, presented to the Soviets during the Geneva Summit in Switzerland, was a bilateral initiative that sought to protect against a nuclear attack by superior forces. At the height of the Cold War, the Soviets found this initiative unacceptable.



With a decline in superpower tensions, President George H. W. Bush revived the Open Skies concept in 1989. Negotiations between the North Atlantic Treaty Organization (NATO) and former Warsaw Pact nations to formulate a treaty began in Ottawa, Canada in February 1990, and continued in Budapest, Hungary in April 1990. However, these talks reached no conclusive agreement. With the failed Soviet coup in Moscow, Russian Federation and the subsequent changes it brought, the collapsing Soviet Union agreed to open its territory to aerial observation. Negotiations resumed in Vienna, Austria in November 1991, and the multi-national OST was signed in Helsinki, Finland on 24 March 1992.

Within the framework of the Organization for Security and Cooperation in Europe (OSCE), the goal of the OST is to strengthen peace, stability, and cooperative security by promoting openness and transparency of military forces and activities. The Treaty establishes a regime of aerial observations of the signatories' territory in order to gather information about military forces and activities. By establishing this regime of observation flights, the Treaty seeks to increase confidence and security among its signatories, facilitate verification of other arms control agreements, and provide information for crisis management and conflict prevention.

Overflight of OST states by observing Party aircraft equipped with Treaty-compliant sensors will occur as the focal point of the Treaty's confidence and security building regime. As a result, the entire U.S. sovereign territory and U.S. assets in any OST State Party are susceptible to imaging from Open Skies aircraft during observation flights.

Six months after entry-into-force (EIF) the treaty was opened to accession by any interested State, subject to consensus by the current signatories in the Open Skies Consultative Commission (OSCC). The OST is not restricted geographically.

Observation and demonstration flights may be flown over the entire territory of all signatories and take priority over regular air traffic. For the U.S. this scenario is covered in Federal Aviation Administration (FAA) Order 7110.65P, Air Traffic Control, Paragraph 9-2-21. Transit flights are not covered by this FAA Order. Once the flight plan is agreed upon, only flight safety considerations may restrict the conduct of observation flights.

The OST entered-into-force on 1 January 2002. Three years of phased implementation followed during which no more than 75% of the quota allocation could be conducted. The OST entered into full implementation on 1 January 2006.

It is the Defense Threat Reduction Agency or DTRA that is responsible for the organization and coordination of the missions that fall within the treaty, according to which 42 flights can be authorized every year. These observation flights stem more from good will and transparency on the part of the member nations, especially as information of a sensitive character can now be obtained thanks to increasingly higher performance satellites. The flights can be carried out without warning or limitation over countries that have signed the treaty, the missions not exceeding 96 hours. Representatives of the signatory countries can take part in these flights and control the surveillance operations and are even authorized to take photo-graphs. Three

former WC-135B (s/n 61-2670, 61-2672 and 61-2674) were, therefore, modified between 1993 and 1996 and their weather reconnaissance equipment replaced by that of its new missions and authorized by the treaty (infra red scanner, synthetic aperture radar, photographic equipment). The in-flight refueling receptacle was retained, as were the two Star Cast system windows, although the system itself was removed. The OC-135B is equipped with four cameras installed at the rear of the fuselage, three are of the KS-87E type (one mounted vertically and two obliquely) for taking photo-graphs at low altitude (900 m/2,950 ft), these are placed in the former boomer's compartment. Another, a KA-91C for panoramic sweeping, is mobile from one side of the fuselage to the other and takes photographs at high altitude (10,000 m/32,800 ft).

Thanks to the DARMIS (Data Annotation And Recording System), linked to an radar altimeter precise from zero to 15,000 meters (49,210 ft), each photo is annotated and accompanied by a certain amount of precise data (date, time, position of the plane, etc.), whilst the operators can change the exposure according to atmospheric conditions (light, cloud presence etc.). This equipment is placed in air-conditioned containers in order to optimize its performance; each camera has twelve kilometers of film. The cabin has been completely reorganized and laid out (conference tables, seats, four-channel interphone for private conversations between certain occupants of the plane, fluorescent tube lighting so that surveillance and control operations are not disturbed) and can carry thirty passengers, including a four man OSIA (On-Site Inspection Agency) team, the Federal agency whose role is the application of the treaty in the United States, attached to the American Department of Defense. This team is made up of four men (mission head and his deputy, plus two specialized technicians and linguists), as well as representatives from the countries flown over, the flying crew being provided by the USAF. According to the terms of the treaty, these planes can, in theory, be lent to other signatory nations, the flying crew, however, is still provided by the Air Force, whilst all of the gathered data from these flights is available to all of the signatory countries.

Put into service by the 45th Reconnaissance Squadron ('Sylvester') of the 55th Wing at Offutt, the unit not only carries out missions but also the training of crews as well as aircraft maintenance, the OC-135B are equipped according to the layout of the treaty in such a way that they can carry out their missions without having recourse to the ground based systems, using the INS/GPS (Integrated Inertial Navigation System/GPS). Recently, these planes have been equipped with the Pacer CRAG navigation system, like most of their counterparts.

