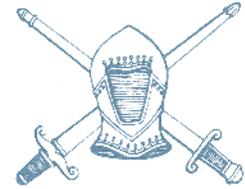




THE GRAY



It is, quite simply, the most promising clue ever discovered in the 53 year search for Amelia Earhart and, with the help of TIGHAR's members, may soon become the long-sought proof that solves the mystery of her disappearance. Found by TIGHAR on the island of Nikumaroro, September 18, 1989, its aluminum structure and features aroused suspicion that it might be an aircraft component. Subsequent research revealed that the numbers stamped into the metal identified it as Part Number 28F 4023, a Navigator's Bookcase manufactured by the Consolidated Aircraft Corporation of San Diego, California for their Model 28 flying boat, known to the U.S. Navy as the PBY Catalina. Because PBYs were used to resupply the U.S. Coast Guard radio station on the island during World War II, the bookcase was, at first, thought to have come from one of those aircraft (see *TIGHAR Tracks* Vol. 5, No. 5, December 1989). However, further research has now shown that explanation to be incorrect.

- Wartime PBYs carried a later model bookcase than the one found on the island.
- Paint remnants on TIGHAR Artifact 2-1 do not appear to meet U.S. government specifications.
- The mounting holes and fixtures on our bookcase are all wrong for installation in a PBY and the unique features present are so professionally rendered as to eliminate the possibility of a field modification.

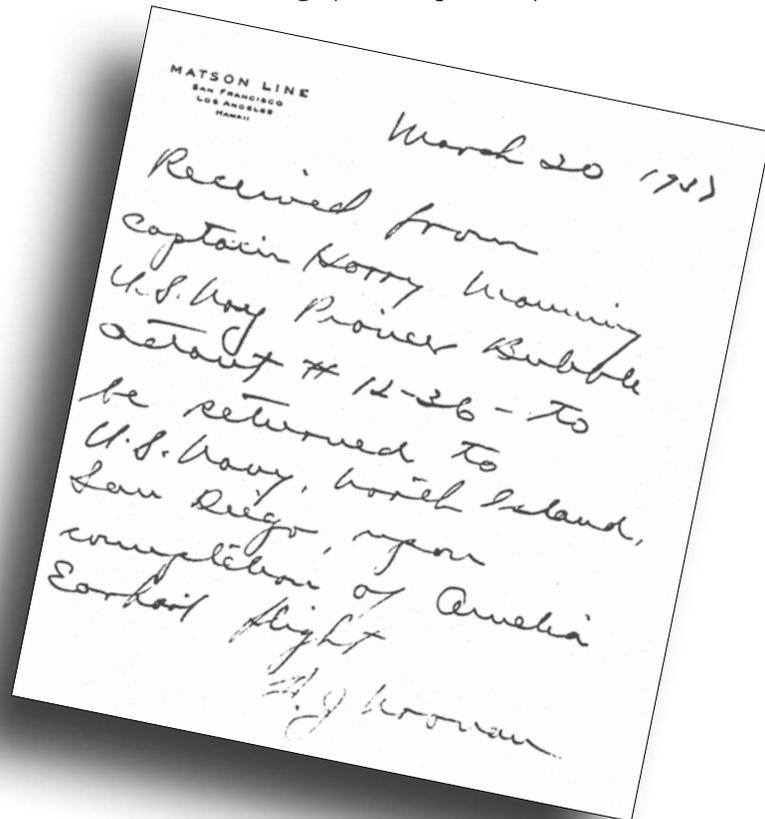
Analysis and opinion by experts at the United States Air Force Museum Restoration Facility at Wright-Patterson Air Force Base, Ohio and at the Smithsonian's Garber Facility, Silver Hill, Maryland, indicate that TIGHAR Artifact 2-1 was obtained from the manufacturer before PBY mounting holes were drilled and that specialized mounting features were added to install the bookcase in some other aircraft — an aircraft that did not have to meet government specs.

The presence of such an artifact on Nikumaroro is, to say the least, intriguing. There has never been an airstrip on the island nor a known airplane wreck (wartime or otherwise). There is, however, an impressive body of evidence that the island's reef-flat was the landing place of the lost Earhart/Noonan flight. Could the bookcase have come from that airplane? Here's what we know so far:

- The Electra's navigator would have need of just such a bookcase in which to stow precisely the navigational reference materials (Air Almanac, Sight Reduction Tables, etc.) it was designed to accommodate.
- Early versions of the bookcase (such as Artifact 2-1) were available in late 1936/early 1937 when the Electra was being outfitted for the 'round-the-world flight.
- The navigator's station aboard the Electra was not part of the original construction by Lockheed but was designed, probably with Harry Manning's advice, and

built, probably at Paul Mantz's facility, sometime between September 1936 and early February 1937.

