TIGHAR TRACKS

A Publication of The International Group for Historic Aircraft Recovery
TIGHAR · 2812 Fawkes Drive · Wilmington, DE 19808 · USA · www.tighar.org

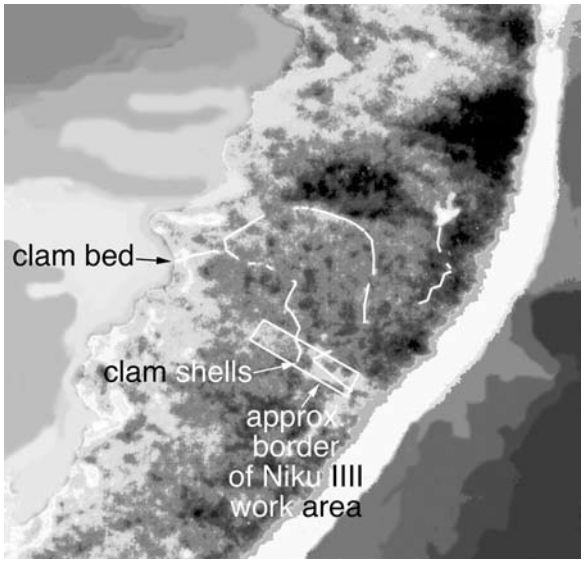
Voume 18, #3 April 2002

Seven Site Research Report

SINCE OUR RETURN FROM THE NIKU IIII expedition last September, the dozens of man-made and natural objects we recovered from the Seven Site have been, and continue to be, the object of intense scrutiny in our attempt to piece together what happened at that remote and forgotten place. Scientists and experts from Hawaii to England have been examining, measuring, categorizing, and identifying bits and pieces of metal, glass, bone, shell, wood, and even charcoal to help us accurately reconstruct what happened there. Meanwhile, we've been scouring the historical record for documentary evidence.

The Seven Site was the scene of a series of events of uncertain number occurring over an only vaguely definable period of time. Each event left behind its own debris and we must sort out which pieces belong to which puzzle. Just as the pioneering 19th century archaeologist Heinrich Schliemann had to dig through the rubble of later cities in his search for the Troy of Homeric legend, so we must try to discover which, if any, of our recoveries are associated with the object of our quest: the Gardner Island castaway who may have been Amelia Earhart. Our task is complicated by the very short span of time over which the events took place – decades rather than centuries – and the lack of any meaningful stratigraphy (layering) in the coral rubble and rotting vegetable matter that passes for soil on Nikumaroro. It is also worth remembering that ol' Heinrich identified the wrong Trojan layer as dating from the time of Agamemnon, Hector and Achilles.

The events at the Seven Site for which we have at least some evidence are:



Event: Castaway's Campsite

Time: circa 1938

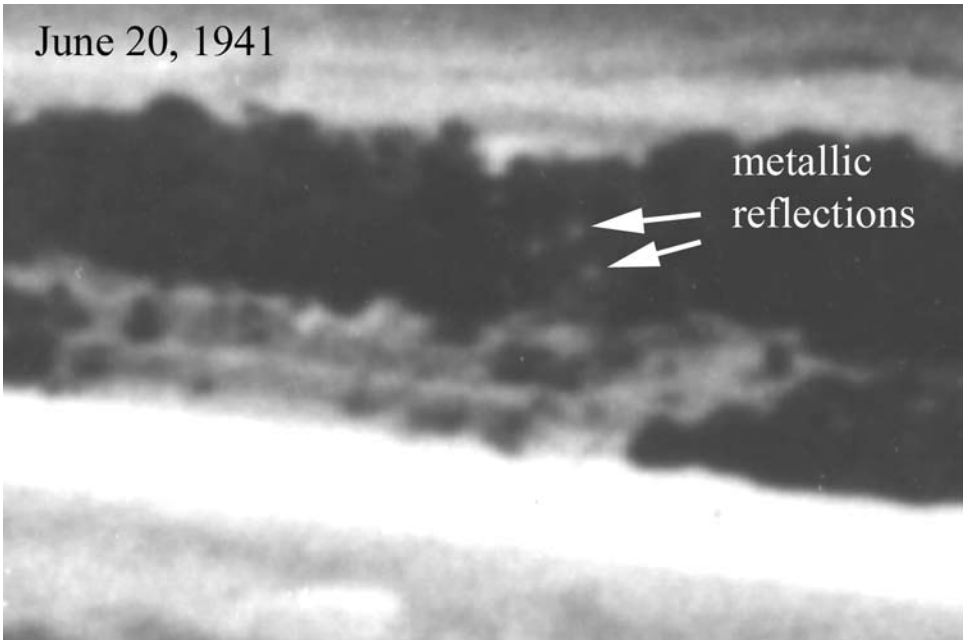
Evidence: An aerial photo taken December 1, 1938 shows what appear to be man-made trails connecting a place on the lagoon shore where we found the remains of an old clam bed with the Seven Site where we found two deposits of clam shells. The site also fits Gallagher's general description of the place where the castaway's bones were found in 1940, including the presence of "dead birds, turtle and fire."

