813 AIRCRAFT CONTROL AND WARNING SQUADRON

MISSION

LINEAGE
813 Aircraft Control and Warning Squadron constituted
Activated, 18 Dec 1956
Discontinued and inactivated, 1 Aug 1963

STATIONS
Oklahoma City AFS, OK
Rockport AFS, TX, 1 Jul 1958

ASSIGNMENTS
33 Air Division, 1 Jan 1958
Oklahoma City Air Defense Sector, 1 Jan 1960
4752 Air Defense Wing, 1 Sep 1961
Oklahoma City Air Defense Sector, 25 Jul 1963 - 1 Aug 1963

COMMANDERS

HONORS
Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

MOTTO

NICKNAME

OPERATIONS

813 Rockport AFS, TX FPS-3; FPS-6 1959 30-Jun-63 Site shared with FAA. Located adjacent to the Aransas County Airport.

TEXAS TM-191 – Rockport; This station became operational in 1959 with AN/FPS-3 and AN/FPS-6 radars. This station, operated by the 813th AC&W Squadron, also performed air traffic control duties for the FAA. Rockport was ordered closed by the Air Force in March 1963.

This station became operational in 1959 with an AN/FPS-3 search radar and an AN/FPS-6 height-finder radar. This station, operated by the 813th AC&W Squadron, also performed air-traffic-control duties for the FAA. Rockport was ordered closed by the Air Force in March 1963; operations ceased on 1 August 1963.

By resolution dated April 22, 1943 between the Civil Aeronautics Administration (CAA) and Aransas County, through the Commissioners' court, it was agreed to build an airport for military purpose and public use.

A total of 700 acres of land had been purchased for the airport and on October 21, 1943 the 700 acres was leased to the U.S. Navy for the duration of the national emergency, plus 6 months, for $1 per year.

The exclusive use of the airport facilities was retained by the Navy until March 9, 1948 when it reverted to the county.

On December 5, 1955, the County leased the north 214.8 acres to the U.S. Air Force. The 813th Aircraft Control and Warning Squadron dedicated this part of the airport, officially known as the Rockport Air Force Station, on May 16, 1959. The facility was especially active during the Cuban Missile Crisis, because Russian supplied missiles were capable of reaching this coast.

The 813th Aircraft Control and Warning Squadron was constituted on September 27, 1955, and activated on December 18, 1956, at Oklahoma City Air Force Station, with assignment to the 33rd Air Division of Air Defense Command (ADC). It moved to Rockport Air Force Station, Texas, on February 4, 1958, and remained at Rockport, Texas, although it was assigned to the Oklahoma City Air Defense Sector of Air Defense Command on January 1, 1960, the 4752nd Air Defense Wing of Air Defense Command on September 1, 1961, and on June 25, 1963, to the Oklahoma City Air Defense Sector. The 813th Aircraft Control and Warning Squadron was discontinued and

deactivated at Rockport on August 1, 1963. The facility was especially active during the Cuban Missile Crisis, when Russian- supplied missiles were capable of reaching the American Gulf coast.

Rockport Air Force Station. Photo of cross street, looking south, circa 1962. (Photo courtesy Mike Paul)

The mission of the unit was to use the radar to monitor all the air traffic along the coast and detect any unidentified or unauthorized aircraft (potentially enemy), and if fighter aircraft were sent up to investigate, to direct them to the target. The station radar unit rotated 360 degrees to cover a radius of about 150 miles, and Rockport's radar field overlapped those of Eagle Pass and Ellington to cover the entire area.

The Rockport Air Force Station was one radar site within the larger system that covered the coast all along the Gulf of Mexico then up the Rio Grande River to Del Rio and west to Ozona, Texas. There were also manned sites at Laughlin AFB in Del Rio, Laredo AFB in Laredo, Palacios, and Ellington AFB in Houston, plus two remotely operated sites in Riviera and Del Meda.

