

During the Cold War, both NATO and Warsaw Pact forces conducted a lot of intelligence gathering against the other. Some of the efforts were spy missions in the traditional sense, in other words, what is called Human Intelligence ([HUMINT](#)), or more commonly, espionage. Other efforts were intended to gather as much information as possible about the adversary's military capabilities. Those efforts were called Communications Intelligence (COMINT), or more generally, Signals Intelligence ([SIGINT](#)). Electronics Intelligence ([ELINT](#)) is a subset of SIGINT, as is COMINT.

I was involved in supporting US ELINT efforts in the early 1960s. In those days a primary ELINT collector used by Strategic Air Command was [the RB-47](#).



Air Refueling

The crews that flew the RB-47 mainly flew along the periphery of Communist Bloc countries looking for signals that indicated the types of radars being employed, where the radars were located, improvements to existing equipment, and the introduction of new equipment. The tanker crew I was on supported a reconnaissance project operating out of Eielson Air Force Base, Alaska, in the summer of 1964. We flew every few days; that is, whenever the RB-47 crew had something they needed to check up on.



Some sorties were easy. We'd refuel the RB-47 over Alaska and set up a holding orbit in the vicinity of Nome, Alaska, and wait for radio calls from the RB-47. If necessary, we would echo whatever the transmissions the RB-47 crew made. Other sorties were much longer and ranged out in several directions. There was a sortie that took us out over the Aleutian Chain, clear out to Shemya and beyond. Several took us out past Point Barrow and over the Arctic Ocean. The farthest ranging sortie had us refueling the RB-47 somewhere north of the Severnaya Zemlya island group. Another took us over to an air refueling point north of the New Siberia Islands.



View from a KC-135 cockpit

The RB-47 came loaded for Bear, so to speak. There was a crew of six: pilot, copilot, navigator, and three electronic warfare officers (EWOs). For takeoff and landing the EWOs sat in slings in a walkway below the pilots. After the bird was safely airborne and climbing, the EWOs crawled back through a tunnel to what had been the bomb bay in a more conventional B-47. It was cramped quarters back there -- and noisy too, from what I've been told. They sat under the center wing fuel tanks, and their ejection seats when downward through a Fiberglass and honeycomb steel panel that covered the bottom of the belly bulge that was the EWO main office. Hanging from the right side of the fuselage, at least in the RB-47H, was a pod the crew called "the finder." It apparently had some kind of electronic sensors that detected and recorded signals without the

need for EWO intervention. In the tail was a pair of 20 mm cannon mounted in a radar directed turret. The copilot operated the turret if it became necessary to defend the aircraft. There were several episodes over the years where it became necessary to defend the aircraft.

Standard tactics for departure and enroute cruise had the RB-47 taking off first, followed by the supporting KC-135. That made sense. If the RB-47 aborted the takeoff there was no reason for the KC-135 being airborne. The KC-135 would follow the RB-47 out the departure route and, usually, overtake the recon bird shortly after level off. Once the flight was about ten miles off the Alaskan coast, the RB-47 crew would conduct a test fire of the tail guns. That process was done in radio silence; nearly all the mission was done in radio silence except for some course corrections and whatever position checks the RB-47 reported after it entered the "sensitive area." In any case, test firing the guns required the KC-135 to leave the trail position and fly off the right wing of the RB-47. Once the guns were seen to have fired, the KC-135 would drop back to trail position and follow the RB-47 on its outbound route. Being in trail was kind of spooky because those radar directed guns were always pointed right at us. When it came time to do air refueling, the guns would follow us as the RB-47 dropped back to get behind the tanker. They would stop tracking us only after the RB-47 had passed our wingtip. There might be just one air refueling or two, based on how far out we flew to the point where we parted company with the RB-47.

