



## Patrolling in Defense of the Panama Canal

What in the Hell Were We Doing Down There?

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**Written by:** William A. Rooney, Clifford Booth, Red Carmichael, Ira Cornett, Ira Matthews, Don Stumpf

**Editor's Introduction:** The format of MEMORIES issues has changed from time to time to accommodate the story being told. The format of this issue departs from all other issues in that it is without the usual documentation that has been the case previously. Fairly vigorous digging in sources has not turned up any such needed documentation, yet what we did and the patrols that were flown had an overall purpose not fully explained to everyone. The purpose of this issue of MEMORIES is to get what is known to be true (but not documentable up to now) down on paper before the memories fade. One of the rewards of publishing the story in this way will be that many people will write in to correct inaccuracies and to offer source material that can be used in a follow-up publication.

**Setting the Stage:** The "Army Air Forces History of WW II" records that in February, 1943, the Air War Plans Division informed Gen. Arnold "little probability that air force units as now constituted could defend vital targets against a determined carrier-based attack." Early in the war, Secretary Henry Stimson got the English scientist, and one of the inventors of radar, Watson Watt, to make an inspection of the Zone. He concluded that there were about six points in the Canal that, if successfully attacked, would close the Canal.

During 1942-43, the 40th Group was the bouncing ball of air unit games within the Sixth Air Force. Squadrons were transferred into and out of the Group with abandon. In August of 1942, the 74th Squadron was transferred out of the 40th and the 395th transferred in. And, in that month, the Hq. and Hq. Sqdn. of the 40th was disbanded and the 29th Squadron (then one of the 40th's complement of four squadrons) exchanged personnel, station and designation with the 25th. (Decoded from this government bafflegaff, this meant the 25th was transferred into the 40th and the 29th transferred out. Everything remained the same except the numerical designations of the squadrons was reversed.) In another case, in September of 1942 the 40th headquarters changed stations from Howard Field to Albrook Field in the CZ. In June of 1943, the headquarters was moved back to Howard from Albrook.

By February of 1943, the squadrons were in their operating locations: 25th at Salinas, Ecuador; the 44th at Guatemala City; the 45th on the Galapagos Islands and the 395th first at Rio Hato and later at David, Panama. The other heavy bombardment squadrons were units of the 6th Bomb Group. One of those squadrons--at different times numbered the 29th and 74th--was stationed in Guatemala City. While not a part of the 40th, Col. Cornett was the senior officer on the post and gave directions as to the operations of the squadron. Still another squadron--not a part of the 40th--was positioned at Talara, Peru.

Wherever it might be situated, shore-based radar could never be sufficient to pick up potential Jap fleet carriers and alert the Zone in enough time that defenses could pick up the incoming enemy and defend against attack. Accordingly, air patrols would have to be flown sufficient distance from the Zone that incoming surface craft could be picked up, identified as friend or foe and, if the latter, put Zone defense systems on alert.

Fast forward here for a moment. On August 15, 1945, on the front page of the *Philadelphia Inquirer* announcing the Jap surrender, there was an article sharing the front page with the peace announcement. The headline of that story read: "Veil Lifted From Radar: It Turned the Tide of War." The story read: "Washington, Aug. 14 (U.P.). The Army and Navy tonight unfolded the long-secret story of radar, second only to the atomic bomb as the war's most revolutionary scientific development, the margin of victory in the Allies' darkest hours and a springboard to the perfection of television and other far-reaching changes in post-war living." ... Hold this thought.

One of the hinges on which the defense of the Canal hung was airborne radar used in the patrols flown from continental bases to the Rock. We were dealing with high-security equipment, but because it was so much a part of our lives, little thought was given to its importance.

**Patrol Scheme Established:** No information is at hand which details how the State Department and the Caribbean Defense Command worked out arrangements with some very German-leaning governments to get wartime bases located in Guatemala, Ecuador (including the Galapagos Islands, an Ecuadorian possession), and Peru. Nevertheless, this got done, and bases were constructed at Salinas, Ecuador; Talara, Peru; Baltra Island in the Galapagos. "La Aurora" airport at Guatemala was expanded to accommodate the military aircraft and to handle the patrol traffic that used the airport. Maintenance facilities would, in any other time, be regarded as primitive. San Jose, on the Guatemala Pacific coast, was an emergency field.

