

FORECASTING FOR NORTH ATLANTIC ANTISUBMARINE AND OTHER OPERATIONS DURING WORLD WAR II

LCDR Norman L. Canfield, USNR (Ret.)

This personal chronology is by a guy who enrolled at the University of New Hampshire in 1938 with a goal of becoming a weather forecaster upon graduation. Then the U.S. Weather Bureau or airlines were the only obvious potential civilian employers. But the Japanese attack at Pearl Harbor on 7 December 1941 changed all that.

First Navy Active Duty Assignments

In March 1942 I was one of 14 newly-commissioned Ensigns who, along with a similar number of civilians and about 100 U.S. Army Air Forces Cadets, started a 9-month concentrated graduate meteorology curriculum at the Massachusetts Institute of Technology (MIT). The ten of us Ensigns who graduated in November 1942 were ordered to various offices and stations. In my case it was Naval Air Station (NAS) Bermuda where the Officer in Charge (OIC) of the weather office was LT Henry Silsby and the Chief Aerographer's Mate (CAerM) was Lester From.

At that time NAS Bermuda was strictly as seaplane base, mainly home to PB4Y (Catalina) and PBM (Mariner) squadrons. The airport at the eastern end of the island was an Army Air Forces base but later in 1943 also was home to at least one Navy PB4Y-1 (Liberator) squadron.

In addition to daily forecasting for antisubmarine patrol operations planning and preflight briefing of flight crews, weather duties included regular briefing of American Export Airlines PB2Y (Coronado) contract crews for flights to Puerto Rico, Trinidad, New York City and elsewhere. This function included preparation of "flight folders" which later became an International Civil Aviation Organization requirement for postwar transatlantic commercial flights.

A favorite recollection of my work in Bermuda is a successful exercise that took place not very long after my arrival. A raft with survivors from a torpedoed ship was located north of the island but weather precluded aircraft visual search for at least three days. My seemingly hopeless task was to estimate where the raft would be when the weather improved. I parlayed repetitive hours of surface map study with what little oceanography was taught at MIT and every other reference I could find into delineating an area to search when visibility improved. As I recall it was the second day of searching when the survivors were sighted and a surface ship notified. It was a "Wow!" moment for me when the flight crew returned and told me of the successful sighting.

A really impossible task arose a little later. After one in a series of regularly scheduled North Africa bound convoys of combatant surface ships encountered a deep closed low pressure area to the east of Bermuda, several LCIs (Landing Craft Infantry) capsized. We could have warned the “black shoes” at the collocated Naval Operating Base (NOB) but they had never contacted the NAS weather office about anything. After the ship losses things went to the other extreme. NOB added a full weather briefing prior to departure of each convoy. The sparse observational coverage and limited forecasting ability at that time, of course, required an active imagination and the briefing sometimes seemed to approach science fiction. Usually I was the one who took the stage to deliver the best week-long transatlantic forecast I could come up with.

As the 1943 Atlantic hurricane season was coming to a close, I received orders for my next assignment.

NAS Squantum, Massachusetts

Frankly I was astounded about the transfer to Squantum in two respects: (1) not only was I going back “stateside” but I was going back to the Boston area that I’d just left eleven months earlier, and (2) I would be OIC of the weather office on an active NAS at the ripe old age of 21.

My predecessor had already left but the transition went quite smoothly thanks in no small measure to CAerM Joseph Finn who had arrived a few months earlier after duty on Guadalcanal in the South Pacific.

Antisubmarine patrols were of the nearshore variety carried out by two SBD (Dauntless) squadrons. Throughout my tour these two squadrons were outnumbered by fighter, torpedo, and other SBD squadrons completing operational training prior to assignment to aircraft carriers. There were numerous special project flights also requiring weather briefings. An occasional “customer” was RADM Richard Byrd of polar exploration fame.

Meanwhile, throughout 1944, new aircraft carriers, battleships, and cruisers were being outfitted and staffed at the nearby Charlestown Navy Yard and its South Boston Annex prior to going to sea. At various times, I received phone calls from Aerographer Mates aboard each type of ship asking if I could come help them get organized. It turned out that mainly they needed an officer to confirm to their ship’s officers what their duties were, the equipment they needed, etc. I was glad to help and apparently did so effectively. This routine was readily understandable in the case of the one enlisted weatherman aboard a battleship or a cruiser. But in the case of carriers, the AerMs would report weeks before the aerological officer showed up so the AerMs would be reporting to officers with, shall we say, limited knowledge.

September 1944 brought what I like to think was my best forecast of World War II. Beginning at least seven days before a hurricane swept northeastward across southeastern New England, I made it a point to brief personally the Executive and Operations Officers every day about the storm and its likely significant impact on NAS Squantum. At first virtually nothing was done, but preparations eventually began and all planes were flown inland before the hurricane arrived to do some damage to the NAS main hangar.

With another hurricane season in the record books, apparently it was time for my next transfer. Those orders would return me to supporting really long-range antisubmarine patrol bombing squadrons.

