

Marine Air Control Squadron 4 History

Marine Air Control Squadron 4's (MACS-4) legacy began 5 May 1944 at Marine Corps Air Station Cherry Point, North Carolina. Initially called Air Warning Squadron 13, the squadron was assigned to 1st Marine Air Warning Group, 9th Marine Aircraft Wing.

Initial Mission Statement:

“Furnish early-warning information on approaching air and sea attack and to provide fighter direction against this attack.”

MACS-4 was re-designated on 1 August 1946 as Marine Ground Control Intercept Squadron 4 and assigned to Marine Air Control Group 2. Marine ground controlled intercept was still in its formative years, and many changes were still being implemented. The fledgling squadron would not see combat during World War II. In fact, it was deactivated just five days short of its third anniversary on 30 April 1947.

On 30 June 1951, as the U.S. became more involved in the Korean War, Marine Ground Control Intercept Squadron 4 was activated once again at Marine Corps Air Station Santa Ana, California. This time it was assigned to Marine Air Control Group 3, Air Fleet Marine Force, Pacific. Along with the new location came a new mission statement:

New mission statement:

“Warn of approach of enemy aircraft, to control interceptions by friendly planes and to receive, evaluate, collate and disseminate all information on air and surface craft furnished by an Air Defense Control Center.”

The end of hostilities in Korea caused considerable activity with regard to the future of Marine Corps aviation. The Korean War provided the newly established Marine Air Command and Control System (MACCS) with the opportunity to develop and test new and innovative air command and control doctrine, procedures, and equipment. Many lessons were learned during the war and numerous conferences were held concerning Marine Corps aviation. As a result, the squadron was once again re-designated. On 15 February, 1954 Marine Ground Controlled Intercept Squadron 4 was given its current designation as Marine Air Control Squadron 4. Along with the new name came a modified mission statement.

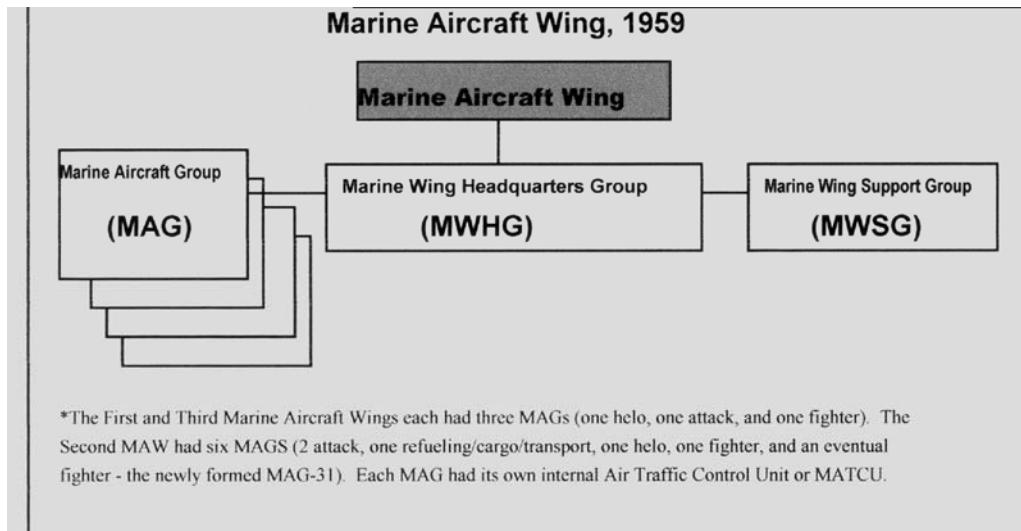
New mission statement:

“Install, operate and maintain ground electronics equipment for the detection and interception of enemy air targets and control of aircraft of the Marine Aircraft Wing in support of fleet Marine Force operations”.