A scheme of patrols was worked out involving some assumptions and the use of four-engine, ASV radar-equipped aircraft. First was a hypothetical assumption that all water in the Pacific Ocean was moving toward the Canal. It was doing so at 27 knots, the maximum speed at which any enemy carrier could travel for 24 hours. Airborne radar could fly over the water, sweeping it for any surface vessels for a distance of about 25 miles on either side of the plane when flying at an altitude of 6,000 feet. Accordingly, each morning patrol planes would take off from Guatemala and the Rock. They would navigate out to designated positions whereupon they would file direct line patrols to their destinations. Parallel courses were flown at distances from each plane that would permit radar overlap to insure all the water below was swept.

Patrol patterns were changed at irregular intervals to prevent enemy penetration of the patrol scheme. (It is believed that the entire concept of these patrols was thought up by two enlisted men in the operations office of the Sixth Bomber Command.)

Involved in this was some heroic planning that, as with all the rest, has received little attention. Every Allied or Allied-aligned ship that traveled the Pacific water was issued "Signals of the Day" information. Every day had a different set of code signals that could be used to identify the ship--signal pennants, colored flares, or signal-light codes. Every plane on patrol had to know the signals of the day and was required to get this information from any ship passing through the patrol area. All patrol planes were armed and carried bombs. (By the summer of 1943, planes were also armed with depth charges--an indication that authorities were sensitive to the possibility of submarine attack.) If a merchant ship or any other vessel failed to display the right signal of the day, the patrol plane would circle the ship and make known the need to display signals. If any vessel failed or refused to flash the signals of the day or display signal pennants in the right order, an alert message went to the Zone. At the discretion of the Sixth Bomber Command, an alert could be called and, although it never happened, an attack could be made on the vessel in the water.

Bill McNair (deceased), Intelligence officer of the 45th when the squadron was stationed at David, conceived the idea of stringing identification flags from the flagpole adjacent to the operations building. Each day a message was spelled out with the flags, and crews were challenged to read it. It became a training game notwithstanding there were no prizes awarded.

The Galapagos-Guatemala patrols were 10- to 11-hour flights. The Talara-Salinas-Galapagos flights were round trippers with the planes being down only long enough for ground crews to service the planes and for crews to eat lunch. By the summer of 1943, only B-24s were used on the Guatemala Rock patrols. B-17s patrolled between Salinas and Talara and the Rock.

During this time, some interesting things took place with regard to the airborne radar equipment. Don Stumpf was radar officer of the 44th Squadron in Guatemala.

**Don Stumpf's Story:** The Army had two levels of maintenance for radar, field, and depot. At the squadron level we were allowed to replace fuses and tubes, nothing more. If there was a serious problem, the set had to go to the depot in the Zone. The set would be gone for five to six weeks. Meanwhile, we had to change sets from one plane to another, depending on which plane was flying.

The War Department had authorized a radar section but no way to order parts. So, I decided that when we lost a plane, there would be two radar sets on board, the one in use and a spare. Then I could write off the loss of the set with the plane. This way we had a set we could use for spare parts, even though we were not supposed to be repairing sets. (This was a court-martial offense.)

One day, two enlisted men in the radar section and I were working on a set. One of the men said that there was a lot of wasted energy at the top of the radar screen. We tested one of the sets and found by aiming it at the radar homing beacon at the end of the runway, we could get some interesting results. The beacon transmitter sent out a signal to the radar set and then back again. By lengthening the time of the cycle, we could get more distance so we started to experiment. The circuit was called a resistor-condenser circuit. We were able to increase the beacon range from 100 to 180 miles. So we started to modify sets.

(Ira Cornett inserts some thoughts here.) Stumpf came to me and said, with some work he could improve the range of the radar sets, if given permission. We had been instructed not to tamper with the units in any way, but I told Stumpf, "If you can do it so we don't get caught, go ahead."

One of the sets got to Panama, how I don't know. (Stumpf continues.)

I was working on a set on a plane when someone called for me. I went to the hatch of the plane and looked out. All kinds of rank from a general down were out there. The general asked if I was the one who modified radar sets. I admitted that I was. He said that the Army needed more people like me, congratulated me, and then left. Needless to say, I was a little bit frightened because I could see a court martial coming up.

