

51 MUNITIONS SQUADRON



MISSION

The 51 Munitions Squadron is one of four squadrons assigned to the 51 Maintenance Group. It is the most permanently forward-deployed munitions squadron in the world and is responsible for a \$1.1 billion dollar conventional munitions stockpile of more than 12 million items. The squadron has an average of 300 personnel assigned in maintenance and administrative support specialties. The technicians assigned maintain conventional munitions, precision-guided missiles, guided bomb units, \$700,000 of munitions materiel handling equipment, and a fleet of 79 vehicles.

Additionally, the squadron is responsible for the maintenance of aircraft racks, adapters, and pylons, as well as 20mm and 30mm gun systems. The unit supports training and contingency operations for 57 assigned F-16, A-10, U-2, and HH-60 aircraft. The squadron is responsible for 217 acres of land in three geographically separated munitions storage areas and operating locations. In addition to the 51 Fighter Wing stockpile, the munitions maintainers provide oversight for the Republic of Korea Osan MAGNUM munitions storage area.

LINEAGE

51 Aviation Depot Squadron activated, 25 Jul 1958
Redesignated 51 Munitions Maintenance Squadron
Inactivated
Redesignated 51 Munitions Squadron and activated

STATIONS

Vandenberg AFB, CA, 25 Jul 1958-30 Sep 1972
Osan AB, South Korea

ASSIGNMENTS

704 Strategic Missile Wing
1 Missile Division, 1 Jul 1959
392 Strategic Missile Wing, 18 Oct 1961
51 Maintenance Group

COMMANDERS

Maj James A. Wadell
LTC Frank J. Gago
LTC Richard F. Savage

HONORS

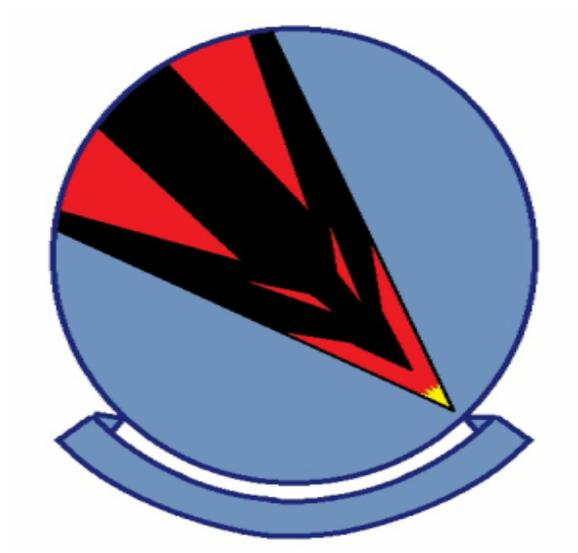
Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM



51 Aviation Depot Squadron emblem: On a sky blue disc edged Air Force blue, a pile in point bendwise, red tipped with Air Force golden yellow, bearing a representation of a space vehicle bendwise throughout, silhouetted black, pointing downward. MOTTO: On a sky blue scroll edged and inscribed Air Force blue, PRIMI TOTO IN CAELI SPATIO, First in Space. **SIGNIFICANCE:** The emblem is symbolic of the squadron and its mission and represents the re-entry of a space vehicle into the earth's atmosphere under extreme stress and intense heat. The black color represents the intense cold and perpetual blackness of outer space through which the vehicle travels while

the red and yellow colors indicate the immense speed and heat encountered as the vehicle approaches the earth. The sky-blue background represents the earth's atmosphere. (Approved, 25 Feb 1960)

51 Munitions Maintenance Squadron emblem: The space vehicle is, suggested by design rather than clearly delineated. The black color represents the intense cold and perpetual blackness of outer space through which the vehicle travels. The immense speed and heat generated by the vehicle as it approaches the earth is indicated by the red and yellow colors which radiate from the apex of the reentry wave. The light blue background, of course, represents the earth's atmosphere. (Approved, 26 Feb 1969)

51 Munitions Squadron emblem: On a disc per bend sinister Azure and Vert, overall an American bald eagle in flight Proper, grasping in dexter talon a bomb bendwise sinister Argent, parallel to a missile of the same emitting a contrail of the first terminating to sinister, all within a narrow border Yellow. Attached above the disk, a Green scroll edged with a narrow Yellow border and inscribed "LETHAL COMBAT SUPPORT" in Yellow letters. Attached below the disk, a Green scroll edged with a narrow Yellow border and inscribed "51 MUNITIONS SQ" in Yellow letters. **SIGNIFICANCE:** 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 eagle represents the strength and courage of all unit members in defending democracy and freedom worldwide. The bomb and missile symbolize the aircraft armament and munitions career fields and the lethal combat support specialties.

