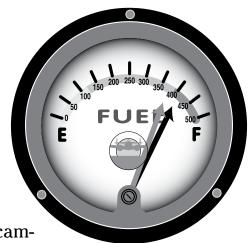
## TIGHAR TRACKS



December 2000

## Expedition Expanded

Total Pledges, December 15, 2000 Total Cash in Hand, December 15, 2000 \$350,000 \$124,015



TIGHAR member response to the Niku IIII funding campaign continues to be strong and our fuel needles keep climb-

ing toward our goal. This enthusiastic support has enabled us to add another nine days to our ship charter thus giving the expedition a full three weeks (21 days) on the island. Funding and scheduling constraints have limited most of our previous trips to ten days or less of actual search time, so this is a really significant boost to Niku IIII's capabilities. We're grateful to the folks at *Nai'a* Cruises for juggling their other charters to make more time for TIGHAR, and to you, the TIGHAR members, for showing us that the funding support is there to enable us to make this much-needed but expensive (about \$46,000) adjustment to next year's operation. At this time it looks like we'll be on site at Nikumaroro from August 30 to September 19, 2001.

#### Betty's Notebook - Update

Research into what appears to be a surviving real-time transcription of distress calls from Amelia Earhart (see "The Girl Who Heard Amelia" in the November 2000 TIGHAR Tracks) has prompted a detailed reexamination of all of the alleged post-loss radio transmissions from the lost plane. Over a hundred documented occurrences are being logged in a standardized format, adjusted to Greenwich Mean Time, and plotted on time lines to obtain an accurate picture of what events were happening concurrently and what patterns, if any, are discernible. We hope to have the initial results ready for the next (January 2001) issue of TIGHAR Tracks.

### Not-So-Happy Trails

It is as true as it is obvious that in order to find what you're looking for, you have to be looking in the right place. One of the main targets of the Niku IIII expedition is the area on the island's southeastern end we call the "Seven Site" (after a natural coral feature that looks like the numeral "7" in aerial photos). This is the same location discussed in detail as "The 1996 Site" in "Gallagher's Clues" (TIGHAR Tracks Vol. 15, 1999, pp. 42-50). We think that this spot on the island is where the bones and campsite of a castaway were found in 1940 – a castaway whom we have reason to suspect was Amelia Earhart (see "Amelia Earhart's Bones and Shoes," TIGHAR Tracks Vol. 14, No. 2).

As explained in "Gallagher's Clues," there is abundant evidence to suggest that there was significant activity in that area during the time period when Gallagher was carrying out an organized search for more bones and artifacts, but is there any sign that someone was there before the island was officially inhabited? Yes. There is photographic evidence that one or more human beings were active at that location prior to the arrival of the first settlers on December 20, 1938. Marks on the ground at the Seven Site, visible in an aerial photograph taken on December 1, 1938, are identical in appearance to known trails or footpaths appearing in later aerial photos. The apparent footpaths in the 1938 photo appear in a location we suspect as being the site of the castaway's campsite where human remains were found in 1940.

# Footpaths on Nikumaroro

Much of the island's surface is covered with material known as "coral rubble." This is finger-sized pieces of dead coral which are characteristically medium or dark gray in color on surfaces exposed to the intense equatorial sun and somewhat lighter gray or even white on shaded surfaces.

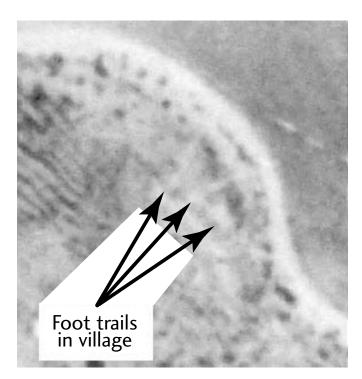
The photo at right shows an undisturbed coral rubble surface. When people walk across coral rubble following the same route, time after time, a light-colored path quickly develops. People are the only animals on Nikumaroro large enough to leave a visible trail.



