

TIGHAR TRACKS

A PUBLICATION OF THE INTERNATIONAL GROUP FOR HISTORIC AIRCRAFT RECOVERY

FINDING AMELIA



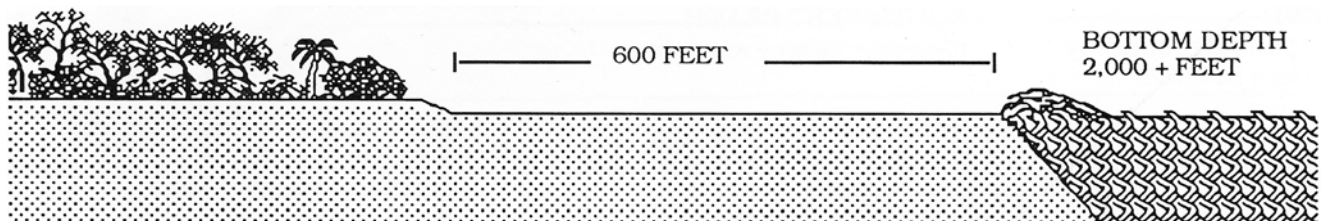
The expedition has returned, and the answer to the universal question “Did you find her?” is maddeningly, but predictably, “Maybe.” Like all scientific expeditions this one produced volumes of carefully collected information -- reams of journal entries, thousands of photographs, hours upon hours of videotape and some very interesting artifacts -- all of which must be catalogued, compiled and evaluated before the results are fully understood. A few general conclusions are, however, immediately apparent.

- No great silver airplane was found lurking in the bushes or clinging to the reef. But that doesn't mean it's not there. Nikumaroro (Gardner Island) offers more obstacles to search operations than are apparent on maps or aerial photographs. The lack of any safe anchorage, the steepness of the fringing reef and the island's almost impenetrable vegetation make it a virtual fortress. In three weeks of intense effort the TIGHAR team was able to do selective inspections of many areas but a

conclusive examination of the entire island was out of the question.

- The broad, flat expanse of hard coral which surrounds the island's shore dries at low tide to provide a very attractive surface upon which to make a forced landing. However, a disabled aircraft on that reef-flat would, at high tide, be partially afloat in 3 to 4 feet of water. Over a period of a few days tidal cycles would move the aircraft inexorably toward and ultimately over the edge of the fringing reef. From there it's a steep plunge to depths of 2 to 4 thousand feet (far deeper than our divers could search). Such a scenario would explain radio distress calls that lasted only three days and were received only at times corresponding to low tide at Gardner. It would also account for phrases in those messages such as “on coral southwest of unknown island” and “don't hold -- with us -- much longer -- above water -- shut off.”

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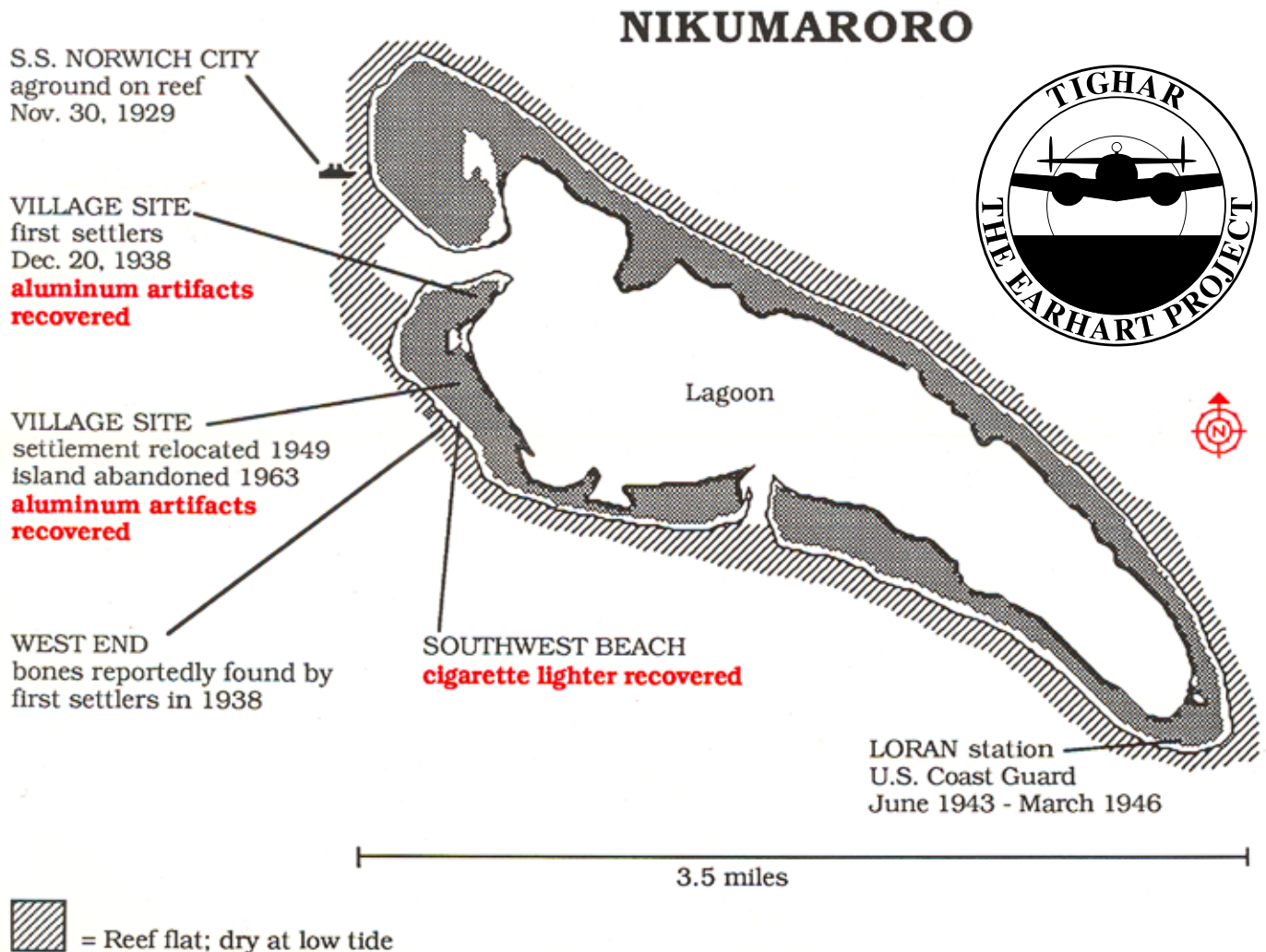
The reef-flat at Nikumaroro dries at low tide to provide an attractive landing area. Tidal hind-casting done for TIGHAR by NOAA indicates that Earhart would have arrived over the island at low tide.

