TIGHAR TRACKS

breaking news

This year's expedition to Nikumaroro is on!

TIGHAR has received word from *Nai'a* Cruises in Fiji that enough passengers have been booked to enable them to go forward with the "2003 Phoenix Rising" voyage to the Phoenix Group. A key element of that trip will be TIGHAR's Niku Vp ("p" for preliminary) expedition and it is essential that we raise the needed money to take maximum advantage of this opportunity.

The Plan For Niku Vp

A small TIGHAR team will carry out vital reconnaissance and data collection work needed in our preparations for Niku V, the major archaeologcal expedition planned for next year. The team will, of course, also investigate the artifact seen by a marine biologist during a brief visit to the island in 2002 which, from its description, may be an identifiable component of a Lockheed Electra.

The expedition will depart Lautoka, Fiji on Saturday, May 31, 2003 and is scheduled to return on Monday, June 23. The TIGHAR team will stay in touch via satellite phone and there will be daily coverage of the expedition on the TIGHAR website, just as in the hugely successful 2001 Niku IIII Expedition. A five day, one thousand mile voyage will bring *Nai'a* to the remote Phoenix Group where scientists and divers will spend approximately two weeks conducting underwater and onshore surveys of the reefs and atolls of this remote and pristine region. (Last year's expedition discovered a new species of fish at Nikumaroro.)

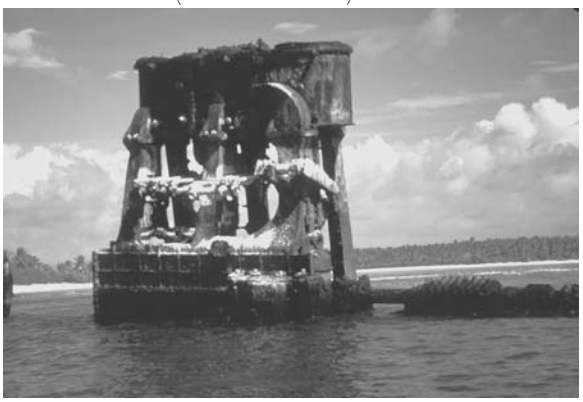
There's Work To Be Done

Several days will be dedicated to work at Nikumaroro where the TIGHAR team will carry out a number of tasks.

The team will examine and, if appropriate, collect the suspicious object seen last year. To protect the artifact from looters we've had to restrict the release of detailed information about just where it is and what we suspect it might be, but once *Nai'a* has sailed we'll open the team's "sealed orders" (in the finest Hollywood tradition) and let everyone in on as much as we know. In our briefings and reports about this and other aspects of this expedition's work at Niku we'll be making reference to the beautiful satellite photo grid map that we produced prior to Niku IIII. If you don't have yours yet, or need another one, just use the enclosed order form or order online at www.tighar.org.

The team will also reconnoiter the "overwash" area on the island's western end. Studies of the natural forces acting upon the atoll, combined with information about where airplane parts have been found in the past, point to this area as a likely repository of more wreckage. We know very little about this part of the island except that its vegetation can vary from sparse to impenetrable depending upon how recently it has been inundated by a major storm. The recon team should be able to get the information we'll need to plan a thorough search of the area.

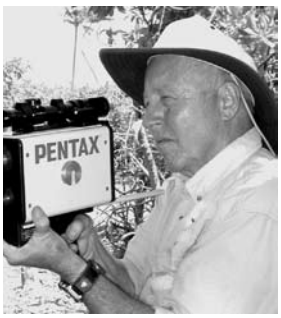
This trip also gives us an opportunity to test and refine the tidal data we've computed for Nikumaroro since the 2001 trip. No tide tables for the island seem to exist, but such information is essential for accurately determining the water level on the reef at crucial times in 1937. Retired naval officer and computer modeling specialist Bob Brandenburg (TIGHAR #2286) has found existing tidal information for Orona (Hull Island) 140 miles to the East and is able to adjust those figures for Niku by using the giant triple-expansion steam engine of S.S. *Norwich City* as a gauge to measure water levels in photos taken at known dates and times. It's a creative approach to a difficult problem and it is yielding impressive results, but to refine his calculations Bob needs good measurements of some specific visible features on the engine itself. The Niku Vp team will get those measurements. If we can find and aquire the right technology, the team will also install an automatic tide measuring and recording device that we'll retrieve when we return next year.