The photo at right is a low-level aerial shot which was taken along Nikumaroro's southern shoreline in 1975 and clearly shows a footpath across coral rubble heading inland from the beach. The wider straight track running parallel to the beach is a vehicle track used by the U.S. Coast Guard during WWII.

Below left is a detail from an aerial photo taken from a much greater altitude (8,000 ft.) on April 30, 1939. It shows wide footpaths associated with the newly established village. Note that they start from a central location inland and fan out toward different places along the shoreline.

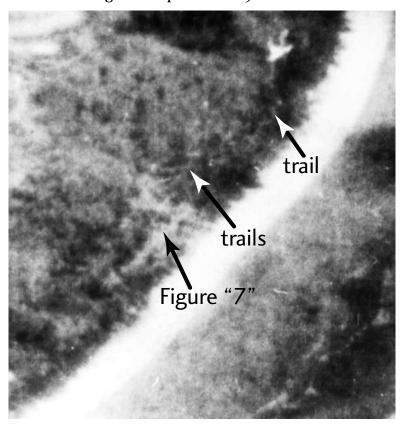




Below right is a photo which was taken from the starboard cockpit window of a Supermarine Walrus launched from HMS *Leander* on December 1, 1938 (the starboard wing tip with navigation light and the tip of the starboard wing float with mooring ring are visible at upper right). The hand-drawn arrows indicate features of interest at the far end of the island – the shipwreck, the main lagoon passage, etc.



This is a detail from the photo above which has been enhanced by Photek, Inc. of Hood River, Oregon. Note the naturally occurring open avenues of coral rubble which form a figure "7." That feature is still present today. (The first photo shown in this newsletter was taken in 1996 looking seaward along the "top" of the 7.)



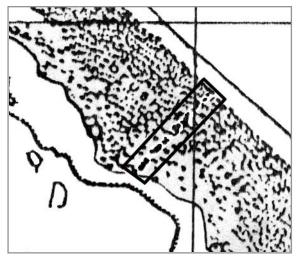
Of particular interest is what appears to be a network of trails or footpaths associated with the top of the 7 and a single winding path leading to a large white open area farther up the shoreline. Although vaguely airplane shaped, detailed inspection reveals that the white feature is not an airplane. It seems to be just a T-shaped sandy area.

It is worth noting that we are not the first to notice "trails" on this part of the island. When the U.S. Navy prepared a map of Gardner Island from the aerial photo mosaic taken on April 30, 1939 and the results of the surface survey made by USS *Bushnell* in November 1939, the map maker noted the presence of an "old trail" between the lagoon and the ocean at a location about one kilometer northwest of the "7." The feature can be seen in the 1939 aerial mosaic and in the 1938 photo.

It is, of course, possible that the features which resemble trails are some naturally occurring phenomenon that we do not at present understand, but if they are evidence of human activity the implication is that someone was active on a remote section of the island in the years immediately prior to 1938. Exactly why that particular part of the atoll might be attractive to a castaway is hard to say. It was, and is, dominated by a forest of tall, shady buka trees (*Pisonia grandis*) which are home to a rich assortment of sea birds. The ocean shore near the "7" is unusually free of the dense protective wall of underbrush that characterizes most of the coastline and so might provide a good view of the northern horizon for someone hoping for rescue. The

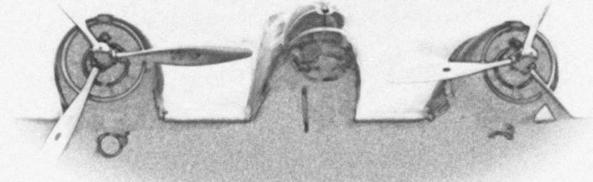
area is far from the only stands of coconut palms that were present on the island in those pre-settlement years but the drought conditions which prevailed throughout much of 1938 may have rendered those trees useless as a source of sustenance.