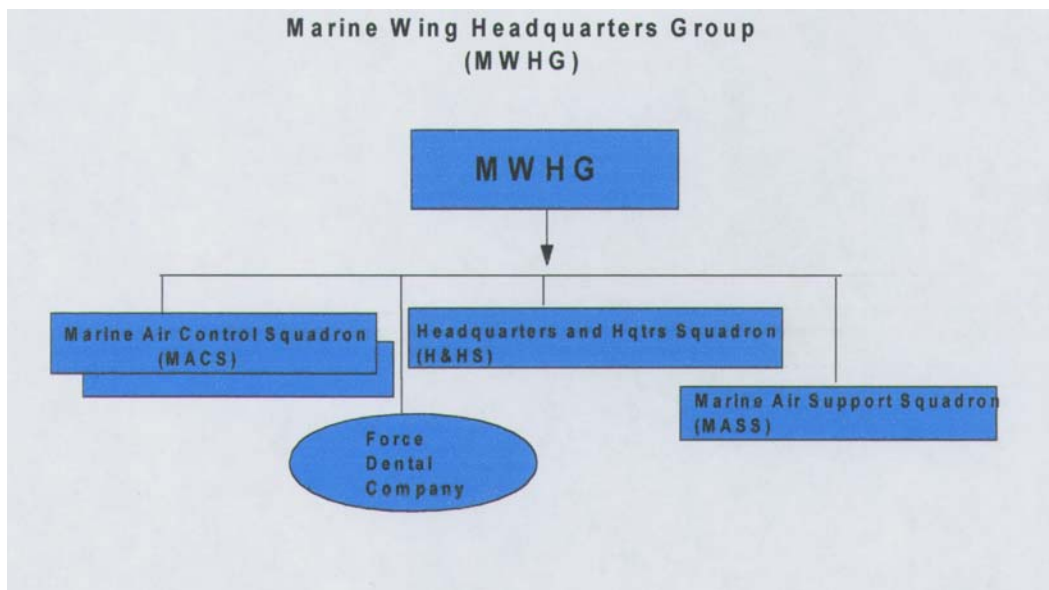
A short time later the mission statement changed again due to a realized threat posed to the Marine Corps by guided missiles. The modified mission statement now read:

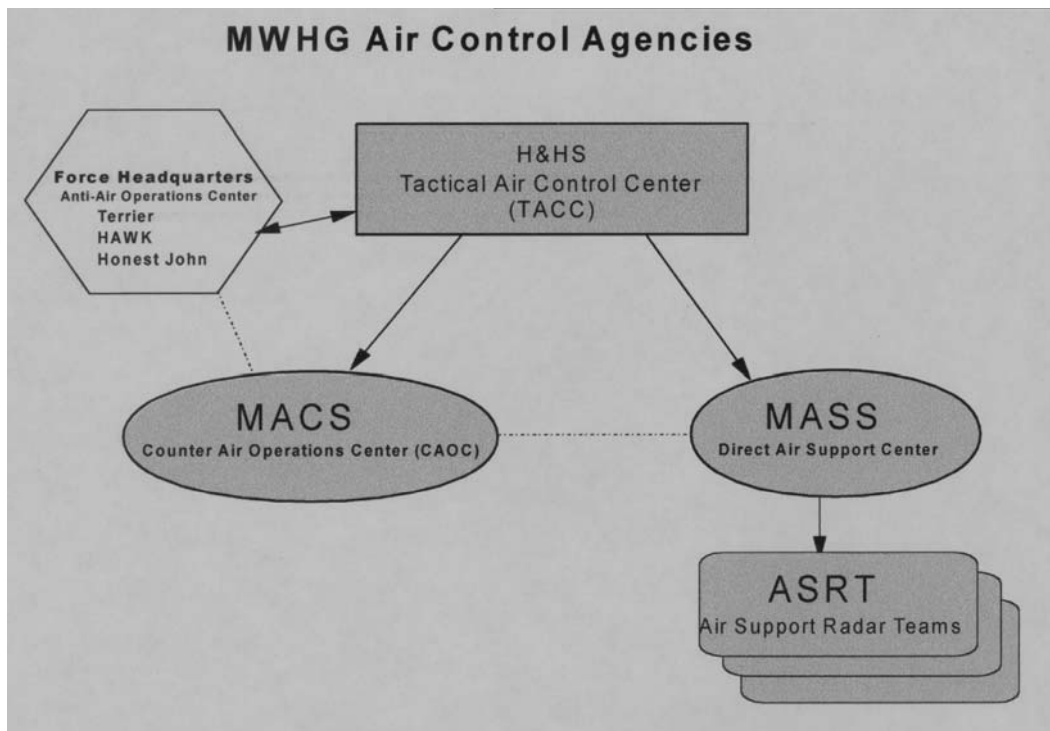
“Provide air surveillance and control of aircraft and surface-to-air missiles for anti-air warfare in support of fleet Marine Force operations”.