In addition to the work on Niku, this voyage will give us a chance to have a look at some of the other islands of the Phoenix Group that we've never seen. Of special interest will be Manra (Sydney Island) where we know there is surviving wreckage from a 1943 C-47 crash. Comparisons between what survives from that event and the kind of airplane debris we've found on Niku could provide important perspective for our search.

The Niku Vp Team

So far, the TIGHAR team will be made up of three TIGHAR members who are generously paying their own travel expenses.



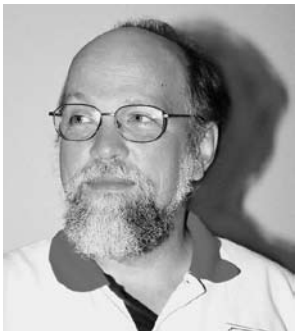
Richard B. "Skeet" Gifford is a retired United Airlines pilot. He is employed by Lockheed Martin as a part-time research consultant at NASA Langley and is co-author of a technical manual on the Flight Management Computers. Skeet serves on TIGHAR's board of directors and is a veteran of Niku IIIIp in 1999 and Niku IIII in 2001.

Richard W. "Walt" Holm is an electrical engineer currently engaged in defense-related research. Walt was a member of our Dive Team on the Niku IIII Expedition in 2001.

Karin B. Sinninger (TIGHAR 2485CE) is an attorney and highly experienced SCUBA diver. Karin obtained her "C" and "E" TIGHAR qualifications at last October's aviation archeology course and field school near Edwards AFB in California.

A major goal of TIGHAR's current fundraising campaign is to be able to send our Dive Team leader on this expedition. Col. Van T. Hunn USAF (ret.) followed his 24 year career as an Air Force pilot with several years as a commercial pilot. He has extensive experience as a sport SCUBA diver with specialized training in underwater search operations. Van has been the Dive Team leader on three expeditions to Nikumaroro: Niku III in 1997; Niku IIIp in 1999; and Niku IIII in 2001. He also been active in archival research of the Frederick J. Goerner papers at the Nimitz Museum in Fredericksburg Texas, and, with TIGHAR's Ric Gillespie, the records of the Phoenix Islands Settlement Scheme in Tarawa, Kiribati. Most recently, Van has been instrumental in finding technical documents pertaining to the Electra component which seems to match the description of the object seen at Nikumaroro.

Fiji Bone Search II



We also have a unique opportunity to continue the work of the 1999 TIGHAR team which began the search to find the castaway's bones brought from Nikumaroro to Fiji in 1941. Strongly suspected by TIGHAR to be the remains of Amelia Earhart, the bones were last known to be stored at the Central Medical School in Suva, Fiji, but our attempts to discover if and where they still exist have, so far, been frustrated If we can raise the needed money, EPAC researcher Martin X. Moleski, SJ, Ph.D. (TIGHAR #2359) will spend six weeks in Fiji pressing the search. As a Jesuit priest, Marty is able to use diocesan accommodations in Suva that greatly reduce the expense of sending him on this mission.

What It Will Take

Our first goal is to raise the $15,000 needed to send Van to Niku and Marty to Suva. Thanks to the growing popularity of the Paradise Now raffle and a special grant request to a major Philadelphia-based foundation by an anonymous TIGHAR member, we're already more than halfway to that goal.

But putting good people like Skeet, Walt, Karin, Van, and Marty in the field doesn't help unless there is a strong and healthy TIGHAR to support them and make use of the information they collect. We need to raise $60,000 to carry us through the period of this important field work, so our total fundraising goal is $75,000. Please use the form on the back page of this newsletter to make your contribution to this important work.

Special Report progress

We obviously didn't get the Special Report issue of *TIGHAR Tracks* done by the end of February as we had hoped. The main reason for the delay is that we're finding that the Post-Loss Radio Signal study is turning out to be a lot more significant than we expected and we want to be very sure we get it right. This could be the most important research document TIGHAR has produced to date (and we'd like to think we've put out some pretty good ones).