It was a secure facility and the main buildings were surrounded by a high fence. There was an armed guard at the front gate, but, at the other restricted area, the interior gates had a black box on the gate with a hole big enough to put in a hand. To release the lock, the person put his hand in, and inside there was a dial. Presumably, anyone with clearance knew the number to dial, and could do so without being able to see the dial hidden inside the box. That accomplished, the person wanting entry was faced with yet another box, this one with a series of toggle switches inside. Success with the toggle switches allowed entry to that restricted area.

The Air Station was a totally self-sufficient unit with its own radar technicians (who kept the radar unit in working order), communications technicians, and an office responsible for building and grounds maintenance. After the station was decommissioned in the spring or summer of 1963,

most of the men left. Captain Dennis assumed command during the deactivation period. He remembered: "I stayed with a small group of men for about another year to close the base down, then the Air Force came and removed the equipment. I put the padlock on the gate and walked away."

The operations area with the radar equipment was secured and fenced with an armed guard at the gate. We had an FPS 3-A search radar and had an FP6 height finder installed.

In those days, the computer that ran the equipment and tracking programs was room size, and generated a lot of heat so it had its own building. At first, the radar technicians had to take care of the computer and learn how to operate and maintain it, but later, the Central Air Defense Force (CADF) set up a training course at Rockport and trained all the computer technicians for the entire central United States here at Rockport. The classes ran about 6 hours a day, and the course lasted about two weeks. Rockport Air Station was the first and only training site for that course in the entire CADF. The courses continued for almost two years.

Lieutenant (later Captain) Charles R. Dennis served at the station for the entire time that it was open and remained for about one year after it was decommissioned to close the station down. In a phone interview, Dennis explained the radar system: The radar signals radiated in a straight line out from the base, so near the unit we had coverage from ground level, but as the earth curved away from us, out at 150 miles, we achieved coverage at a higher altitude.

Aircraft - like crop dusters - were too small and flew too low to become blips on our radar screen. These stations, past and present, were and are part of the Air Defense Command (ADC) network. Information regarding detected aircraft went into the network, and the decision whether to send up fighters came from within the ADC network. Now and again we did notify our command that we had an unidentified aircraft, and they would scramble the jets to intercept the aircraft.

The jets would fly alongside the aircraft and either escort the plane to the ground, or identify it and let it go. Jet fighter pilots from Beeville NAS and Kingsville NAS needed to practice their flying skills, so they would run intercepts against each other, and we got to direct them on our radar. On a typical day, a Duty Director, whose primary duty was to direct aircraft in the area, would be in the Operations room along with several other men, monitoring the blips on the radar in shifts, 24 hours a day, 365 days a year.

We routinely encountered unidentified aircraft, but mostly it was aircraft that weren't properly identifying themselves. If unauthorized or unidentified aircraft were detected, after some attempts were made to get the aircraft to identify themselves, the duty director would notify the Air Defense Command and fighter jets would be deployed from Beeville or Kingsville Naval Air Stations, Kelly Air Force Base in San Antonio, or Ellington Air Force Base near Houston.

The radar operations building was a large concrete block building on the southeast quadrant of the station, to the left of the main entry road. The area was fenced and secured. When you walked into the building, the first room on the right was the break room, and the second was the

commanding officer's office, in his case, Maj. Tedder. The first room on the left was the radar maintenance room, and the second room on the left was the top secret cryptography room. There was an armed guard just inside the door to the cryptography, or code room. The sign on the locked door of the crypto room said, "What you see here, and hear here, you leave here." Past these rooms and up a short flight of stairs was the scope room. Four radar scopes were on the floor.

The first scope was the main scope and the one where I worked most often. To the right were the large plotting board and the teller's table. To the left, up a level, were about three more scopes, where officers with cryptography clearance sat, monitoring the flow of aircraft and making decisions about when to call headquarters about suspected unfriendly aircraft. Up one more level were two more back-up scopes where officers from the Inspector General's office sat when they came to observe our work.