- Harry Manning was borrowing navigation equipment with which to outfit the Electra from the U.S. Navy at North Island, San Diego (see receipt below).



This little gem was discovered by Russ Matthews (TIGHAR #0509) during his examination of the Harry Manning Collection at the American Merchant Marine Museum at King's Point, New York on June 10, 1990. It is a hand written receipt dated March 20, 1937 for U.S. Navy Pioneer Bubble Octant # 12-36 given to Manning by Fred Noonan and specifying that the instrument is "to be returned to U. S. Navy, North Island, San Diego upon completion of the Earhart flight." March 20th is the day Amelia groundlooped the Electra on takeoff in Hawaii with Manning and Noonan aboard. After the accident Manning, his confidence in AE's ability much shaken, abandoned the project and turned over all the navigational responsibilities, and the equipment he had assembled, to Fred Noonan. The significance of this receipt is that it proves that the navigator's octant used for the flight was borrowed from the U.S. Navy at San Diego. We suspect the same was true of the navigator's bookcase. Nice goin', Russ.

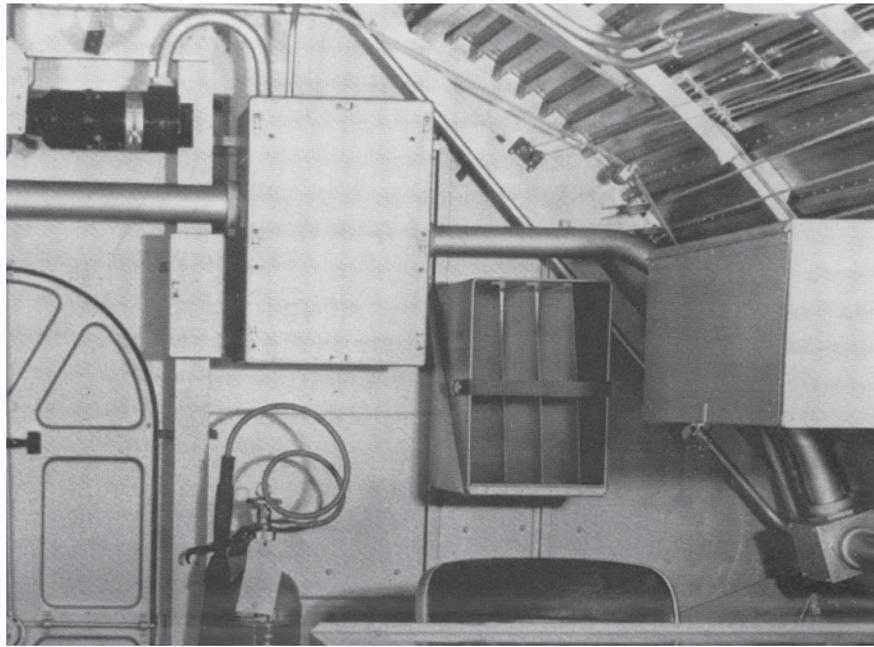
But if the bookcase was aboard the Electra why did it and no other part of the airplane end up on the island? If TIGHAR's hypothesis concerning the aircraft's fate (that it was landed on the dry reef-flat at low tide and was subsequently washed over the reef edge a few days later) is correct, the bookcase is, perhaps, the only aircraft part that would be found on the island. If you were Fred Noonan

seeking to rescue your crucial navigational materials from an aircraft awash on a reef-flat wouldn't you remove five screws and take your bookcase ashore? Later, during the period when the island was inhabited (1938-1963), someone cut the bookcase apart to convert it to their own use. TIGHAR found the discarded portion among the debris of the abandoned village.

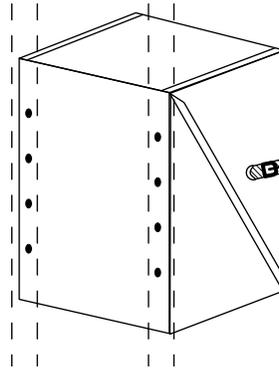
Given what we now know about the artifact, the aircraft and the island the bookcase's presence aboard the Earhart Electra is not merely an enticing possibility but, rather, the most sensible explanation of its presence on Nikumaroro. What we need now is proof and for that **we need your help**. If we can find a photo or official sketch which shows our bookcase in that airplane Artifact 2-1 will become nothing less than the Holy Grail of aviation historical investigation — the diagnostic artifact that solves the Amelia Earhart mystery. With that proof in hand, funding for next year's return to find and photograph the airplane in the deep water near the island would be virtually assured.