In appreciation for your patience, here are a few excerpts from the most current draft as a preview of what you can expect:

Due to the location of the Electra's radio equipment, it was not possible for the transmitter to function if the aircraft was floating in the ocean. If none of the distress calls was authentic, the airplane may still have landed or crashed on an island or reef, but if only one of the alleged distress calls was genuine, the Earhart flight did not go down at sea and must have made a survivable landing at some island.

The alleged radio distress calls drove much of the search for the Earhart plane and yet, when the search ultimately failed, no attempt was made to compile and evaluate the alleged receptions.

Recognizing the need for a comprehensive examination of the phenomenon, we undertook to find and catalog, to the best of our ability, all of the reported radio calls that may have come from the Earhart plane after it disappeared. By collecting the pieces, and then assembling the puzzle, we reasoned that enough of the picture might emerge to permit us, and anyone else, to draw informed conclusions.

The premise behind TIGHAR's study begins with the recognition that it is probably not possible to establish the validity of any single report. After all, how would it be possible to verify that any message actually came from Amelia unless someone could ask her if she sent it? To illustrate this point, imagine what might be considered a best-case "smoking gun" reception. Suppose a government radio operator who was in the search area and was familiar with Earhart's voice, logged an unambiguous identification of a transmission from the airplane long after it could no longer possibly be in flight. Compelling as such an incident might appear (there are two on record), there is still the possibility of fraud either by the sender or by the receiver.

We reasoned, however, that if a significantly large number of reported signals could be compiled and cataloged, patterns, or a lack of patterns, might become evident which would allow a more informed assessment of whether the post-loss signals were a panoply of hoaxes and misunderstandings or whether they included legitimate distress calls from the Earhart plane. You don't solve a jigsaw puzzle by independently scrutinizing every piece. You fit them together and look at the picture they create.

Accordingly, a three-step study was designed:

1. Assemble and compile the available reports of signals.
2. Look for patterns by examining the data from five perspectives.
   - Distribution by time
   - Distribution by geography
   - Distribution by station type
   - Distribution by frequency
   - Distribution by signal type
3. Investigate emergent patterns.

The catalog of reported signals has been completed and the published study will include, as a 24-page appendix, a complete chronological listing of each of the 184 "events." For example, here's what the 66th entry looks like:

Date CPO	Time CPO	Date PoR	Time PoR	Date GMT	Time GMT	Heard by	Location	Type Station	Frequency	Region	Nature of Signal
July 03	22:52	July 03	23:52 HST	July 04	10:22Z	PAA	Mokapu, Oahu	Professional	3105	Band 2	Dashes
66	**Event Description:** "Two long dashes – possibly voice transmissions – on 3105."										
	Source: Pan Am memo from Section Supervisor Ambler, Communications, Honolulu to Division Superintendent Angus, Communications, Alameda dated July 10, 1937. Research CD – RADREST.PDF Record No. 1696										

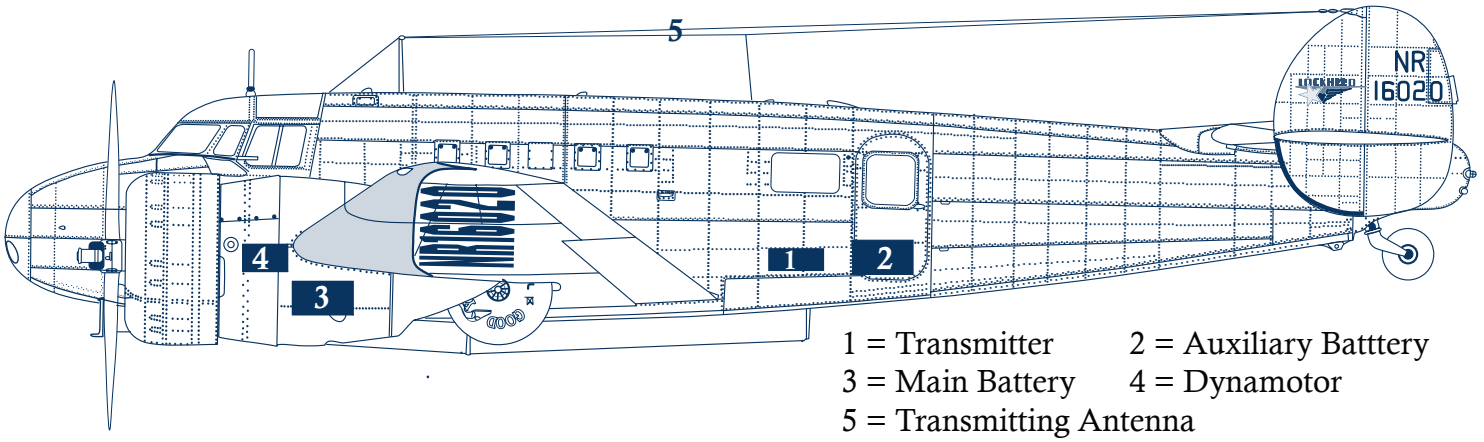
CPO means Central Pacific Ocean, *PoR* means Point of Reception, *GMT* is, of course, Greenwich Mean Time. "Region" refers to the distance of the receiving station from Howland Island in successive one thousand mile "Bands."

