

10th AIR DEFENSE SQUADRON



LINEAGE

10th Aerospace Defense Squadron constituted and activated, 24 Oct 1963

Organized, 15 Nov 1963

Discontinued and inactivated, 1 Jan 1967

Activated, 31 Dec 1970

Inactivated, 1 Nov 1979

Redesignated 10th Air Defense Squadron, 1 Apr 1992

Activated, 13 Apr 1992

Inactivated, 30 Sep 1997

STATIONS

Vandenberg AFB, CA, 15 Nov 1963

Vandenberg AFB, CA, 31 Dec 1970-1 Nov 1979

Wheeler AFB (later, AAF), HI, 13 Apr 1992-30 Sep 1997

ASSIGNMENTS

Air Defense Command, 24 Oct 1963

9th Aerospace Defense Division, 1 Aug 1964-1 Jan 1967

Fourteenth Aerospace Force, 31 Dec 1970

Aerospace Defense Command, 1 Oct 1976-1 Nov 1979

15th Operations Group, 13 Apr 1992-30 Sep 1997

COMMANDERS

HONORS

Service Streamers

None

Campaign Streamers

None

Armed Forces Expeditionary Streamers

None

Decorations

Air Force Outstanding Unit Awards

15 Nov 1963-15 Apr 1966

1 Jul 1966-1 Jan 1967

1 Jan-31 Dec 1975

1 Jul 1976-1 Jun 1978

13 Apr 1992-30 Jun 1993

1 Oct 1996-30 Sep 1997

EMBLEM

On a light blue triangle within a wide Air Force yellow border edged and shaded Air Force Blue, originating from top of triangle curving through center facing viewer's left an Air Force Blue scorpion, claws extended grasping 2 white missiles edged and detailed black issuing diagonally one from right base, one from left pointing to center toward scorpion. Overall ten white stars edged black placed in an inverted stylized pattern of the Scorpius constellation. At base Air Force yellow border forms a scroll inscribed "Caveat Aggressor" in red capital letters. (Approved, 21 Nov 1963)

EMBLEM SIGNIFICANCE

The light blue background is the limitless sky. The ten stars placed in a Scorpius constellation formation over a scorpion alludes to a Greek mythological legend and is symbolic of deadly powers. The missiles held by the scorpion and the motto "Beware Aggressor" refer to the mission of the squadron. The colors blue and golden yellow are the Air Force colors.

MOTTO

NICKNAME

OPERATIONS

The 10 ADS is historically known as the sole operator of the United States' second nuclear-tipped anti-satellite weapon, Program 437. Program 437 was the second anti-satellite weapons program of the U.S. military. The US anti-satellite weapons program began development in the early 1960s and was officially discontinued on 1 April 1975. Program 437 was approved for development by U.S. Secretary of Defense Robert McNamara on November 20, 1962, after a series of tests involving high altitude nuclear explosions. The program's facilities were located on Johnston Island, an isolated island in the north central Pacific Ocean. Program 505, a similar program based out of the Kwajalein Missile Range in the North Pacific, was already up and running by 1962 and was the world's first operational anti-satellite program. The project did complete successful tests, but because it used a slightly shorter ranged (modified) Nike Zeus anti-ballistic missile it was discontinued in 1966 in favor of Program 437's Thor ballistic missile. Program 437's Thor missiles were to be armed with a nuclear weapon, which would

destroy or disable targets through nuclear explosion or the resulting electromagnetic pulse. Though the program would routinely run successful tests with unarmed Thor missiles, the only high altitude nuclear explosions were conducted through Operations Argus, Hardtack I, and Dominic between 1958-1962. Operation Argus operated out of the South Atlantic, while Hardtack and Dominic conducted their high altitude tests from the Johnston Island facilities. Some results of these tests, Dominic's 1962 Starfish Prime test in particular, presented concerns throughout the program's existence. In addition to the wide spread effects of the nuclear explosion's electromagnetic pulse, which inadvertently damaged many satellites as well as land based electronics as far as 1500 km away, a large amount of charged particle radiation was released by the nuclear explosion. This radiation became trapped by the Earth's magnetic field, creating artificial belts of radiation 100 to 1,000 times stronger than background levels. The heightened levels of radiation eventually crippled one-third of all satellites in low orbit, while rendering seven others completely useless, including the first commercial communication satellite ever, Telstar. It was eventually concluded that due to the wide radius of damage, wartime deployment of Program 437 would result in indiscriminate destruction of friendly and enemy satellites, potentially destabilizing or escalating otherwise non-nuclear conflicts. In addition to these problems, the Soviets deployed numerous military satellites, making specific targeting impractical or ineffective. Furthermore, the United States Air Force had a limited supply of Thor missiles, and all military resources (especially financial) had become increasingly strained with the US involvement in the Vietnam War. In October 1970, the Department of Defense transferred Program 437 to standby status as an economic measure. Test launches were no longer run, and the weapons system would take fourteen to thirty days to intercept targets, requiring components stored at Vandenberg Air Force Base to be airlifted by a C-124 Globemaster II to Johnston Island for deployment. These obstacles further degraded the weapon's suitability and effectiveness for war. On 19 August 1972, Hurricane Celeste destroyed most of the facilities and guidance computers at Johnston. Though the systems were able to be restored by September 1972, unspecified damage caused them to fail on 8 December. The program became fully repaired and restored by 29 March 1973, and remained in standby status until the anti-satellite mission on the Johnston Island facilities were ceased on 10 August 1974. Program 437 was officially terminated on 6 March 1975 at the request of NORAD, and on 1 April 1975 the Department of Defense terminated funding for any anti-satellite programs or development. In January 1977, at the end of his term of office, then President Gerald Ford issued a directive for the DoD to again enter research and development on an operational anti-satellite program. It was an order his successor, President Jimmy Carter, followed through on, and anti-satellite technology has continued to be in some form of research or development since. Two missiles were kept on alert at Johnston Island, and two were kept in war reserve at Vandenberg AFB, California. Program 437 Thors could intercept low earth orbiting satellites up to an altitude of 700 nautical and a cross-range distance of 1,500 nautical miles (2,800 km). Two missiles were readied for launch, one as primary launcher and the other as a hot back-up in case of primary failure. Launch windows were as small as one second, also necessitating the dual missiles. Once the missile's trajectory hit the target's orbital path, the one megaton Mark 49 warhead would explode, setting off a blast radius of five miles (8 km).

28 May 1964- first Combat Training Launch (CTL)

29 May 1964- Program 437 declared Initial Operating Capability (IOC)

10 Jun 1964- Program 437 declared Full Operating Capability (IOC)

20 Sep 1964- President Lyndon Johnson reveals existence of Nike-Zeus and Program 437 anti-satellite weapons during campaign speech
7 Dec 1965- first 437AP launch
18 Jan 1966- second 437AP launch (successful)
12 Mar 1966- third 437AP launch (successful)
30 Nov 1966- Program 437AP is formally cancelled by Headquarters USAF
1967 31 Mar 1967 - CTL conducted
1968 14 May 1968- CTL conducted
20 Nov - CTL conducted
27 Mar 1970- Final Program 437 CTL launched
4 May 1970 - Deputy Defense Secretary David Packard directs the Air Force to accelerate the phase down of Program 437 to standby status by end of fiscal year.
19 Aug 1972- Hurricane Celeste hits Johnston Island, damaging Program 437 launch facilities and computers
1 Apr 1975- Department of Defense officially terminates Program 437

Air Force Order of Battle
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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.