If Earhart and Noonan did end up marooned on the beach at Nikumaroro we can say with some certainty that they would no longer be able to respond by the time the Navy search aircraft came over a week later. TIGHAR search teams operating on that beach recorded temperatures routinely above 120° F and consumed one quart of water per hour to compensate for fluid loss. In 1937 there was no fresh water available on the island and a week is about the limit of human endurance under those conditions. That would account for the “clear signs of recent human habitation” reported by search pilot Lt. John Lambrecht as well as his failed attempts to “elicit an answering wave.” It might also explain the woman’s skeleton wearing American shoes reportedly found on that beach when the first settlers arrived there in late 1938.

In short, the expedition found no instant, easy answer to the Earhart puzzle. What it did find was a place where the pieces of that puzzle fit together to make a clear and rational picture. There is still a great deal of work to be done to find out whether or not the picture is an accurate one. Nineteen separate artifacts were recovered from Nikumaroro, some of

which give the impression of being aircraft parts. A cigarette lighter found buried on the southwest beach could conceivably be Noonan’s. There is also reason to suspect that British records from the early days of the colony at Nikumaroro may contain confirmation and detailed descriptions of the bones reportedly found there.

The Earhart Project now moves into its third phase. The first phase was an exhaustive review of the documented facts surrounding the disappearance. That research clearly indicated the need for Phase Two, an on-site examination of the most likely place for the flight to have ended. That phase was completed with the return of the expedition. Phase Three will involve the compilation of data gathered during the expedition, the publication of those results, the evaluation of the artifacts recovered and the investigation of new sources such as the British colonial records. It’s going to mean more work, more time, and, of course, more money. You, the members of TIGHAR, have made The Earhart Project the success that it is. As always, we’ll be demonstrating our appreciation by making available to you the results of the work you make possible.





Quick & Dirty Aviation Archaeology News in Brief



Success in Greenland

The Greenland Expedition Society returned from last summer's efforts on the icecap with solid proof that they have at last located the famous Lost Squadron. Two B-17s and six P-38s were landed on the ice in 1942 when weather aborted their ferry flight to Britain. In recent years numerous expeditions by the for-profit group have sought to establish the location and condition of the aircraft. In 1988 subsurface radar returns revealed a distribution of deep targets which matched the aircrafts' distribution as shown in old aerial photographs. Last summer an auger was inserted 260 feet down through a 3 inch steam-drilled shaft and a metal sample was recovered from what should be a B-17. Metallurgists at Boeing have now confirmed that the sample is consistent with that evaluation.

Now that the aircraft have been found, the next problem is how to raise the estimated \$2,000,000 needed to recover them, when their condition after nearly half a century under tons of shifting ice is still entirely speculative. We'll keep in touch, and keep you informed.



ADAPTIVE USE



Havoc Verdict

The NTSB has completed its investigation of the October 1988 crash of the world's last airworthy Douglas A-20 Havoc. Initial inspection by the FAA investigator showed no rotational propellor damage at impact and no fuel to either engine. Fuel mismanagement was the suspected cause of the crash until a TIGHAR inquiry prompted the NTSB to re-examine the case. Evidence of massive coronary failure in the 70 year old pilot is now listed as the principal cause of the loss. NTSB is forwarding the full report to TIGHAR, and we'll be excerpting it here in a future issue.