In any event, this part of the atoll clearly merits further attention.









We took off from Tonopah, Nevada at 1145, January 29, 1943. We climbed through an overcast to 9,000 feet and on top of the overcast for approximately one-half hour, then flew between two layers of overcast.

~Excerpt from "Report On Crash B-23 #9052" by copilot James V. Kelly, 2nd Lt., Army Air Corps.

This past July, 20 TIGHARs spent a week learning about, and putting into practical application, the principles and techniques of aviation archaeology. This was the first time that TIGHAR had offered our popular Introductory Course in Aviation Archaeology and Historic Preservation immediately followed by a Training Expedition to an actual historic crash site. The faculty was made up of TIGHAR's executive director Ric Gillespie and archaeologist Tim Smith (TIGHAR #1142CE). Bill Carter (TIGHAR #1722CE) provided invaluable local logistical management while expedition veteran John Clauss (TIGHAR #0142CE) kept the field operation running smoothly.

Started to encounter icing conditions. In a short while we lost our radio receiver and tried to climb above overcast. Icing became pretty severe and we were [able] to obtain only 18,000 feet, which did not put us above the overcast except at rare intervals. It became evident that we were unable to maintain that altitude. Spotted a hole off to our left which we went down through.

~Excerpt from "Report On Crash B-23 #9052" by pilot Robert R. Orr, 1st Lt., Army Air Corps.



After two days of classroom work in Boise, Idaho the students convoyed in two large vans to a trail head in the Payette National Forest where they began the five mile hike to a campsite prepared by a professional outfitter near Loon Lake. About half a mile from the camp was the wreck of Douglas B-23 "Dragon" serial number 39-052.

After we lost our altitude we noticed we were flying over a

Roughing it at Café Loon Lake. Photo courtesy Nancy Ballenger, TIGHAR #2315CE.

town.... We circled for fifteen minutes looking for a field to make an emergency landing, but we could not due to a blinding snowstorm.

~ copilot Kelly

Summer in the high country... our campsite was situated beside a clear mountain stream that fed the lake where moose waded lazily in the early morning mist. Deer carelessly meandered through camp and the surrounding hills often echoed back the brays of the outfitter's mules.

The snow was so blinding it was unsafe to continue at low altitude. So we started climbing and icing.... Continued flying northeast in hope we would break out of the storm area. Unable to do so. Climbed to 19,600 feet and managed to climb above snowstorm, but continued to have light icing. Became impossible to maintain altitude and started to lose altitude. Gave order for men to put on parachutes and prepare to leave plane.



Possible new Earhart Project team member? TIGHAR photo by R. Gillespie.

~pilot Orr

Our first day "on the airplane" was spent gridding off the site and beginning the mapping process under Tim Smith's direction. What at first had looked like a jumble of wreckage soon began to resolve into a coherent image of frozen violence.



Frozen violence. TIGHAR photo by R. Gillespie.

To our surprise we discovered that the trees that had been sheared off by the careening bomber 57 years ago still stood among the newer growth. Accordioned wings and scattered control surfaces traced a trail from the shoreline through the woods to the battered but largely intact fuselage.

Horizontal tail surfaces and wings outboard of the engines were shorn from the fuselage, absorbing most of the impact as the aircraft came down through the trees. TIGHAR photo by R. Gillespie. Someone then spotted a hole in the ceiling and a clearing which turned out to be a lake completely encircled by mountains and trees. Lt. Orr then ordered us to take off chutes and prepare for a crash landing. ... The ceiling was getting lower all the time and the right engine had caught fire.

~copilot Kelly



Made one circle over the lake, below the level of the hills surrounding and decided to attempt landing on the lake which was rapidly closing in. Still unable to get the flaps to operate. Made one pass at the lake, but due to the fact that the flaps would not go down, overshot; managed to make another circle as low as possible. Still unable to get flaps to operate. So was unable to set down in the small area of the lake. Cut switches and mushed into the tops of trees at the south end of the lake which bent before snapping, easing us down but stripping wings from plane outside of engine nacelles. Plane came to stop 50 yards from edge of lake. Fuselage intact except for bombardier's compartment which was completely demolished. Climbed out of plane, administered first aid, and prepared for our stay.