MOTTO

Primi Toto in Caeli Spatio--First In Space

OPERATIONS

Since its organization in July 1958, the 51 MMS has shouldered the responsibility of providing re-entry vehicles for Vandenberg. Unlike the average munitions maintenance squadron in the Strategic Air Command, which maintains re-entry vehicles for only one missile system, re-entry vehicle analyst teams from the 51 MMS have been assembling, checking and mating re-entry vehicles for every major missile system in the Air Force inventory.

It matters little if the re-entry vehicle is a triple-ton giant of the Titan class or the slender, needle-nosed sphere on a Minuteman, enclosed is the vast array of electronic gear and multi-purpose instruments that are the laboratory from which scientists will extract knowledge.

The 51 MMS has taken a danger-laden task and reduced the hazards until the greatest threat to its personnel is the drive to and from work. Concerned with explosives, ranging from the smallest caliber pistol round to the greatest demolition charge, safety is second nature to the men of the 51. Each man is aware that the re-entry vehicle requires total care, and he treats all phases of his work and equipment with the same respect. This, in effect, gives all facets of the operation top level priority.

Although the name of the organization gives some hint of the activities, relatively little is known of what actually goes on inside the fenced perimeter of a munitions maintenance unit. The varied skills and diversified talents of munitions experts are veiled in a powdery cloak of secrecy. The care and exactness with which the crews prepare a re-entry vehicle for space travel is done behind locked doors.

Prior to the delivery of the completed re-entry vehicle to the site, dozens of man-hours are spent in preparation. First a multitude of components undergo rigid testing, which must survive the near-zero cold of outer space and also, the incandescent temperatures of re-entry into the atmosphere.

Once all components are proved acceptable, the RV team assembles them into what must be a 100 per cent reliable missile sub-system. The assembly may mean one day's work, as with the Minuteman intercontinental ballistic missile re-entry vehicle, or it may mean several days of exacting and tedious labor, necessary to produce the RV for the Titan II ICBM.

After all components are assembled, the entire system is again tested to ensure that no faults have occurred during the assembly. Should the vehicle fail this final test, it may be necessary to completely disassemble it and start again. Only through constant training and a high degree of supervisory skills, are such occurrences prevented.

Re-entry vehicle maintenance is by no means the only phase of the 51's mission. The storage and handling of all types of explosives is the assignment of the squadron's munitions storage branch. The unit receives every ordinance item used at Vandenberg. Each is inspected, then properly stored in a specially designed bunker. With the turnover of South Vandenberg to the Air Force, the additional duties of caring for the large solid propellant boosters for the thrust augmented Thor and the major stages of the Scout rocket, have also fallen into the hands of the 51. Trained in proper explosive handling techniques, the men make their seemingly hazardous job safer than driving to work.

Not so docile is the work of the explosive ordnance disposal section. Equivalent to the civilian bomb squad, the men of the EOD team must be familiar with all types of weapons and explosives. Should an old unexploded projectile or makeshift bomb be reported, the EOD team removes or disarms it immediately.

Each operational ICBM launched here is tipped with a reentry vehicle (RV) which first must pass through their hands. As technicians, these men support local units and missile task forces from the operational bases during the buildup of these RV's for the Demonstration and Shakedown Operations and Operational Tests. How well these tests go is dependent upon how well those tasks are performed.

In addition to this support of the Strategic Air Command's deterrent force, the munitions maintenance function also supports Air Force Systems Command, National Aeronautical and

Space Administration and the contractors operating here by storing large solid-fuel motors in preparation for use in the many different aerospace programs taking place here.

The squadron's functions have not always remained so closely related to the missile field. The "Great Lompoc Flood" of 1969, for example, required it to deviate somewhat from its normal activities. When the long span of the Vandenberg Surf Bridge collapsed from the force of the rushing waters, the Explosive Ordnance Disposal (EOD) Section used plastic mines and explosives to destroy the remaining portions of the bridge so that the flood waters would subside in the Lompoc Valley.



Lt Col Clyde G. Evans, 1976

DEPARTMENT OF THE AIR FORCE ORGANIZATIONAL HISTORIES

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Sources

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

The Institute of Heraldry. U.S. Army. Fort Belvoir, Virginia.

Unit yearbook. *51 Munitions Maintenance Squadron, Osan AB, Korea, 1976.*

Unit yearbook. *51 Munitions Maintenance Squadron, Osan AB, Korea, 1977-1978.*