The radar room had altogether eight or ten scopes mounted in rows on four large steps. A clear plexiglass plotting board about 25 feet wide and 15 feet tall, mounted in a steel frame hung from the ceiling across the room from the rows of scopes. The board had an outline map of the southern United States on it, all along the Gulf and east to Alabama. Beside it on one end was a smaller clear weather board, with the location of the Gulf Stream and other weather information listed for the whole country.

It was especially important to know where the powerful Gulf Stream was, because a pilot could utilize the stream's 150 mile per hour winds to boost the speed and reduce the flight time of a plane that might already be traveling at 800 or 900 miles an hour. On the other end of the big board was another smaller board with classified information and station call signs on it. All the other radar sites and command centers were in touch with on a daily basis. Each was identified by a specific call sign. The call signs were changed occasionally and all the current call signs were posted on this end board. For instance, the call sign for the Rockport Air Force Station at one time was "Killdeer."

The scope men were on the bottom row of raised platforms, sitting at scopes in front of the board. The tellers sat down below at a table on the floor of the central aisle. All the electrical wiring was underneath the raised rows. The plotter walked back and forth on a gangway with rails behind the board. The plotters wrote information on the board from behind, so they wrote everything backwards in grease pencil, and the tellers on the other side then read the information written on the board and relayed the information to headquarters by radio or military secure land line communication.

The entire room was dark, with the light from the scopes glowing green, and the clear plotting board lighted on the far side. The work was so intense that the usual limit for a scope man was one hour, then he had to take a break. Going to sleep while on the scope was the same thing as going to sleep while on guard duty. It was not taken lightly if done.

As the radar swept in a circle, planes would appear on the screens as small white lights, or blips,

which would slowly move up, down, or across the screen, as the airplanes continued to their destinations. When an airplane first appeared on the scope, the plotter indicated the initial plotting (IP) by making a corresponding dot with a circle around it on the plotting board in white grease pencil, and then every two minutes thereafter added an arrow to indicate the flight path, direction and speed of the aircraft, based on information called out by the man looking at the scope.

The man on the scope and the plotter were in constant communication through their headsets. As the plane's flight path proceeded across the board, the plotter would add another arrow in front of the flight path, and erase the last arrow, so the line of flight was always current and obvious. On an average 4 PM to midnight shift, there might be thirty aircraft being plotted at any one time. On a busy day shift, with all the commercial, Navy, Air Force, and private planes flying around, there might be fifty to one hundred planes being plotted by one or two scope men and one or two plotters.

Most of the air traffic was routine commercial flights on regular daily routes, or private planes who had filed a flight plan and identified themselves. If the identity of a plane was unknown, however, the plotter would mark the route with a red grease pencil. If the route remained in red on the board for longer than a few minutes, the command center would initiate a "scramble order" for fighter jets to intercept and identify the aircraft. This did occur occasionally, and our area usually scrambled jets from Ellington Air Force Base near Houston. When the identity of an "unknown" plane was established as "known", the markings were changed from red to green. Airman Ford continued: We also tracked the U-2s; the notorious high altitude "spy planes" that flew unseen over Russia and China, which were based at Del Rio, Texas.

The ground team at Rockport, along with our San Antonio site, would transmit coded messages on the radio for a "specific trick," or maneuver, and the U-2 pilots would identify themselves by doing the maneuver. When the planes responded appropriately, then we knew the planes and pilots, represented to us only by a very high moving blip on the radar screen, were who they were supposed to be. The U-2s would then head outbound over the Gulf of Mexico to take high altitude photos of the Russian missile sites the Cuban government claimed were not there. The radar operators used the high altitude radar scope, the "Tipsy YB" (FPS6) height finder to find them in the sky, by turning it directly at the U-2 to track it. The next day, the blip would reappear on the screen out over the Gulf, get identified as an unknown plane by Rockport, Colorado Springs headquarters would be instantly notified, and they knew exactly who it was.

