The Forgotten Years - Part II

By Mel Eisaman and Ron Smith

As the Cold War dragged on, and the concept of "Massive Retaliation" came to be widely accepted, many Air Force tactical units in PACAF and Europe had been assigned nuclear missions. In Europe, even tactical reconnaissance units stood nuclear alert. Following the trend, the 3rd Bomb Wing had evolved into a nuclear force. In the late 50's and early 60's everything the Wing did took place in the context of a general war.

A prime example of the general war attitude was the employment of B-57s on "Faker" missions to test the reaction of Soviet and North Korean fighter defense systems. Missions were flown to probe Soviet defenses around Vladivostok and Sakhalin and occasionally later north of the 38th parallel off the North Korean coast. Howard Ice, then Operations Officer of the 13th, recalls flying near enough to see the city of Vladivostok on two separate flights. A typical Sakhalin mission was a good 4+20 hr. flight when operating from Johnson AB. In winter, the requirement to wear a "poopie" suit magnified the discomfort of these missions but discomfort was forgotten when a Soviet fighter came up for an intercept. Fortunately, a steep turn at the right moment was all it took to evade the fighter. (The B-57 could out turn any jet flying during that era.)

The primary tool for evading intercepts was the ANI APS-54 radar warning system (officially a Radar Receiving Set). This system enabled the crew to determine when the fighter was in the search mode and when the fighter achieved a lock-on.* On some flights, our own ground radar could also provide the fighter's position.

Returning to the squadron's main mission of the time, the B-57's primary nuclear weapons delivery system was the Low Altitude Bombing System (LABS). LABS enabled the delivery aircraft to approach the target at low altitude and, hopefully, minimize the risk from radar and AAA. Moreover, the low altitude approach gave a reasonable chance of finding the target without reliance on relatively sophisticated navigation systems because the B-57 didn't have such systems. B-57 crews had to rely on dead reckoning and pilotage.

According to the 3rd Bomb Wing SOPs, the LABS run was made at 410 to 420 knots indicated, and usually the altitude was about 100 feet above the deck. In training, the bomb door was opened when crossing the bombing range boundary. In actual combat conditions, the door would have been opened much farther out to allow time to extend the retractable fin on the Mark 7 "special weapon."

The approach was planned directly to the center of the target however, an offset could be computed to allow for wind, assuming such information was available. At the target, the pilot pulled up into a 31/2 G maneuver. The pull- up was accomplished using the pitch and roll needles on the LABS instrument. A few degrees past the vertical, the bomb was automatically released and traveled on up to about 9000 feet. And, of course, it then turned over and came back down, hopefully right on the target. Meanwhile, the aircraft went over the top of the maneuver about 5000 feet.

At first we could choose between a LABS loop recovery or a so-called Immelmann maneuver over the top. The loop recovery option was deleted or given up sometime in 1959. One of the reasons was --who wanted to be going in the wrong direction to escape from the target after dropping the real thing? Though going over the top was usually referred to as an Immelmann, it more closely resembled a half Cuban 8 because you wanted to rollout nose down and be descending and picking up speed in order to get as far as possible away from the weapon when it went off.

On the LABS maneuver, the navigator usually made the computation for the offset for wind. In addition, the navigator helped in calling out the LABS pull point, particularly the long/short aspect.

The second mode for delivering nuclear weapons was the SHORAN bombing system. This enabled a drop from a fairly high altitude and the system was quite capable of pretty good accuracy. As a matter of fact, we were about as accurate with SHORAN as LABS.

SHORAN was also a team effort with the navigator controlling the bomb run. The pilot did have an instrument - it was called a PDI (Pilot Deviation Indicator) --that he could use to fly the arc, but the navigator was pretty much in control of the whole bombing operation. If the pilot wasn't that good at flying the PDI, the navigator could talk him down the arc. Some of the navigators referred to that as the banana-on-a-stick technique. The reference was to the front-seater as an ape leaning toward the banana depending on which shoulder the back-seater dangled it over. Some say this was a prime example of navigator humor. Others say navigator humor is an oxymoron.

We also had an APW -11 radar bombing system that could be used for medium to high altitude drops. It was ground radar controlled via directions given to the pilot on a special instrument on the panel called a Flight Command Indicator.

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Although practiced for a time, this system was given up as an operational ready requirement by 1960.

