1st MANNED SPACEFLIGHT CONTROL SQUADRON

MISSION

LINEAGE[1]
1st Manned Spaceflight Control Squadron

STATIONS
Lyndon B. Johnson Space Center, Houston, Texas

ASSIGNMENTS

COMMANDERS

HONORS
Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

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

The flying deltoid represents manned spaceflight, the new and expanding Air Force "High Frontier". The Air Force or coloring symbolizes the sun and the excellence required of Air Force personnel. It is also the primary link between the squadron and its parent organization. The stripes emanating from the deltoid form an exhaust plume signifying the enormous power and resolve required to fly through the "surly bonds" of the earth's atmosphere. The stripes represent the first group of American astronauts, all military, who were the original space pioneers. The eagle represents a timeless symbol of military strength. The elevated wings illustrated the integrity and professionalism with which the squadron embraces its mission. The eagle and the deltoid fly above the Brittany azure earth charting a course through the ultramarine azure sky, the primary theatre of Air Force Operations. The Star, Altair, literally means "the flier", is a star of the first magnitude. The single moon portrays the vastness of the heavens a reminder of past accomplishments as well as a symbol of future challenges.

MOTTO

OPERATIONS[2]

The Defense Department is dismantling a secretive, coast-to-coast space complex that cost at least $5 billion and was intended to operate in collaboration with the civilian space shuttle. Over the last three years, the department has mothballed a $3.3 billion spaceport in California and scrapped a sprawling control center in Colorado. Last year, it disbanded a secret cadre of 32 astronauts based in Los Angeles.

Now, in the latest sign of withdrawal, a secret military payload is to be launched on the civilian space shuttle Tuesday without help from the Air Force's Manned Spaceflight Control Squadron in Houston. That squadron was disbanded June 30; this will be the first time the secretive group, which had 134 military officers and experts at its peak, has had no role in lofting a military payload on the shuttle. Eggs in an Unmanned Basket

The Pentagon is ending its two-decade shuttle collaboration with the civilian space agency because it has decided that manned spaceships are too risky for its astronauts and its payloads, which include satellites intended to spy on other countries or warn of a missile attack. Instead, it has bought its own fleet of big unmanned rockets. Today, the hundred or more Defense Department shuttle missions once envisioned for this century have been cut so drastically that only seven shuttle flights remain dedicated solely to the military. After they are ended in the early 1990's, the collaboration between the Pentagon and the National Aeronautics and Space Administration will be over, although military astronauts may continue to fly an occasional mission.

But some experts say the Pentagon is making a mistake by putting all its eggs in the basket of unmanned rockets. The danger, they say, is that a rocket failure could ground the entire rocket fleet, preventing the launching of crucial military satellites, just as the 1986 Challenger disaster did when the military relied solely on manned spaceships. These experts argue that it would make more sense to launch military payloads on both shuttles and rockets.

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[2] William J. Broad. *Pentagon Leaves the Shuttle Program* New York Times. *7* Aug 1989.

''The military may have overreacted to the Challenger accident and may be in danger of becoming overly reliant on expendable launch vehicles,'' said John E. Pike, director of space policy for the Federation of American Scientists, a private group based in Washington. ''As a result, the shuttle may not be fully utilized. This will increase the costs of space transportation for remaining shuttle users.'' New Ground Rules Air Force officials disagree that they need the shuttle.

''The Challenger accident changed the ground rules,'' Richard A. McCormick, assistant to the Secretary of the Air Force for space policy, said in an interview. ''The problem we had was that everything was going on the shuttle.'' Now, he said, the program has achieved low risk by using a ''mixed fleet'' of different kinds of unmanned rockets.

The dismantling of the military's shuttle complex has meant not only the loss of billions of dollars in Federal investments but also wrenching change for hundreds of military personnel. ''It's disappointing,'' Maj. Frank M. DeArmand, a would-be Air Force astronaut, said in an interview. ''We all had the excitement and expectation of flying on the shuttle. But I'm not bitter. It was the right decision.'' Michael Cassutt, the author of ''Who's Who in Space,'' an expert on the Defense Department's shuttle program, said relations between the military and the space agency had been strained for some time and seemed beyond repair.

The two ''have been separated for years, but the final papers are now showing up,'' he said, adding, ''The divorce seems to be final.'' Challenger: The Final Blow The military's disenchantment with the shuttle began in the early 1980's, when poor shuttle performance, budget cuts and repeated delays caused only a fraction of proposed flights to get off the ground. The Challenger disaster of January 1986, which killed seven astronauts and grounded the shuttle program for 32 months, dealt the final blow, giving the Defense Department a reason to cut ties to the space agency's shuttles and an opportunity to acquire many more unmanned rockets.

