Building Spotter Models for the War

by Wilfred M. Husted

I was born and raised in the small town of Bridgeton in southern New Jersey. The United States entered World War II in December 1941 when I was 13 years old and in junior high school. My curriculum included woodshop where students usually made such things as breadboards, fancy little wall shelves, or wood bowls turned on a lathe. However, not too long after the war began—I believe it was late winter or spring 1942—my entire woodshop class, all males, became involved in making wood aircraft recognition models. We school kids had been or were collecting milkweed pods for life jacket filler, as well as tin cans, aluminum and newspaper, but we considered making the recognition models a more direct participation in the war effort.

Early in "the emergency," the Secretary of the Navy asked the U. S. Commissioner of Education about the possibility of the nation's schools making 500,000 scale model airplanes "for such purposes as recognition, range estimation, and determination of cones of fire." Following a number of conferences, it was determined that the schools would be able to produce these scale aircraft identification models. The U.S. Navy Bureau of Aeronautics supplied plans and drawings, and the U.S. Office of Education provided required educational and information material for the construction of the model airplanes. There were seven sets of plans, lettered A-G, totaling 90 individual aircraft.

Schools were provided sets of plans, directions and specifications, and master templates for several types of aircraft to be made in 1/72 scale. The templates were used to check fuselage, engines for multi-engine planes, wing and tail parts, and plan and cross sections. I remember that ours were made of a durable, hard, dull pinkish material resembling plastic. These templates were hung on nails along a wall of our woodshop where they were available to all of us.

Each student selected the type of airplane that he would make from the list of aircraft our school was requested to make. I chose the Grumman F-4F Wildcat. One of the kids in our class was especially skilled at working with wood. He chose to make one of the large four-engine flying boats of the period. It may have been the British Sunderland. We were all envious of his skill and kept an eye on his progress, which was much faster than ours. When finished, his flying boat was a thing of beauty.

Prior to beginning work on our airplanes, we had to cut out the templates of the various parts of our planes from the full-size sheets provided for each aircraft, made of manila folder stock. From time to time, we would take our planes over to the master templates or take them to our work tables to check the accuracy of our models as they began to take shape. The demands for accuracy were very strict, and models would be rejected if they did not meet specifications.

To begin our models, the shop teacher cut appropriate size blocks of wood for fuselages and small slabs for the wings and stabilizers. We'd then trace our airplane's fuselage side and top views on our blocks of wood and
the other parts on the little slabs. Our teacher would then cut the fuselages in side and top views with the shop band saw. I think that we cut out the wings and tail parts using coping saws.

The fuselage usually was the first part to be tackled. Since my Wildcat had a mid-wing configuration, our shop teacher left the portion of the fuselage below the wing in place while cutting out a slot for the wings. The saw blade space that remained would be filled in with wood filler after the wings were installed. I used my penknife and an Xacto knife to carve the fuselage. When it began to resemble the actual airplane, frequent checks of the cross section were made using the working templates. These were usually worn and misshapen by frequent use, and new templates had to be made to ensure accuracy. Occasional checks with the master templates were made as the fuselage neared completion. Sanding of the fuselage was done with successively finer grades of sandpaper, and final checks were made with the master templates.

The wings and tail parts had to be tapered from root to tip and planed to an airfoil cross section. These were done before the wings and tail sections had been cut from the little slabs of wood. Block planes were used to shape these parts. Like the fuselage, wings and tail parts were frequently checked with our cardboard templates as shaping progressed. The master templates were used to make final checks.

After all parts of the airplanes had been completed to specifications, they were assembled with brownish glue made from a powder mixed with water at the shop. My Wildcat was a fairly simple model, but others had exhaust stacks and various small parts that had to be made and glued to the model. My second airplane was the Mitsubishi A6M Zeke or Hamp, I can't remember which. This model had tiny teardrop blisters on the underside of the wings. I think that these were for the machine guns. I made these blisters with the brown glue. A drop of glue was carefully placed in the correct position. After the glue dried, the blister was shaped by "micro" carving and sanding with fine-grade sandpaper. Talk about tedious! At the time I wondered if these tiny blisters could be seen from any distance at all, especially after painting the model. Wing fillets were added and saw cuts filled using wood filler that was very carefully sanded to the correct shape. When a model was completed, the shop teacher checked each one using the master templates. If accepted, models were completely sprayed with flat black paint. After the paint was dry, each model was packed with fine-curled wood shavings in a corrugated paper box of appropriate size and labeled for shipping.

This model-making effort didn't last very long. Within a year or so, the wood models were replaced by dull-black molded "plastic" airplanes. We were all unhappy to no longer be making the wood models, but all of us received certificates in recognition of our efforts.

I kept the fuselage of my first Wildcat that didn't meet specifications. It had been sanded too much and was slightly too small. This reject, along with the incomplete PBY, my Civil Defense messenger armband, the aircraft identification model book, and quite a collection of World War II memorabilia disappeared after I joined the Air Force in 1947. My father had passed away early in the last year of the war, and my mother eventually sold our home in Bridgeton and went to work at a VA hospital in northern New Jersey. All of our stuff had been stored and had been rifled sometime before I was discharged in early 1955. I still mourn the loss of that little airplane fuselage and sometimes wonder if any of the wood models survive today in someone's attic or cellar, a museum or a dusty storeroom at one of the surviving buildings at a WWII airbase.

Wilfred (Wil) M. Husted spent seven years (1947-1955) in the Air Force as an airport traffic controller and attained the rank of staff sergeant. After discharge he attended the University of Colorado-Boulder and later was employed as an archaeologist with the National Park Service. Wil retired in 1988 and moved with his wife Beth to Montana where they enjoyed hiking, fishing, and cross-country skiing in the mountains until age and mileage caught up with them. He found the model-making habit difficult to break and still has two or three kits that he may try to construct one day!

We found a collection of these models here at the National Museum of the U.S. Air Force, along with original blueprints and instructions booklet. See "Artifact Spotlight" inside back cover.