After we parted company with the RB-47 we usually just made a bee-line for Eielson AFB. Enroute back we listened for the RB-47 making reports via HF radio to ground stations in Alaska and elsewhere. If we did not hear the ground stations acknowledge the transmissions we would echo the recon crew report and wait for a ground station reply. Other times, when the path out to drop off point was rather close in to Alaska we would be required to establish an orbit and hold between two points for some time until the RB-47 had made the required reports. Shuttling between Nome and [Kotzebue](#) on the western coast of Alaska was fairly common.

Just as an aside, Sarah Palin is right: You can see Russia from your backdoor. Oh, wait. That was Tina Fey on Saturday Night Live.

Of course, we were not entirely alone out there over the Arctic pack ice. The [DEW Line radars](#) IFF. Of course, they knew our flight plan -- and we were cruising at 39,000 feet.



Soviet Yak-25

The recon crew told us that the Soviets were watching too. In fact, they would run intercepts on the RB-47s regularly. As a matter of practice, the RB-47s always flew in international airspace, but the Soviets wanted to keep an eye on who and what was trolling their border regions. The copilot on the RB-47 crew kept a black ring binder that was labeled "**The Bad Guys.**" It contained a sheaf of 8x10 glossy black and white images of the Soviet interceptors that had come up to eyeball the RB-47. The one image that sticks in my mind is that of a Yak-25 flying on the right wing of the RB-47; the Yak-25 GIB (Guy in Back) was holding up a large camera, taking a picture of the RB-47 just at the copilot was taking a picture of the Yak-25. We were told that intelligence analysts on both sides studied those images for changes in configuration and equipment so as to keep track of whatever changes were being fielded.

Since both sides always brought guns to a potential gunfight, there was a certain etiquette that was observed when an intercept took place. If the Soviet interceptor did not switch his intercept radar to the attack mode, the RB-47 copilot kept the tail guns pointed away from the Soviet interceptor. The better to avoid misunderstandings in what had to be a rather tense situation. Yet attacks did occur, not only against the RB-47s, but also other reconnaissance aircraft. The last known attack against an RB-47 came from North Korean MiG-17s in April 1965. The RB-47 took hits from the MiGs but survived and landed at Yokota Air Base, Japan. [You can read a summary of attacks against RB-47s here.](#)

The RB-47 program was slowly phased out with the introduction of the RC-135 series of aircraft. The last time I recall seeing an RB-47 was the summer of 1966. We deployed to Southeast Asia, mainly supporting the B-52 Arclight mission and the various fighter missions against North Vietnam. I saw an RB-47 parked on the ramp at Clark Air Base, Philippines on one of our stops there. Later, we were holding in an air refueling orbit near Danang, when Panama Control, the GCI (Ground Control Intercept) site at Danang started calling an aircraft on UHF Guard channel. They obviously deemed the aircraft as an unknown because with every radio challenge they included its TACAN range and bearing from Danang. I started plotting the ranges and bearings; the positions were a nice neat line tracking westward, about 10 nautical miles off the southern coast of China's Hainan Island. After several radio challenges by Panama Control, the RB-47 broke radio silence and told Panama to shut up and that they were supposed to be where they were.

By 1966 most of the RB-47s were retired as the RC-135s took over more and more of the SAC reconnaissance load. The 82nd SRS was located at Kadena Air Base, Japan; another squadron flew out of Eielson Air Force Base, Alaska. There were [RC-135s at Shemya Air Force Base, Alaska too.](#) There were RC-135s flying out of the United Kingdom, Greece, and probably places I never heard of. I recall seeing a couple of RC-135s landing at Hickam Air Force Base, Hawaii, the same day a group of [French Mirage-4 bombers](#) and their supporting [KC-135FRs](#) departed Hickam on their way to French nuclear tests in [French Polynesia.](#)

The RC-135 continues to fly today in always newer configurations and out of more places I probably never heard of. In fact, the [RAF is now in the process of acquiring and operating RC-135s.](#)

The testing continues unabated. For their part, after a twenty year pause the Russians are again flying their Bear reconnaissance aircraft along US borders, at least.