In the very beginning, the Pentagon was excited by the prospect of manned spaceflight. In the early 1960's, it studied ways to send military astronauts aloft in various types of spaceships, including winged ones. When NASA lobbied the White House for the current shuttle in the late 1960's and early 1970's, the Air Force grudgingly joined the project, attracted by the idea but wary of yielding its pre-eminence in space to civilians. To White House budget planners, the costly civilian shuttle program made economic sense only if it launched all American space payloads.

In the late 1970's, amid great secrecy, the military began building a coast-to-coast organization to take advantage of the civilian shuttles to launch top-secret payloads like spy and early-warning satellites. In 1979, the Air Force Space Division in Los Angeles founded the Manned Spaceflight Engineer Program, an elite corps of military astronauts that was to specialize in deploying top-secret payloads. Mr. Cassutt said corps members were told they would fly in space at least once. The secret program, he added, eventually trained 32 engineers and had an annual budget of about $4 million.

Its first member to ride the shuttle, Maj. Gary E. Payton, did so on Jan. 24, 1985. His name was made public but his role played down. Major Payton helped deploy what was believed to be an electronic intelligence-gathering satellite. A colleague, Maj. William A. Pailes, flew a shuttle into space on Oct. 4, 1985. Though none of its astronauts were on board the Challenger,

that disaster marked the beginning of the end of the clandestine program. NASA declared that it wanted only its own astronauts on board, and the Air Force decided the shuttle was too risky. Other parts of the military's shuttle complex have seen similar cycles of growth and decline. For instance, in 1979 a group of Air Force officers was set up in Houston to help direct military shuttle flights. Sometimes wearing civilian clothes to be less conspicuous at the Johnson Space Center's mission control building, they worked on a top-secret floor that had $85 million worth of modifications to guard against spies.

''It was a learning environment, and a way to assist NASA,'' said Col. Tom Hornung, a spokesman at Air Force Space Command at Peterson Air Force Base in Colorado. The long-range plan was for military flight controllers in Houston to bring their skills back to Colorado, where work started in 1983 on a $500 million shuttle control center at the edge of the Rocky Mountains. It was to handle 12 to 14 military shuttle missions a year; the Houston complex had the equipment for only 6 to 8 a year. Surrounded by armed guards and barbed wire, the Colorado shuttle base was to be filled with the most up-to-date equipment and computers, linked to orbiting spaceships by antennas. But it was never finished.

''By 1987, it was all gone,'' said William J. Baugh, director of public affairs for the Air Force Second Space Wing at Falcon Air Force Base in Colorado. ''By that time, Challenger had its problem, and we decided to get out of the shuttle business.'' Today, Mr. Baugh added, the building meant to house the shuttle complex is part of the Pentagon's Strategic Defense Initiative to build a shield against nuclear missiles. A Never-Used Spaceport

By far the largest of the military's shuttle installations is a never-used $3.3 billion spaceport at Vandenberg Air Force Base in California, 130 miles north of Los Angeles. Its huge concrete and steel structures dominate a brushy, windswept mountainside high above the Pacific Ocean. Its launching pad was to lift shuttles carrying spy satellites into polar orbits, from which they could view most of the earth's surface. By contrast, the Kennedy Space Center in Florida puts shuttles into equatorial orbits with more limited viewing fields.

Work on the California spaceport began in 1979 and reached its peak in 1984 and 1985, with 4,200 workers, said Sgt. Virgil Short, a Vandenberg spokesman. It includes a launching pad, an orbiter maintenance building, a control center, astronaut quarters, a shuttle management center, warehouses, an engine shop, a power plant, a harbor for the delivery of external fuel tanks for the shuttle and a ship to pick up booster rockets jettisoned into the sea by shuttles thundering aloft.

After the Challenger accident grounded the shuttle fleet, the Air Force decided to mothball the California space complex. Sergeant Short said there is talk of turning it into a launching pad for the Air Force Titan 4, the first rocket big enough to rival the space shuttle in cargo capacity. The rocket made its maiden flight in June from a Florida launching pad; the Air Force now expects the program to cost $12.2 billion through 1995. The final part of the Air Force shuttle establishment is at the Kennedy Space Center in Florida, where Firing Room 4 is dedicated to military shuttle missions, having been made spy-proof. NASA is now considering what to do with the room when the military pulls out.

Mr. Pike of the Federation of American Scientists said the military paid relatively little for its part in the civilian space agency's $35 billion shuttle program, considering that the Defense Department received the right to control up to one-third of all shuttle flights. For the military, Mr. Pike said, ''it's been easy come, easy go.'