So far, we've found documented information about the navigator's station aboard the aircraft to be very scant. The only photos we have show AE and Manning sitting on the navigator's table and looking out the forward, starboard window. They show very little of the actual set-up. Descriptions in Earhart's book *Last Flight* and in contemporary newspaper articles are brief and not very helpful. The cut-away drawing of the Electra which appeared in the *Time/Life* book *Women Aloft* purports to show the navigator's station, but we've tracked down the man who supplied the information to the artist and he admits he was speculating. Analysis of the few photos available shows the drawing to be incorrect. Included here are the best reconstructions we've been able to make so far. There seems to be one place where the bookcase would reasonably fit but there may be others.

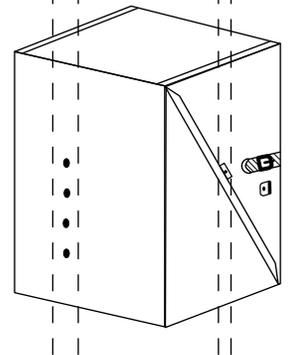
TIGHAR members who would like to assist in the search for this crucial piece of evidence — in this quest for the Holy Grail— are urged to contact Project Director Richard Gillespie at TIGHAR. He'll tell you what sources have already been covered and help you direct your search. Despite the admittedly Arthurian overtones of this whole thing, Ric has promised not to insist on vows of purity and chastity (although he reserves the right to confer an occasional knighthood). Let us hear from you.



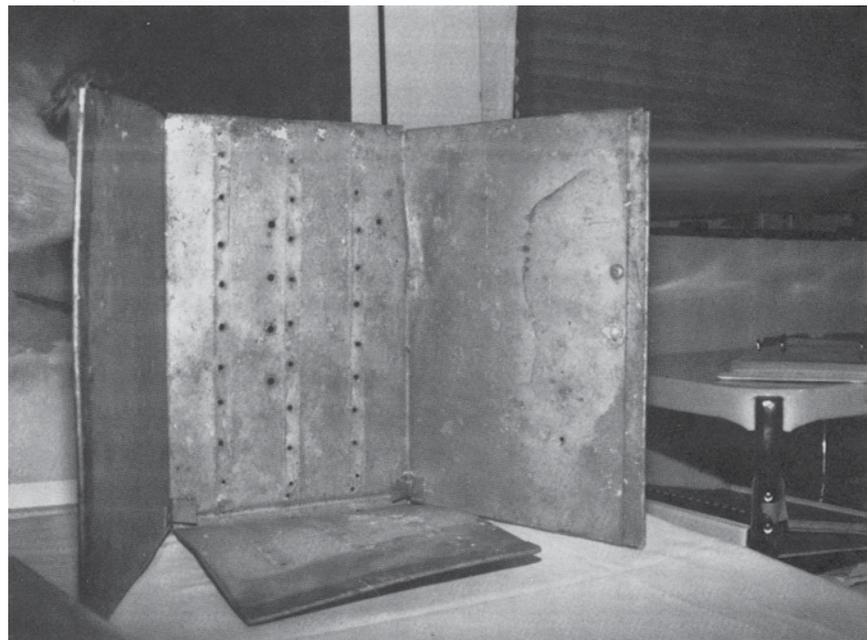
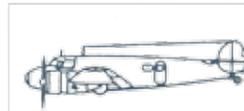
Bookcase as installed in a PB4Y.



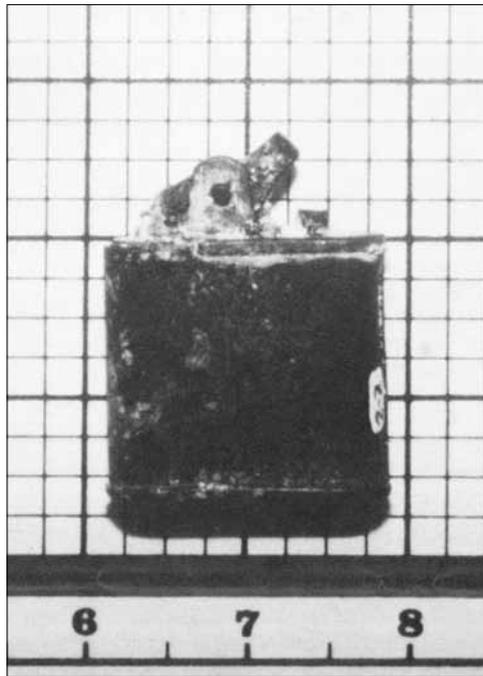
Installation of bookcases in PB4Ys.



Installation of Artifact 2-1.



Artifact 2-1.



Artifact 2-7, cigarette lighter.