From July 1959 to September 1961 MACS-4 was relocated three times. In July of 1959 the squadron relocated from Santa Ana, California to Iwakuni, Japan and was assigned to Marine Wing Headquarters Group, 1ST Marine Aircraft Wing. The figures below show a typical Marine Aircraft Wing organization as late as 1959, one which remained constant from approximately 1955 -1967.



The figures below show the organization of the Marine Wing Headquarters Group.





MWHG Tactical Air Control Agencies

The squadron was relocated once again in October 1960 and returned to Santa Ana, California although, this time the squadron was assigned to 3RD Marine Aircraft Wing. The next move was in September of 1961 when the squadron returned to Iwakuni, Japan. Again, it was assigned to the 1ST Marine Aircraft Wing.

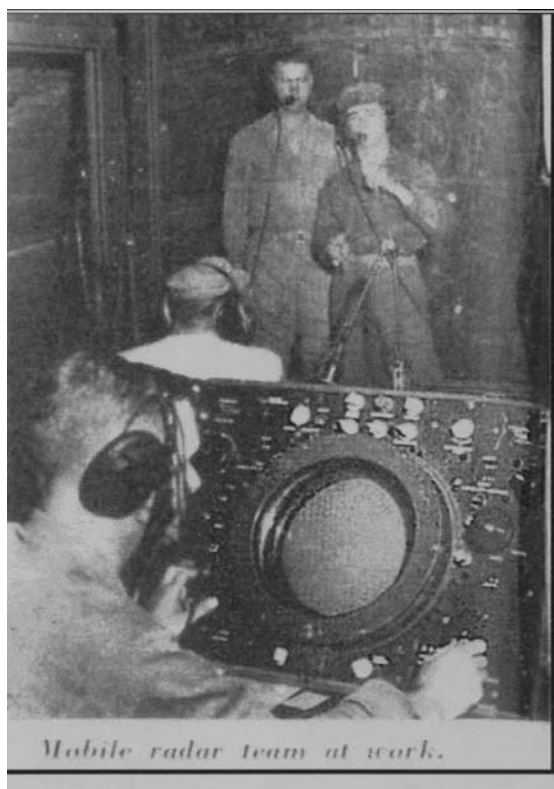
Thailand

MACS-4 deployed to Udorn, Thailand on 20 May 1962 as an element of the Provisional Marine Air Group, 3rd Marine Expeditionary Unit in connection with communist threat to that country. The advanced party departed 20 May and by 1030 on 21 May the first radar was set up and operating. Over the next two weeks the remaining personnel and equipment would join the advanced party. The squadron deployed with the AN/TPS-15 long range search radar; the AN/MPS-16 height finding radar, the AN/MPS-11 search radar, and an assortment of communications equipment, generators, vehicles, and support equipment. Initially assigned to perform Counter Air Operations Center (CAOC) functions, the mission was to provide radar coverage for air defense and aircraft control for the Provisional Aircraft Group. However, the squadron would also perform the functions of a TACC and DASC (functions inherent to the MACS at the time) and performed tasks such as navigational assistance, interception of unidentified aircraft, relaying of flight clearance, Ground Controlled Intercept GCI, as well as providing personnel and equipment for the approach control division of Marine Air Traffic Control Units 66 (MATCU-66), which would later merge with MACS 4. The squadron was the northern most element of U.S. Forces in Thailand. MACS 4 operated the equipment for a total of 547 hours, controlled 488 aircraft, and conducted 94 intercepts. The last remaining elements of the squadron left Thailand on 4 July 1963.