They would then classify the plane as "friendly" and tell Rockport to send it on home to Del Rio. I know one time President Kennedy requested a pair of U2's to take lower flight paths for clearer photos, and one did not return the next day. It was taken down by a SAM (surface to air missile) over Cuba. This was during the Cuban Missile Crisis, and shortly before President Kennedy announced we had the proof we needed that the Russian missile bases did, in fact, exist on Cuba.

The U-2s had already been taking pictures for about nine months, I believe, so this was even before his announcement to the world and the initiation of the United States' naval blockade

around Cuba.

The second factor that made our presence on the Gulf coast important was that we monitored training flights for the Navy and Air Force. We could watch on our screen and help them practice battle maneuvers or intercept missions with more precision. We helped them when they held mock air battles against each other. Ellington Air Force base had quite a lot of restricted air space out over the Gulf to practice aerial procedures in, and we kept track of that for them. We watched their backs.

The third way we contributed was that we covered the practice bombing runs the B-47's made over Matagorda Island from bases in Ft. Worth, Texas, Lake Charles, Louisiana, and a few other U.S. bases. Whenever they came down, they would do their bombing runs over Matagorda, and then fly back to their bases, maybe over Mobile Bay, farther inland, or along the Gulf coast. We watched them and kept track of them so we would know where they were, in case one ever went down or needed assistance, and we could relay that information to their home base if necessary. It was said that because of the high rate of speed and altitude at which bombers, especially Russian bombers, flew, we radar operators had only about 27 seconds to identify them before they could have dropped a bomb on top of us and flown away. We were known as the "27 Second Men."

Once, an American Airlines flight which flew over the Gulf every night on its route from New York to Mexico City at a certain time was plotted as usual as a white blip on the Rockport FPS 20 surveillance radar. Our scopes were on all the time, twenty four hours a day, 365 days a year, and plotted plane positions every two minutes. The scope operators and plotters were talking to each other all the time on a busy night, and the teller was relaying all the information to headquarters at Colorado Springs. One night, when I was on the scope, and my friend Airman Coy Kirkpatrickxvi was acting as plotter on the board, I noticed the American Airline plane had moved very little, so I reported this to the duty officer.

He said I must be mistaken, and had been giving the coordinates incorrectly. Coy, expecting to receive new positions every two minutes, couldn't do anything but stand at he board with his grease pencil raised, waiting to plot the next position of a plane which didn't seem to be moving.xv" This was a regular commercial flight that we were all used to, and I knew I hadn't made a mistake. As I watched a few more sweeps of the radar, I noticed the plane had actually turned 90 degrees, and was now heading outbound over the ocean, away from the Texas coast. I also reported this to the duty officer. He took a look himself, and suddenly it became very exciting in the operations center, and Colorado Springs was asking a lot of questions! The plane had, in fact, changed course and was headed to Cuba. We had just witnessed the first "air jacking" of a commercial flight which was then forced to land in Cuba. This was in late 1961 or early 1962. xvm

There were radar crews made up of officers, non-commissioned officers and airmen which were generally comprised of plotters (the men who wrote the information, such as coordinates on the board backwards); tellers, who passed the information from the board to Colorado Springs, a recorder who kept a written record of all information sent by the teller, and the scope men, who

gave the information to the plotters. The crew members rotated through these four positions during a duty shift. The scope men were so focused on what they were doing - trying to continually keep up with the many aircraft in the airspace overhead in the radar's large tracking area - that they needed a break every hour. If, for some reason they didn't take a break, focusing their minds and eyes so intently on the continuous motion of the radar sweep, combined with the dark room and glowing green screen, would make them very disoriented. When they got up, they would have difficulty standing upright or walking straight.