More on the Lighter

Work is continuing in an attempt to find out all we can about the cigarette lighter found on Nikumaroro's southwest beach (see *TIGHAR Tracks* Vol. 5 No. 5). So far we can find no unique markings or features which might allow us to connect the artifact to a particular source but W.T. Chase, Head Conservator at the Smithsonian Freer Gallery of Art, has performed a laboratory examination of the lighter and has offered his opinion that the accumulation of cuprite crystals (a product of oxidation) visible under magnification indicates that the lighter had been in the highly corrosive sands of Nikumaroro for "fifty to sixty years." That puts it within the time frame of the Earhart disappearance in 1937 and the USS *Bushnell* survey in 1939 rather than the World War II and postwar period. That corresponds with Miami lighter expert Jack Seiderman's opinion that the lighter was sold in the U.S. sometime in the early 1930s. What is clear is that an expanded metal detector survey needs to be done along the island's beach front and that work will be incorporated in next year's return to Nikumaroro. 

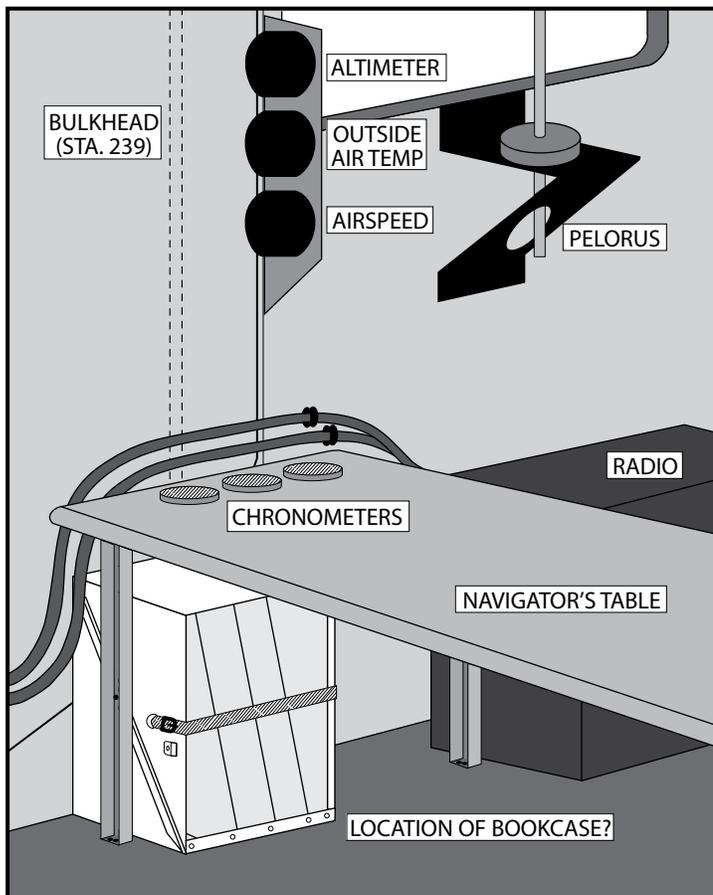
Not Even Close, and Definitely No Cigar

Previous attempts to establish physical proof of Earhart's fate have been disappointing. In 1960 Fred Goerner (*The Search for Amelia Earhart*, Doubleday, 1966) recovered an aircraft generator from the bottom of Tanapag Harbor, Saipan. Earhart's former technical advisor, Paul Mantz, announced at a press conference, "[I]t looks just like the generator I put aboard AE's plane," but an inspection by the Bendix Corporation later established that the part "...did not come from the plane in which Amelia Earhart disappeared ..."

In 1961 Goerner tried again with bones dug up on Saipan. Pathological analysis found the hypothesis that they were the remains of Earhart and Noonan to be "not supported."

A 1979 expedition to the Marshall Islands recovered a fragment of what was thought to be the mysterious "silver container" allegedly buried by Earhart and Noonan prior to their supposed capture by the Japanese (*Amelia Earhart: The Final Story*, Loomis/Ethell, Random House, 1985) Analysis, however, showed it to be a nondescript piece of sheet metal.

In 1988 *Witness to the Execution* (T.C. "Buddy" Brennan, Renaissance House) proclaimed a fragment of cloth found buried on Saipan to be the blindfold used in Earhart's execution by the Japanese. Brennan's witness, a Mrs. Blas, claimed to have seen the soldiers "tear the blindfold from her face and throw it into the hole" before shooting her. No explanation is offered for this procedure (at TIGHAR we generally leave the blindfold on when we shoot prisoners) nor for the absence of any bones in the alleged grave. Analysis of the "blindfold" showed it to be simply a piece of cotton cloth. 



Navigator's station, NR16020, starboard side looking aft.