In the early years of Marine aviation control, MACS units deployed with one and two dimensional radars, which interconnected to individual controller "scopes." These stand alone controller consoles were arrayed in small portable shelters that resembled clamshells around plexiglass status boards. Individual controllers would track aircraft on their own console and talk via stand alone radios to aircraft. There was no shared information among the controllers other

than what they saw in terms of raw radar video on their consoles. The plotters on the status boards would use grease pencils to mark what was called out to them from personnel on scopes.

However, all of that was about to change. Plans had been in the works since the late 1950s that would make revolutionary changes in Marine Air Control Squadron equipment. A new automated data system called the Marine Tactical Data Systems (MTDS) was being tested. New radars were also being tested; radars such as the AN/TPS-22 long range search radar, the AN/TPS-34 search radar, the AN/TPS-37 height finding radar, and the AN/UPS-1 medium range search radar. Organizational changes were also underway. The old CAOC was phased out and replaced by the Tactical Air Operations Center (TAOC).



Mobile radar team at work.

CAOC Radar Operators and Plotters, around 1960

Vietnam

In 1967, MACS-4 would finally get its chance to prove its mettle in combat. An advanced party of 5 officers and 4 enlisted Marines departed El Torro, California arriving in Da Nang, Republic of Vietnam, on the 25th of April, 1967. With a TO of 254 Marines and civilians, the squadron was operational and assumed its mission on 6 July 1967.

The squadron arrived with the new automated Marine Tactical Data System. Gone were the days of radar tracks being manually plotted and transmitted over radio or phone lines. The new system represented a quantum leap forward in technology and capability, providing the Marine Corps with not only a better capability to control its own aviation assets, but also the capability to perform as a unique joint platform that could pass Navy and Air Force tactical data to and from other service agencies. This achievement was remarkable in 1967 and was made even more so by the fact that this same system, dating back to the 1950s, deployed again to Operation Desert Storm in 1990 providing the same capabilities 25 years after its original fielding. Other equipment MACS-4 took to Vietnam included the AN/TPS-22 long range search radar, the AN/TPS-34 search radar, the AN/TPS-37 height finding radar, and the AN/UPS-1 medium range search radar.



The Marine Tactical Data System is airborne and permits a variety of mixes.

Helicopters transporting the MTDS equipment from ship to shore in 1967

MACS-4 was located on a high promontory overlooking the South China Sea. This site, known as “Monkey Mountain”, would be the squadron’s home for the next three years and nine months.

In addition to providing navigational assistance to hundreds of thousands of aircraft and supporting hundreds of combat operations, MACS-4 also provided a vital data link known as the Southeast Asia Interface. The squadron enabled defense and air control data to be passed from Thailand to Da Nang to 7th Fleet ships in the Tonkin Gulf, and vice versa.

