

Remembering the Bendix Air Force

By Guilfred L. Vogt

No history of the Bendix Radio Division would be complete without mentioning the aircraft employed by the division and their uses and the pilots and people who flew in them. Several planes were owned by the division or corporation for use in testing the avionics and radar equipment being developed by the company. Also some of the planes were used for executive and personnel transport duty. As an engineer in a radar and, later, an IFF engineering department, I had only occasional use of these aircraft and association with the people who flew them. I would hope that these brief thoughts and remembrances might encourage others to contribute their own experiences to this subject.

I was prompted to remember these experiences when visiting the Flying Tigers Warbird Restoration Museum located in Kissimmee Florida. While there, I picked up a book entitled "*B-25 Mitchell in Civil Service*" by Scott Thompson and while leafing through it I found a page of pictures entitled "Bendix B-25s" and another entitled "Interview with a Bendix Pilot". Needless to say, I bought the book.

My first experience with Bendix aircraft occurred when I was employed for the summer in 1953. After my junior year in college I worked with Jack Trant and A G Thomas, engineers on the AN-SPN-8, a Navy aircraft landing radar. This radar was set up at the Broening Highway plant for testing. The antenna looked out over Baltimore harbor and the test aircraft flew at low levels toward the radar to simulate landing approaches. One day, I was asked if I wanted to fly in the test aircraft and jumped at the chance. The test aircraft was flying out of Harbor Field Airport which was located next door to the Broening Highway plant. It was most memorable, the flight that day was as low to the water as possible and I actually looked UP at the ships masts as we flew beside them toward the radar! I believe the aircraft involved was a twin engine Beechcraft but I have no recollection of the pilot. Can you imagine that happening in today's times?

During the 1950s and 1960s, Bendix had several aircraft including additional Twin Beechcraft, DC-3s and B-25s. These were corporate owned (or on loan from the military) and assigned to the various divisions as the need arose. At Radio Division, development work was being done on both ground-based radars such as the AN/FPS-3 and MPN-5, airport surveillance radars such as the ASR-3, and also the first airborne weather radar, the RDR-1. This airborne weather radar would become standard equipment on many commercial and civil aircraft. The aircraft were used to test these radars. About the time I started working at Bendix I remember one story concerning flight testing the RDR-1 weather radar. It seems that the pilot was directed to fly into a particular weather pattern which was observed on the radar screen in order to learn how to interpret the weather returns. This particular pattern was shaped like the letter C and the plane flew into the open part of the C. The aircraft survived, however this was the occasion when it was first learned that in this particular pattern the weather is the most violent and should always be avoided. Fifty years later Bendix/Honeywell is still a leader in the aircraft weather radar business.

My first involvement with the aircraft occurred on a phased array radar program. Starting in the late 1950s Bendix developed several phased array radars. These radars utilized multiple

transmitters and receivers in an array of antennas to allow various electronically scanned antenna beam shapes. In order to test these transmitted and received patterns it was necessary to fly an aircraft through the beams. The aircraft of choice was a B-25 which had room enough for a transmitter to “talk to” the receive array and also a receiver and recorder system to “listen to” the transmit array. The aircraft was directed and observed by people using a very precise theodolite and in this manner the antenna patterns were tested and verified. Now remember, the radars were located at the Bendix Radio facility on Joppa Road. The first was a test array pointing straight up and the aircraft would fly directly overhead. The flight path was typically from west to east, Pimlico to Essex, over populated areas. Some flights were at night, in which case the B-25 would light a tracking light for the theodolite operator. As I recall, these flights were often the subject of articles in the Baltimore newspapers.

The program I was involved with was a study program to widen the bandwidth of a phased array receiving system and utilized a new linear array which again aimed straight up. Our flights were all conducted during daylight hours to minimize the complaints. The program was under the direction of Andrew Pickens, the test director was Charles Wiggle, and the engineer who operated the transmitting equipment in the B-25 was Clair “Hap” Baker. As a result of discussing this activity at the monthly meeting of retired Bendix engineers, I met someone who remembered that Warren Baker was the pilot for much of this testing and had Warren phone me. Warren remembers the testing as good work; he could fly all day and still be home for dinner. He plans to join us at the retirees’ lunch.

As I recall, the time frame for this program was 1963-64, and at that time Bendix Aviation Corporation had three B-25s. According to Scott Thompson, two B-25s, numbers N69345 and N5548N were used in test programs, with N5548N assigned to Radio Division. I believe we used this latter aircraft which was described as “fitted with several experimental radars used in the space program and was instrumental in the development of the Bendix Doppler radar navigation system.” This Doppler navigation system would also become standard equipment on many commercial and civil aircraft.

The test aircraft, N5548N, was obtained in 1951 and used until 1967. A current (1996) picture of this aircraft is shown in Scott Thompson’s book with the following included in the caption; “The Weary Warriors group of Rockford Illinois took a derelict ex-Bendix B-25 airframe in 1981 and have slowly brought the airplane back to its current excellent condition.”

The third aircraft, N3184G, had been modified to carry passengers and was used for this purpose by Radio Division. Andy Pickens, Jim Lyons, and I flew in this B-25 to Rome NY to present a paper which we had coauthored on the results obtained in the wide-band phased array study. I particularly enjoyed the ride home when I rode (slept) in the bunk bed which was located over the wing of this mid-wing aircraft. The date for this trip was April 14-16, 1964.

Noble Pribble also remembers being a passenger in this aircraft on a trip to Eglin AFB, Florida, while working on the AN/FPS-85 phased array radar. His experience included hearing the pilots radio the tower as they were nearing Eglin that they had smoke in the cockpit. Equipment was turned off and fortunately the smoke stopped. Upon landing, there were lots of fire trucks waiting beside the runway in case they were needed.

Again according to Scott Thompson, this aircraft had been modified by the manufacturer, North American, and delivered August 1944 for use by General H. H. (Hap) Arnold during World War II. It is reported to have been bought by Bendix in 1963, sold in 1967, and later crashed in Bolivia in 1976.

I would very much like to include information regarding other pilots of these aircraft. Should any one out there be able to provide this information, my E-mail address is Fredylou@maxinter.net. I am aware of one pilot who is familiar to many in Baltimore. This would be Donald Grempler who was a pilot for Bendix for many years before joining his wife in the real estate business of that name. He would establish the first computer use in the sales listing of real estate. The Bendix pilot who was interviewed by Scott Thompson was Don Harner. He was the chief test pilot for Bendix at South Bend, Indiana, and in 1996 was the president of the Yankee Air Force.

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