Project Midnight Ghost



Expedition XVII

As announced in the last issue of TIGHAR Tracks (August 1989), TIGHAR will return to Machias, Maine, November 20 through December 9 for Expedition XVII in the continuing investigation into the fate of l'Oiseau Blanc. This expedition will attempt to pin-point the crash site now suspected to be somewhere on the north face of Second Round Lake Hill in Township 19ED. New eyewitness accounts corroborate the cumulative evidence of previous field work and further clarify the aircraft's course and altitude during the final moments of its 40 hour flight. All TIGHAR members are welcome to participate in the expedition. Volunteers pay their own lodging and meal expenses in Machias and contribute \$100 toward the expedition's general costs. Expect cold, wet weather and remember that it's deer season, so blaze orange is the most stylish color for your woods ensemble. If you'd like to come up and haven't told us yet, you can reach us in Machias, Maine between November 20 and December 9 at 207/255-8800.



Two More Down



TIGHAR's two year study of accidents involving historic aircraft (see TIGHAR Tracks Special Report June 1989) showed that over the past 24 years, crashes have destroyed a very consistent average of two P-51 Mustangs per year. This year's quota was reached in one August weekend with crashes in Texas and California. Details on the West Coast loss are not yet available, but engine failure on take off is the reported cause of the accident at Denton, Texas. TIGHAR has learned from informed sources that investigators found 1.5 gallons of water in the Mustang's fuel tanks. The power loss might have resulted in only minor to moderate damage had the pilot maintained sufficient airspeed in his attempt to return to the airfield. Instead, collision with the ground destroyed the aircraft, killing the pilot and injuring the rear-seat passenger. Investigators expressed the opinion that the crash, severe as it was, would have been survivable for the pilot had not the modification to install the rear seat weakened the cockpit structure.



STRICTLY BUSINESS

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We are still not ready to produce our directory, primarily because our travel schedule has been so hectic since August. Fear not -- it will happen, but I'm not going to predict exactly when. Meanwhile, if you need a partial listing -- for instance, of every member in your state -- call us and we'll run it for you.

Aviation Archeology courses are now scheduled for the winter. Please see the insert for specific information about the courses at the Liberal Air Museum, Liberal, Kansas and the Admiral Nimitz Museum in Fredericksburg, Texas. If you would like to have TIGHAR present a course in your town, please get in touch with us.

If you have ordered anything from TIGHAR (and paid for it) and have not received what you ordered, please get in touch with us ASAP! We want to catch anything that may have been missed in the pre-expedition rush. This does not include those of you who contributed to the Project Midnight Ghost video -- you haven't received that because it hasn't been made because we don't have an ending for the story yet. The documentary film will be made, and your contribution is very carefully filed against that day. As soon as we know when we can make the film, we will notify you and give you an approximate shipping date for your copy. Sorry for the delay, but the aircraft hasn't been as cooperative as it might have been.

TIGHAR (pronounced "tiger") is the acronym for The International Group for Historic Aircraft Recovery, a non-profit foundation dedicated to promoting responsible aviation archeology and historic preservation. TIGHAR's activities include:

- Compiling and verifying reports of rare and historic aircraft surviving in remote areas.
- Conducting investigations and recovery expeditions in cooperation with museums and collections worldwide.
- Serving as a voice for integrity, responsibility, and professionalism in the field of aviation historic preservation.

TIGHAR maintains no collection of its own; neither does it engage in the restoration or buying and selling of artifacts. Instead, the foundation devotes its energies to the saving of endangered historic aircraft wherever they may be found, and to the education of the international public in the need to responsibly preserve the relics of the history of flight.

TIGHAR Tracks, published nine times each year, is the official publication of The International Group for Historic Aircraft Recovery. A subscription to TIGHAR Tracks is included as part of membership in the foundation (minimum donation \$35.00 per year). The editors welcome contributions of written material and artwork. Materials should be addressed to: Editors, TIGHAR Tracks, 1121 Arundel Drive, Wilmington, DE 19808 USA. Telephone 302/994-4410. Photographs and artwork will be returned on request.

Editors: Patricia R. Thrasher and Richard E. Gillespie

MEMBERSHIP FORM

I would like to join TIGHAR. Enclosed is my donation of —

- | | |
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| <input type="checkbox"/> \$35.00 for a one year membership | <input type="checkbox"/> \$60.00 for a two year membership |
| <input type="checkbox"/> \$125.00 for a five year membership | <input type="checkbox"/> \$1,000 for a life membership |

As a member of TIGHAR, I will receive the following benefits:

- Annual subscription to TIGHAR Tracks
- Membership patch, directory and catalog
- Expedition and educational opportunities

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Please return this form with your membership dues to TIGHAR, 1121 Arundel Drive, Wilmington, DE 19808 USA; Telephone 302/994-4410, 9 a.m. to 5 p.m. EST/EDT, M-F. ALL DONATIONS TAX-DEDUCTIBLE WITHIN THE LIMITS OF THE LAW.