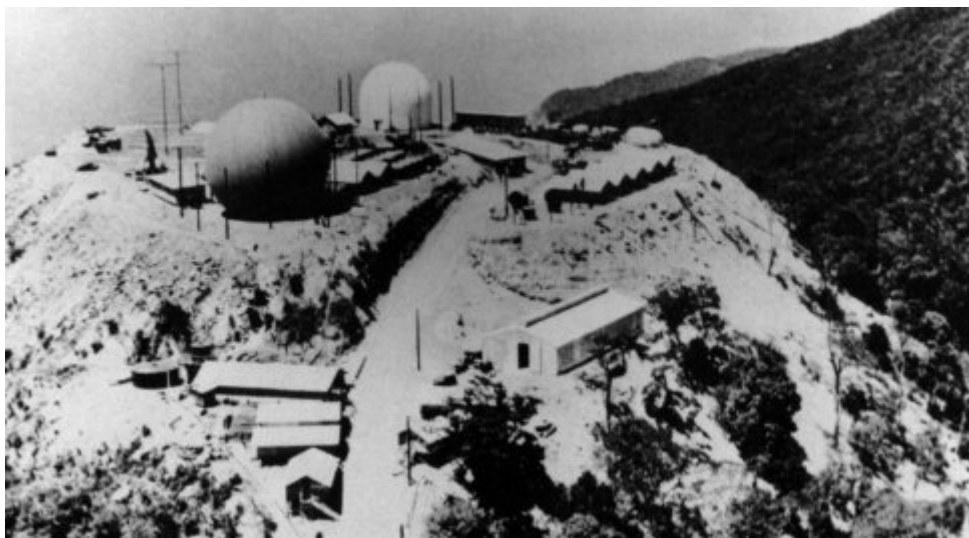


Photo courtesy of LtCol William A. Cohn, USMC (Ret)

The Marine Tactical Air Operations Center (TAOC), located on Monkey Mountain on the Tiensha Peninsula east of Da Nang, was equipped with the latest in computer technology. The TAOC, run by Marine Air Control Squadron (MACS) 4, required ample space for its sundry radars and antennae.

MACS-4 made its last transmission from Vietnam just after midnight on 31 January 1971. The next day the squadron began tearing down and packing up. That same day, the squadron embarked on the USS Alamo (LSD-33) and headed to Santa Ana, California where the squadron would be deactivated.

Though the squadron was officially deactivated, a small detachment of Marines originally attached to MACS-4 would stay in Vietnam until 14 February 1973 to operate and maintain the AN/TYQ-3 (Tactical Data Communications Center) in order to maintain the Southeast Asia Interface. This detachment would fall under MACS-4 once again when the squadron was reactivated just four months after its deactivation. In all, MACS-4's involvement in Vietnam would span nearly six years.

On 15 June 1971, MACS-4 and MACS-8 held a combined deactivation, reactivation and change of command ceremony where MACS-8 would be deactivated and all personnel and equipment would now fall under the newly reactivated MACS-4. The squadron was assigned to 1ST Marine Aircraft Wing, Marine Air Control Group 18.

By July of 1971, MACS-4 was working out of three locations; MACS 4 Headquarters was on MCAS Futenma in Okinawa, Japan, MACS 4A was on Iwakuni, and the TDCC detachment was still in Vietnam.

After Vietnam, it would be a long time before MACS-4 would deploy to another war zone. From the 1970s through the early 90s, the squadron would hone its skills by participating in hundreds of exercises. At the same time, new equipment would be added to its inventory; other equipment was modified, deleted, or upgraded. In the early 1980s MACS-4 received the AN/TPS-63 and the AN/TPS-59 (both still in use today). Structure, tactics, techniques, and procedures would also see change.

On 4 October, 1994 MACS-4 would get a new mission. Marine Air Traffic Control Squadron 18 (MATCS-18) would stand down as a separate squadron and merge with MACS-4.

Marine Air Traffic Control Squadron 18

Prior to the MATCS 18's activation and eventual merger with MACS-4, expeditionary air traffic control services were provided by Marine Air Traffic Control Units (MATCU). These units were organized to be integral components of Marine Air Groups (MAG). Each fixed wing MAG had one MATCU and each rotary wing MAG had two MATCUs. The additional assets in the rotary wings were used to provide for remote or satellite fields and landing zones.

From 1973 through 1975 the Marine Corps began to experience critical shortages of operators and maintainers of MATCU equipment. In an effort to more effectively utilize the personnel available, the Marine Corps decided to form an Air Traffic Control Squadron within the Marine Air Control Group (MACG). As a result, MATCS 18 was activated October 1978 and assigned to MACG-18 located aboard Marine Corps Air Station Futenma.