Later I found out that the set that got to Panama was on the general's plane. It seemed that the general had got caught in a severe thunderstorm and was lost. The radar operator finally called out that Rio Hato was 150 miles, 10 degrees right, or something like that. The general asked the operator about the 150-mile range when the set was designed for only 100 miles. The operator told him that the radar section in Guatemala was modifying the sets for the extra distance--hence my visit from the general. Later I got a call from Col. Cornett, and he presented me with the Legion of Merit, and the two enlisted men got lesser medals--why the difference, I don't know.

The War Department authorized a radar section, but forgot to provide for promotions and equipment. To get by, I was able to borrow some instruments from the radio section. For tools, whenever an aircraft mechanic left a hammer, pair of pliers, or whatever lying around, they disappeared. We survived.

For promotions, I went to Col. Cornett. He never had one bit of trouble with the guys from the radar section, but the radio section was always demoting someone. Since all of my radar men were previously radio men, I asked the colonel if they could be promoted on their old MOS. From then on, when a radio man got "busted," the radar section got a stripe. It helped the morale of the radar section but didn't do much for the radio section.

**Ira Matthews** (deceased) **describes the Rock airstrip and aircraft maintenance routines:** The airfield on Baltra (still in use by tourist flights to this day) was called by some "a stone age" strip. The runway was a very thin macadam surface poured over a base of crushed sea shells dredged up from the ocean and spread over the jumbled volcanic rock surface. Giant boulders were piled at one end of the runway, the product of the leveling for runway construction. The runway was only 5,000 feet in length and 150 feet in width. There was no parallel taxiway, and the only ramp would barely take two bombers and a small flight of P-40s stationed on the island to protect the strip. This forced the parking of some 20 planes, at times, at a 45-degree angle along the runway edge. These parked planes critically reduced the width of the runway surface for landings and takeoffs. In addition, the gusty SE trade winds of 20-30 mph contributed to the hazard. Every takeoff and landing was a heart-stopping event for every flight crew.

Mechanics worked their magic nightly, refueling and repairing the planes for the patrols which usually departed at first light. Everything was in short supply on the Rock: fuel trucks, oil bowsers, tow bars, towing tugs, air compressors, work stands, tools, spare parts, engines, props, and all the rest. The ground crews did their work in blackout conditions. Most work was carried on with flashlights and a few drop cords with dim blue bulbs. Despite these technical handicaps, plus being hungry, thirsty, dusty, and fatigued most of the time, these hardy men normally had their planes ready each morning. In nearly six months on the Rock, there were no planes lost to maintenance defects. These ground crews were magicians in every sense of the word.

**But there was more to the misery:** While barracks and other buildings were being built, patrols were flown. In that time, life was lived in tents and out of mess kits. Until Col. Mooney was assigned to the island as base commander, the roads were nothing but dust-creating ruts. Everything on the island was coated with a thin cloud of red volcanic dust borne on that 20-30 mph wind Ira Matthews mentions as a flight hazard. Mooney is credited with ordering oil to be spread on the roads with the result that the dusting of everything was greatly reduced. By the time the 45th came to the island in February, 1943, barracks, a mess hall, salt water showers, a movie theater, and other amenities were in place.

Combat crews had it difficult in different ways. Crews from Guatemala were given TDY on the Rock. Red Carmichael remembers such duty and also remembers that it was commonplace for crews to fly more than 60 hours a week on patrols. The radar operator on each plane suffered hours of heat and boredom "under the hood," a blackout curtain intended to shelter the radar screen from outside light. So tedious was this duty that crew members shared the chore, relieving the radar operator at intervals during the flight. Before squadrons were brought up to something near authorized strength, pilots got very little relief. In addition, due to lack of navigator personnel early on, pilots flew the patrols doing their own navigation by DR and radio. Navigators flew heavy schedules.

**A somewhat abrupt end to it all:** While the Group was industriously carrying out the patrols with the Galapagos as the axis, on June 4, 1943, everything changed. That was the date of the Battle of Midway in which the Japanese lost four aircraft carriers and withdrew from the eastern Pacific in defeat. When the military high command was able to assess the effect of the Japanese loss, priorities for the Canal dropped abruptly from third to something like ninth. The need for patrols on the Pacific side required to defend the Zone were reduced, and the 40th was freed up to return to the States. Well before Midway, other forces had been at play. Apparently to get the needed strength to conduct the necessary patrols, it was proposed that the Zone be used as a training location for combat units. They could be sent to Panama, get some operational training and then be transferred out to other theaters. Individual squadrons had returned to the States before the 40th was rotated back. Many individual officers and enlisted men had also received orders returning them to the States. The 40th was the first group-size unit to be rotated, however.