Headquarters, Fleet AirWing Seven (FAW-7)

FAW-7 headquarters was collocated with Royal Air Force Coastal Command 19 Group in Plymouth, England with squadrons of multi-engine aircraft at several bases from the southwestern coast of England to Northern Ireland. The antisubmarine patrol areas assigned to the joint command not only covered the English Channel and the Irish Sea but also extended southward to the Bay of Biscay and westward far out over the North Atlantic Ocean.

The main base for three U.S. Navy PB4Y-1 squadrons was Naval Air Facility (NAF) Dunkeswell, about 60 miles northeast of Plymouth, where the CAerM was John Murphy.

CDR Clifford MacGregor had been on duty around the northern North Atlantic seemingly forever and had been senior aerological officer for FAW-7 from its beginning. Earlier he had been a polar explorer in his own right. He was a larger-than-life character in every way imaginable and more than a few tales had been told about him. So this 22-year-old LT wondered what he was getting into.

Actually I was received with utmost cordiality. In only two or three days, CDR MacGregor explained clearly and efficiently what I needed to know and then he was on his way home for a long-overdue and well-deserved leave.

The other FAW-7 weather officers were detailed to the NAF to help with the sizable 24/7 briefing load. Five AerMs and I manned the headquarters weather office (half a Quonset hut) and for me it was always a seven-day work week. Weather map and forecast coordination discussions with NAF forecasters continued at least twice daily for the duration of the war in Europe.

After V-E Day, 8 May 1945, German submarines all made port and surrendered within two weeks. At that point, regularly scheduled patrols ended. But a treat remained. Ground support personnel were invited to take a day trip to Paris on a PB5Y-5A (Catalina). Each person drew a date lottery style. I don't remember the number of passengers allowed each day, only that on my date the amphibian aircraft was really crowded. We took off happily not knowing a mechanic had forgotten to replace the oil cap on one engine. But before reaching the French coast we learned that we would be landing on the English Channel, not Orly Field in Paris. So much of the day we didn't see Paris was spent slowly taxiing on one engine back to the southern coast of England.

In late June 1945 we were all back in Norfolk, VA and FAW-7 soon was decommissioned. My final duty station was NAS Quonset Point, RI. Discharge points and accrued unused leave happened to make my official honorable discharge date 25 December 1945.

Note: A history of FAW-7 and its squadrons is the subject of a 2003 book by Alan C. Carey with the title *U.S. Navy PB4Y-1 (B-24) Liberator Squadrons in Great Britain during World War II*. Details available at www.schifferbooks.com.

Lasting Connections

In my view the competence and professionalism of the first patrol squadron I worked with at NAS Bermuda was never matched by any other. Most of the PB5Y patrol plane commanders of VP-52 originally were enlisted pilots and now were very knowledgeable (and weatherwise) leaders. Years later when I read a definition of a true professional -- one who takes his job seriously but not himself -- my first thought was how well that summarized the outstanding members of VP-52.

In late spring of 1943, VP-52 was transferred to the South Pacific and became VPB-52, a "Black Cat" squadron. Their numerous successful night attacks on Japanese shipping in late 1943 are described in several histories, most notably Chapter 10 of the 1981 book *Black Cat Raiders of World War Two* by Richard C. Knott. I had begun to hear of their courageous and effective actions in 1944 but was really not surprised. In my experience, they were the best.

As the 50th anniversary of VPB-52 accomplishments approached in 1993, I became curious and found out that the squadron was having annual reunions. I called the designated contact. I didn't remember him but he remembered me and immediately invited me to attend the next reunion. I was very pleased to be "readopted" by the squadron and I attended several subsequent reunions. Sadly their numbers are now so small the reunions have ended. But the record of that outstanding World War II squadron lives on.

As mentioned at the beginning of this piece, my Navy active duty started at MIT in 1942. About midway through that graduate meteorology program, a mutual friend introduced me to Virginia Richardson of Medford, MA and dating soon began. Dating resumed when the surprise transfer to NAS Squantum, MA occurred in late 1943 and we married in July 1944. The marriage lasted 65 years until Virginia lost a long battle with chronic heart disease in January 2010. Somehow I think that a 65-year marriage may qualify as a lasting connection.

A Final Navy Note

After the war, I started as a U.S. Weather Bureau employee in April 1946. In 1951 I switched from aviation forecasting to climatological services. When the Navy contracted with the Weather Bureau in the mid-1950s to produce the U.S. Navy Marine Climatic Atlas of the World, I became managing editor for the first edition of the several volumes in that series. In terms of number of weather observations used, it was clearly the world's largest climate data processing and analysis project undertaken up to that time.

In conclusion, it was Navy requirements that not only made me grow up fast but also sharpened my skills in both specialties of my meteorological career. In the 1940s it was weather forecasting; in the 1950s and early 1960s it was worldwide climate analysis. This period spanned 23 years until 1965 when I moved to other supervisory and administrative positions in the National Oceanic and Atmospheric Administration (NOAA) until retirement from full-time work in 1982.

- - -