The first OC-135B mission took place in August 1994 when the representatives of the Ukraine flew over part of the United States territory. Another mission was carried out in very different conditions in 2005 when it was tasked with taking aerial photographs to evaluate the damage caused by hurricane Katrina in the south east of the United States, notably in the New Orleans area.

All the planes have been re-designated OC-135W after the flight engineer's post was cut and the engines were equipped with Hush Kits to bring them into line with the regulations in use in the countries flown over, notably in western Europe and North America.

The Air Force will deploy a WC-135 Constant Phoenix to test for radiation near North Korea in an effort to determine whether the communist country actually did detonate its first thermonuclear weapon, reported the Washington Post. The Constant Phoenix is a modified C-135 equipped with air sampling and collection equipment, making it capable of sampling particulates and gaseous atmospheric debris. The aircraft has external flow-through devices to collect particulates on filter paper and a compressor system for sample holding. The Air Force's two WC-135s, which are operated by Air Combat Command and are based at Offutt AFB, Neb., are used to verify international nuclear test ban treaty compliance. Cockpit crews are assigned to the 45th Reconnaissance Squadron while special equipment operators are assigned to Det. 1 at the Air Force Technical Applications Center, both at Offutt. 2016

Commonly referred to by the media as a 'sniffer plane,' the WC-135 has been in the Air Force inventory since 1965 and currently supports the Limited Test Ban Treaty of 1963, which prohibits any nation from testing nuclear weapons above ground. The Constant Phoenix is the only aircraft in the USAF that conducts air sampling operations. The cockpit crews are from the 45th Reconnaissance Squadron at Offutt Air Force Base, Nebraska, while the special equipment operators are from AFTAC's Detachment 1, also at Offutt AFB.

"The WC-135 flies in direct support of the U.S. Atomic Energy Detection System and maintains the most advanced atmospheric research equipment in the Air Force," said Wittenberg. "The SEOs are highly proficient and well-trained to perform this complex mission. While we don't discuss specific ongoing operational taskings as a matter of policy, my team has averaged more than 160 days of temporary duty or deployment over the past year flying background sorties to establish baseline levels of atmospheric debris. These Airmen are incredibly motivated to get the job done, no matter where in the world that job may be." He added, "We conduct these airborne sampling missions to help us understand what already exists in the atmosphere. We typically fly over the Indian Ocean, Mediterranean Sea, Bay of Bengal, the Polar Regions, the Far East, and off the coasts of South America and Africa to ensure signatories are adhering to established nuclear treaties. It's a busy mission, and an incredibly invaluable one as well."

TOPS is one of five squadrons within AFTAC's wing structure, and the center's commander had nothing but the highest of praise for Wittenberg and his Airmen. "The Airmen of TOPS are truly just that – the tops at what they do," said Col. Steven M. Gorski, the AFTAC commander. "They are responsible for a critical link of information that has the potential to be up-channeled as high as the desk of the President of the United States, and that is a huge responsibility. They continuously demonstrate their expertise, sometimes under austere and exhausting conditions, and I couldn't be more proud of them." Wittenberg matched his commander's accolades. "I am humbled to be a part of such a tight-knit team that takes pride in performing the mission," he said. "From the youngest Airmen to the most senior civilian, I see an organization that cares for each other and epitomizes the Wingman ideals. Their professionalism and teamwork inspire me every day." 2017

RF-101C attrition

56-075 RF-101C Scotty Morgan 45th TRS AAA NVN POW 5 Apr 65

56-045 RF-101C Robert Stubberfield 45th TRS Gunfire NVN KIA 6 May 65

56-067 RF-101C Jack Weatherby 45th TRS Gunfire NVN KIA 29 Jul 65  
56-066 RF-101C Art Burer 45th TRS Gunfire NVN POW 21 Mar 66  
56-172 RF-101C Dan Doughty 45th TRS Gunfire NVN POW 2 Apr 66  
56-175 RF-101C John Rogers 45th TRS Gunfire DMZ Rescue US Navy 3 Nov 66 Destroyer  
56-203 RF-101C Dennis Haney 45th TRS AAA NVN Rescue US Navy 8 Feb 67 Destroyer  
56-225 RF-101C Jack Bond 45th TRS midair SVN "Rescued, hit" 9 Aug 67 UH 1B  
56-182 RF-101C on ground 45th TRS VC SVN Destroyed 17 Jan 68 167 Mortar TSN  
56-163 RF-101C Art Beckstrom 45th TRS AAA NVN Recover Da Nang 9 Mar 68 Scrapped  
56-215 RF-101C Miles Harlow 45th TRS AAA NVN Rescued 7 Aug 68  
56-096 RF-101C Jim Ketchum 45th TRS Eng Fail SVN Rescued 7 Jul 67 AAA?

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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.

Unit history. *67 Tactical Reconnaissance Wing with the United Nations Forces, Korea. 1954.*

Unit history. *67 Tactical Reconnaissance Wing, with the United Nations Forces, Korea. Nd.*