The various distribution plots have been completed and a number of distinct patterns have become apparent and will be graphically presented in the published study.

We're currently investigating the patterns to find and assess possible explanations for them. As soon as those studies are completed and written up we'll circulate draft copies of the entire study to members of Earhart Project Advisory Council for review and comment. We'll make any necessary corrections and then we'll publish.

Because the Post-Loss Radio Study has become much larger and more significant than originally envisioned, and rather than delay publication any longer than necessary, we've decided to complete and publish the study of the Electra's range and endurance as a separate and subsequent document.

The subject is technical but the report we're writing and the principles behind it are not. Dead men tell no tales and sunken airplanes send no signals. Hoaxes and misunderstandings there may have been, but with 184 reported receptions you can't fool all of the people all of the time. Once the documented facts are laid out, the question answers itself. We think you'll find the Post Loss Radio Study worth the wait.



1 = Transmitter 2 = Auxiliary Batttery
3 = Main Battery 4 = Dynamotor
5 = Transmitting Antenna

Due to the location of the Electra's radio equipment, it was not possible for the Earhart aircraft to send radio signals if the aircraft was floating in the ocean. The transmitter (1) was located on the floor in the back of the cabin and might have remained dry if the airplane was floating nose-down, as it almost certainly would. The auxiliary battery (2) nearby might provide current even if the main battery (3), located under the floor farther forward, was submerged. However, before electrical power from either battery could be used by the transmitter, the voltage had to be boosted by a dynamotor (4) that was situated under the pilot's seat. That essential component would be submerged and useless unless the airplane was floating upside down, in which case the transmitting antenna (5) would be underwater.

Niku Vp: Phoenix Rising
Goal: $75,000
Deadline: June 30, 2003

Here's how you can help:

✓	**DONATE** to the Project using the form below.
✓	**DONATE** using our secure on-line credit card web page at https://www.tighar.org/cardform.html.
✓	**BUY** a NIKU V t-shirt or other Stuff, either using the form below or ordering on line at http://www.tighar.org/TIGHAR_store/tigharstore.html.
✓	**BUY** a grid map using the form below or on line: https://www.tighar.org/TIGHAR_store/order.html.
✓	**PARTICIPATE** in the Paradise Now Raffle: http://www.tighar.org/raffle/harbor.html

Yes, I will help support the Niku Vp Fund Drive. I enclose:

☐ **$25** ☐ **$50** ☐ **$100**

☐ **$250** ☐ **$500** ☐ **$1,000** ☐ **other_____**

$25: **Donation only, no Stuff** _____ **Gridmap** _____ **Earhart Project T-shirt*** _____
Niku V T-shirt* _____ (*M, L, XXL, XXXL) **One Raffle Chance** _____

$50: **Donation only, no Stuff** _____ **Two of any of the $25 Stuff** _____

$100: **Donation only, no Stuff** _____ **Five Raffle Chances** _____

More: **Please write in what, if anything, you'd like from the above Stuff.**

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Visa or Mastercard #: _____ **Expiration date:** _____

Signature: _____

Niku Vp Donations are fully tax-deductible. Please make checks out to TIGHAR.

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