MATCS-18 was formed from MATCUs 60, 62, 66, and 70. Once the units were combined, the squadron consisted of a Headquarters element and four detachments. Detachments Alpha and Delta were located aboard MCAS Futenma, Okinawa. Detachment Bravo was in Hawaii and worked aboard MCAS Kaneohe Bay. Detachment Charlie was located in Twenty-nine Palms, California.

MATCS-18 Initial Mission Statement

“To provide Air Traffic Control (ATC) Services at Expeditionary Airfields and Remote Landing Sites as Part of the Marine Air Command and Control System (MACCS).”

Though, MATCS-18 was never involved in Vietnam as a squadron, the MATCU's that would later make up the squadron were seasoned veterans of the war. MATCU-62 and MATCU-70 would serve in Dong Ha, Quang Tri, and Khe Sanh, Vietnam. Their mission was to provide air traffic control services under all weather conditions.



MATCU-66, another experienced and seasoned air traffic control unit, deployed alongside MACS-4 to Udorn, Thailand in 1962 as an element of the Provisional Marine Air Group, 3rd Marine Expeditionary Unit in connection with communist threat to that country. The squadrons were the northern most element of U.S. Forces in Thailand.

Throughout its 16 years of service, MATCS-18 performed its assigned mission, provided short call backup air traffic control for major airfields, and deployed Marines and detachments in most major operations conducted within the Far and Middle East. Such operations included: Operation Sea Angle, Operations Desert Shield and Desert Storm, Operations Restore Hope and Valiant Blitz, Valiant Usher, Bear Hunt, Cope Thunder, Cobra Gold, Kangaroo, Pitch Black, Aces North, and Team Spirit.

After Operation Desert Shield and Desert Storm, the Marine Corps, once again, began realigning and combining units. MATCS-18 was merged with MACS-4 in October 1994, ending its separate mission and tying its tried and tested air traffic control assets and techniques to MACS 4. As could be expected, the merger of MATCS-18 and MACS-4 brought about yet another change to the mission. MACS-4's mission statement was changed once again. This one is still in use today:

New Mission Statement:

“Provide air surveillance and the control of aircraft and surface-to-air weapons for anti-air warfare, continuous all-weather radar and non-radar ATC services, and airspace management in support of a Marine Air-Ground Task Force (MAGTF).”

Operations Noble Eagle and Enduring Freedom

Just days after the attacks of September 11, 2001, Marine Air Control Squadron 4 was called to action once again. The squadron deployed an Early Warning Control detachment to Anderson Air Force Base on Guam in support of Operation Noble Eagle. At the same time, a Marine Air Traffic Control Mobile Team (MMT) deployed, installed, operated, and maintained an AN/TPN-30A in support of aviation operations in the same location. The mission consisted of air traffic control, air surveillance, air control, and data link operations with the Air Force Air Operations Center.

With equipment and personnel now scattered throughout the western pacific, Marine Air Control Squadron 4 was tasked with a new assignment: Operation Enduring Freedom. In April 2002 the squadron began to move equipment and personnel from Guam and several other locations to Afghanistan and Uzbekistan. The Tactical Air Operations Center detachment deploy to Kandahar, Afghanistan while both Air Traffic Control detachments (A and B) would deploy to Karshi-Kanabad, Uzbekistan. In all, MACS-4 deployed 243 Marines, 30 containers, and 30 pieces of rolling stock in support of Operation Enduring Freedom. Since the war in Iraq and Afghanistan began, the squadron has provided continuous support by sending detachments and individual augments.

MACS-4 has had a long and illustrious history. The equipment and procedures in place today are the result of years of technological advances and lessons learned from previous wars and exercises. To continue to meet the challenge presented by the ever-changing threat, MACS-4 will continue to evolve, as it has for the past sixty-five years.

Happy birthday MACS-4!