Dallas Ford recalled such an incident:
I remember what happened to me one night when we had the worst practice alert Ixix had ever dealt with. The screen was lit up with about a hundred aircraft, and I was stuck at the scope for more that two hours. I was a little dizzy when I finally got up. I couldn't stand up very well, and another airman had to help me to the break room. It was like being on board a ship for a long time, then trying to get your "land legs" back, only worse. It took a while for me to get over the experience." As it turned out, it was an intense practice session for us.

There were two colonels sitting in the back of the radar room, watching and listening to how we handled this exercise and the pressure. Later, one of them asked me about a term I used, "bump it." I explained that with all the air traffic that I was monitoring, I didn't have time to keep calling out coordinates and air speeds for the planes that were on a steady track, so I just told Coy Kirkpatrick, my plotter, to "bump it," or move it a little further along the same trajectory. It saved time, and the colonel later took that procedure and the term "bump it" to other sites. I was told these particular colonels were from the Inspector General's office.

The best men in any positions were put on a "Tiger Team." A good radar operator with a sensitive touch on the adjustment knobs of the scope could bounce signals off clouds when the weather was right, and extend the range of the radar a lot further than the 300 miles it was reported to reach. The Tiger Teams were called upon in emergencies and alerts, and were subject to being called back to the station at any time. They couldn't ever go further than 175 miles away from the air station unless they got special permission from the Commanding Officer of the station. Two other conditions were that they stayed near a phone always, and that there was a back-up man available to cover their shift. For this special duty, the men were paid an extra $40 a month proficiency pay. Airman Ford and his buddy, Airman Coy Kirkpatrick, were Tiger Team members for many months.

The United States had an agreement with Mexico to have legal use of a flight area across the border from Del Rio in Mexico, where the U-2 spy planes took off and landed. Radar installations like Rockport could "talk" to the U-2pilots cryptographically, that is, in code, but the pilots would never answer so no one could get a "fix" on their position. The operators in Rockport could give directions, and note the plane's position in their air space, but never knew when they were coming, where they came from, except Del Rio, or where they were going, except Cuba. The U-2s had a small T-33 engine, and were all wings, made as light as possible. They flew relatively slowly, but at an extremely high altitude. There was a blip on the surveillance screen for a small period of time while they spiraled up to reach altitude, and then the blip disappeared. The U-2s could fly

easily to at least 70,000 feet, well above the range of any surveillance radar then in existence. Only the height finder could track them by being pointed up and directly at them, and even then, the radar men couldn't find them all of the time. It was necessary to keep the radar operators alert at all times. Dallas Ford explained: None of the radar operators ever really knew, when there was an unknown plane in the airspace, if it was "ours" or "theirs," and they were tested frequently. It was the same for the jet fighter pilots at Ellington Air Force Base. If the "unknown" plane remained for long, a 'scramble order" was issued. The pilots on stand-by flight duty grabbed their helmets and headed for their jets. They all responded to each situation as if it were a potential enemy.

They did not cancel the intercept mission until headquarters in Colorado Springs said the plane was friendly, or the pilots actually intercepted the unknown plane, flew alongside, and identified the plane by sight, which also occurred occasionally. One identification technique caused some problems. It is very difficult to fly a jet while trying to look out of the cockpit sideways and peer through the darkness to read the tail numbers on a plane, so the intercept pilots would come alongside an unidentified plane and turn on a bright light. It was startling, to say the least, to passengers on a quiet commercial flight at 40,000 feet, to suddenly be lit up by a beam out of the darkness. I was told the practice caused a few heart attacks and had to be stopped.

Although we were providing a service essential to the defense of the country, during this period in the Air Force the radar operator career field was top-heavy in rank. It was estimated that for every sergeant, there was only about one enlisted man. As a result, the Air Force froze promotions for radar operators. So, men who came in as A2C or A1 Cs remained at that rank as long as they were at Rockport.

Air Force Lineage and Honors
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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.
History Of The Rockport Air Force Station, 1958-1963. Kathryn Black Morrow. 6 Mar 2012.