~pilot Orr

Everyone was much moved by the feeling of authenticity and immediacy conveyed by the crash site, but that first night, while we sat around the campfire reliving the day, we came to the realization that something was wrong. We had all seen photos of the wreck taken the year before by Craig Fuller (TIGHAR #1589C) of Aviation Archaeological Investigation & Research (AAIR) and we knew that the aircraft had been subject to some vandalism and looting over the years, but the airplane we had just examined was missing some parts-big parts and lots of them-that had been present a year before.



In this photo, taken a year before, the fuselage was still intact. Compare with previous photos, in which large sections have been cut out, including the cabin door, gunner's windows, a substantial portion of the belly and a complete bulkhead assembly, thus destroying the structural integrity of the fuselage. Photo courtesy Bill Carter, TIGHAR #2313CE.

Crew was all intact.

The only injuries at the time was that of Pilot Orr who had cut his hand, S/Sgt Hoover cut his leg and hand. Men proceeded away from plane, a fire was started in a low clearing where there was not much snow.

~passenger Cpl. Earl J. Beaudry

The next day we took a close look at the recent damage. Not only were major portions of the structure missing, but whoever had removed them had done so with power tools and surgical expertise. In coordinating our proposed expedition with the local office of the National Forest Service no one had said anything about a salvage operation, especially one so recent that little piles of aluminum shavings still lay undisturbed where great chunks were cut from the fuselage. When we concluded our survey of the site and headed back to civilization a few days later it was with a determination to find out who had done this.

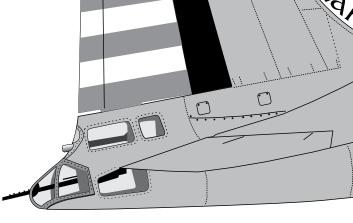


The TIGHAR Loon Lake Archaeological Survey Team. L to R., front row: Rick Jali #1875CE, Skeet Gifford #0001CEB, Exec. Dir. Ric Gillespie, Nancy Ballenger #2315CE, Megan Fisher #2339CE, Kenton Spading #1382CE. Middle row: Tom Roberts #1956CE, Maria Magers #2196CE, Fred Spading #1383CE, Nick Murray #2356CE, John Humphreys #0206CE, Bill Carter #2313CE, Veryl Fenlason #0053CE, Margot Still #2332CE, Tim Smith #1142CE, Lee Kruczkowski #1821CE, Walt Holm #0980CE. Back row; Roger Kelley #2112CE, Andrew McKenna #1045CE. Not shown (taking photo) John Clauss #0142CE. TIGHAR photo.

Next month, in Part 2 of this report, we'll learn what happened to the eight-man crew of #9052 after their miraculously safe arrival in the middle of a wintry nowhere and we'll track down who it was that cut up one of the most intact surviving World War II crash sites in the United States-and why. Special thanks to Margot Still (TIGHAR #2332CE) and Craig Fuller (TIGHAR #1589C) for their excellent historical research on B-23 #39-052 and to Pat McGinnis at Boeing for her assistance in obtaining historical photos of the B-23 airplane. Special thanks also to Bill Carter (TIGHAR

#2313CE) for his outstanding organization of Idaho logistics for the course and expedition; to archaeologist Tim Smith (TIGHAR #1142CE) for his expertise and guidance; and to John Clauss (TIGHAR #0142CE) for his solid support in the field (as usual).

Yes, there will be another Aviation Archaeology Course and Training Expedition next summer, in late June. Watch for dates, details and registration information in next month's TIGHAR Tracks.



Aviation Archaeological Survey Loon Lake, Payerre Nazional Forest, Idaho July 10 - 13, 2000