**But even the denouement was interesting:** After the departure of the 40th, the Navy took over patrols flying from Salinas, Ecuador. What happened to the Talara, Peru and Guatemala City bases is not known. On February 4, 1944, the 29th Squadron was transferred to the Rock. It flew daily patrol sweeps out of the Rock until April 3, 1944. These patrols originated and terminated at the Rock. The April, 1944, move took the Squadron to Howard Field. Then in April, 1945, the Squadron was again returned to the Rock. The Squadron's history records, "Squadron morale was poor after the move due, primarily, because approximately 50% of the Squadron had previously served eleven months on the Galapagos Island." The Squadron remained on the Galapagos until October, 1945, when it moved to Rio Hato, Panama, and was inactivated.

**It ain't over until it's over:** Sometime before Pearl Harbor, the Japanese had conceived the idea of underwater aircraft carriers. These submarines would be larger than any heretofore conceived by any combatant. They would be specifically designed for the transportation and launching of attack aircraft. The submarines would be capable of missions the full width of the Pacific. Upon reaching the target area, the planes would be launched, make their target runs, and return to the submarine. The crews would be taken aboard the submarine and the planes scuttled. The idea would be to create confusion since there would be no trace of the attacking aircraft or their origins. One conception of their use envisioned them retreating to a remote area where refueling ships would be positioned and where they would take on replacement aircraft. The aircraft was designated the Seiran (Mountain Haze) by the Japs. A full-scale model was constructed in 1942. More were ordered, and seven of the aircraft were delivered by December 7, 1944. An earthquake and fire bombing raids on the Nagoya area resulted in such damage to the aircraft plant that the plan to build additional aircraft was abandoned.

Four submarine aircraft carriers were planned. Three were built, but one was converted to a tanker. The two carrier subs-I-400 and I-401-made test launches of the three aircraft each sub could hold. The three could be launched in about 14-plus minutes if floats were not attacked. The primary target for the planes and the subs was the Gaton Lock Gates of the Canal. The intention was to slow or halt the flow of men and material from the European Theater to the Pacific. The subs were to take the same route as the Pearl Harbor-attacking Jap navy had taken. They would then head south to the Colombian coast. They would sail along the Colombian coastline in a northerly direction where they would launch their aircraft. In preparation for the mission, the planes were practicing attacks at home flying against large-scale models of the Gaton Locks.

Realizing the near futility of such a mission, at the last minute, the submarines were ordered instead to attack the U.S. Navy installation at Ulithi. While at sea on August 6, one of the subs sustained an electrical fire which prevented it from submerging until repaired. Two days before they were to be launched, the submarines received word of the surrender. On the morning of August 16, the submarines were told of the surrender and ordered back to Japan. En route back to Japan, the submarines destroyed the aircraft and on August 27 and 29, the subs surrendered.

Only one model of the Seiran aircraft is still in existence. It is in the hands of the National Air & Space Museum and is in storage awaiting restoration at the Museum's Garber Restoration Center. The two aircraft-carrying subs were taken over by the U.S. Navy. Their ultimate disposition remains something of a mystery. The commander of sub I-400 committed suicide and was dropped overboard. Some think he slipped overboard while still alive and escaped when the sub was close to shore. Some reports have I-400 being scuttled off Singapore. Credible authorities believe otherwise. Some sources say that it was brought back to Pearl for evaluation and then scuttled somewhere off the Hawaiian Islands. This, too, is not believed by knowledgeable authorities. A likely story of the subs' demise is that I-400 was brought back to California with a prize crew of U.S. Navy men. After analysis, evaluation and testing the sub was scuttled off the California coast.

Thus ends the story of the defense of the Pacific side of the Zone and the 40th Group's part therein.

**Editor's Note:** William Conaway and Charles Meketa (29th Squadron) who served in other units in the Zone contributed to this story. Others who read this story and would like to add to or correct it, are invited to write the editor: William A. Rooney, 40th Bomb Group, 517½ Ridge Road, Wilmette, IL 60091. Telephone: (847) 251-1429.



**40th Bomb Group Association**  
2510 Tulane Ave., Alamogordo, NM 88310

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