Tactically, both SHORAN and APW-11 had distinct disadvantages for use in actual combat. Coverage in the target areas was limited and vulnerability to fighters and radar at medium and high altitudes was unacceptable. And then there were the so-called "conventional" weapons. We practiced dive bombing, skip bombing, rockets and strafing with eight 50 calibers on the earliest B-57Bs, and four 20 millimeters on all of the later B models. The 13th was not tasked to maintain operationally ready qualifications on conventional weapons, at least not for the first two or three years. Initially the 8th had the sole conventional weapons responsibility and was designated as the Mobile Strike Force. Eventually, all three squadrons were required to maintain proficiency on conventional techniques.

When speaking of the LABS maneuver and escaping from the detonation after delivery, we have to consider aircraft paint. Most B-57s, with the exception of the E models, came off the production line with the traditional "Intruder" black paint and the red markings that everybody thinks is sexy. To this day, the popularity of the black/red scheme is evident because every place you go, if somebody wants to show you a picture of a B-57, it's black. If you go to a museum, they want to have the thing painted black.

The black paint did not last very long in the 3rd Bomb Wing. It was immediately recognized that if you're trying to get away from a nuclear detonation, one of the worst things to have is black paint, which absorbs heat. So right away there was a big effort to strip the black paint and initially our birds were repainted with a special heat reflective paint. It was probably best described as silver or a light gray in color. It's true that sometime later they gave way to just stripping the paint and flying the aircraft in a bare metal scheme. It was probably decided that the bare metal was just about as good as the special reflective paint.

This paint conversion took place in early 1958, and was mostly completed by the summer of 1958 so, for the record, the 13th B-57s were black for a very short period of time. The rest of the time in Japan, and when they first went into Southeast Asia, the B-57s of the 13th were either reflective paint or bare metal. Nevertheless, the idea of a black intruder was implanted early on and, because of that, we in the 3rd were known as the Black Bears. The wing operation center call sign was Black Bear and, when we had a recall, it was always a Black Bear recall.

Recalls were the first event in a demonstration of the Wing's combat capability and were fairly frequent. A recall could accompany a locally generated exercise or Fifth Air Force operational ready inspection (ORI). They usually started in the middle of the night or early morning so the Wing could demonstrate its ability to generate from an off-duty status. Nobody had a phone in those days and people were alerted either by Air Police or another unit member knocking on the door. Some amusing anecdotes resulted from people being surprised in the middle of the night; however, none are appropriate for this family publication.

The crews would report to ops, receive their assigned aircraft, proceed to their airplanes, and go through a loading exercise. Yes, a loading exercise. We had the Mark 7s there at Johnson and would take the weapons out and go through an exercise loading them on the airplane, and when everything was finished, we would stop, download, and then proceed with the flying events using 25 lb. practice bombs.

The Mark 7s at Johnson were not complete weapons. Under the existing U.S. basing agreement with Japan, nukes were not allowed in country. But if the weapons were minus a certain component, it was an explosive device but not really a nuke. So the idea was, if the big deal ever came, we were going to have the essential part flown to Japan and, by the time we got the aircraft loaded, the missing part would be there to make the thing a full nuclear weapon.

The first flying event was a simulated combat profile consisting of navigation legs ending at a bombing range for a LABS delivery. Crews were graded on times over target and LABS scores. Next, there was a climb to altitude for a SHORAN drop. Sometimes the profiles were of such length as to require a refueling stop --not necessarily at Johnson --before the SHORAN event. Mel remembers being tail-end Charley to all of that and ending up refueling at Misawa and flying the last SHORAN mission out of there in the middle of the night. It seemed like the whole exercise took more than two days without any sleep. Of course, crew duty time and crew rest were not prime considerations in those days. A few years later, Ron Smith recalls mentioning crew rest among some of the more senior members of the 13 th -and being laughed out of the room.

Early on it was evident that there was a need for a faster reaction to a general war situation. As previously described, Japan-based units were encumbered by the requirement to keep critical weapon components outside the country. There was no such requirement in South Korea. Thus the so-called

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"Quick- Strike" alert concept was born. Units on alert at Kunsan with fully functional Mark 7s (that is, no missing components) could react in 15 minutes.

The story of Quick-Strike, how it was initiated and how it evolved, will be the subject of the next installment of the 13ths Forgotten Years.

* According to the Dash 1, the Radar Receiving Set ANI APS-54 transmits visible and audible warning to the pilot when an airborne interception or airborne gun-laying radar system is in position to offer a potential threat to the airplane. The visible warning is displayed by indicator lights on the pilot's indicator panel and the observer's ANI APS-54 control panel. The red lights go on when radar signals arrive from the direction of nose, tail, or both. The green light (observer's panel only) goes on during absence of signals. The audible warning is an audio tone in the headset and corresponds to the pulse rate frequency (high pulse rate for airborne radar and medium pulse or low pulse rate for gun laying or ground radar) of the intercepted signals.