Event: Gallagher's Search

Time: September to mid-November 1940

Evidence: Sometime around late April 1940, laborers found and buried a skull. Gallagher arrived in September and, hearing of the incident, conducted an initial investigation which turned up a castaway's bones, a few artifacts, and an apparent campsite. On September 23rd he reported the discovery, and his suspicion that he had found Amelia Earhart, in a telegram to his immediate superior, the Resident Commissioner of the Gilbert & Ellice Islands Colony on Ocean Island. The RC quickly passed the news to British colonial headquarters in Fiji and there followed an exchange of questions and answers directly between Gallagher and senior officials. On October 17 Gallagher told his superiors that an organized search of the area would take several weeks "as crabs move considerable distances and this part of island is not yet cleared." On October 26, 1940, he received orders to conduct the organized search. In a later routine report Gallagher wrote that stormy weather prevailed from mid-November through the end of the year and "properly organized work at any distance from the village was impossible." It would seem, therefore, that Gallagher's "organized search" for more bones probably took place roughly between October 27th and November 15th.

An aerial photograph taken on June 20, 1941 shows significant clearing of beachfront vegetation at the Seven Site and what appear to be reflections off metal seen through the trees further inland. The reflections seem to correspond to the location of very rusty remnants of corrugated metal sheeting found by TIGHAR and may indicate that a structure of some kind was erected either to provide shelter or as a rain collection surface draining into a nearby barrel (the remains of which were also found) or both.



This aerial photo shows the clearing and metallic reflections which appear to correspond to remains of corrugated metal sheeting found by TIGHAR.

Event: Planting Operations

Time: 1941

Evidence: In a letter to his superiors dated December 27, 1940 Gallagher reported the completion of the organized search and added, "[It] is possible that something may come to hand during the course of the next few months when the area in question will be again thoroughly examined during the course of planting operations, which will involve a certain amount of digging in the vicinity." During the Niku IIII expedition we noted several small depressions and piles of accompanying backfill in the coral rubble just inland from the lagoon shore at the Seven Site. Metal detector sweeps of the area found small flecks of rusted iron near some of the depressions. A document found in the Kiribati National Archives in Tarawa entitled "Recommendations Made to the Overseer, Gardner Island, Regarding Plantation work. 12th November 1947" describes how to transplant coconut trees.

Transplanting

Holes should be dug at least a week before transplanting takes place. They should be about 2 ft. deep. When the germinating nuts are transplanted to them from the nurseries a mixture of soil, rotting leaves ("mange"), and bits of iron should be put in the holes covering the nuts by about 2 inches. As the sapling grows the holes should be "fed" with "mange" (at intervals of about 2 months) but the hole should not be filled in to ground level until the sapling has grown to about 6 or 8 feet tall. The purpose of keeping the level of the soil around the sapling below surface level is to prevent the drying out of the soil on which the sapling is living.

Event: Coast Guard Target Practice

Time: July 1944 through May 1946

Evidence: Twenty .30 cal. U.S. military shell casings were recovered from the Seven Site along with several shards of broken white stoneware plates, one of which included a U.S. Coast Guard logo. Also recovered were broken internal components from large vacuum tubes of a type that may have been used in the Coast Guard Loran transmitter. Coast Guard veteran Glen Geisinger tells of a site on the island's northwest shore where there was a metal tank used by the villagers to collect water. One of his buddies put a bullet through the tank and had to patch it. The metal tank at the Seven Site has what appear to be two bullet holes that have been sealed by the insertion of large machine screws and washers. Is this the repair, and therefore the same tank, described by Mr. Geisinger? During the Niku IIII expedition the repaired sections of the tank were removed and are currently being analyzed.

The water tank at the Seven Site showing the repaired areas cut out by TIGHAR for analysis.

Event: Visit by Paul Laxton

Time: Early 1949

Evidence: Laxton was a British administrator who spent several months on the island in 1949. In an article entitled "Nikumaroro" that he wrote for the *Journal of the Polynesian Society* he described a tour of the island. After passing the deactivated and secured Coast Guard Loran station at the southern tip, Laxton writes:

> *Turning the tip to return along the northern rim, narrow, thundering with surf driven by the north-east trade winds, the path ends in a house built for Gallagher on a strip of land cleared from lagoon to ocean beach so that the fresh winds blow easily through. Beyond this there is no path, save along the steeply sloping, sandy ocean beach.*

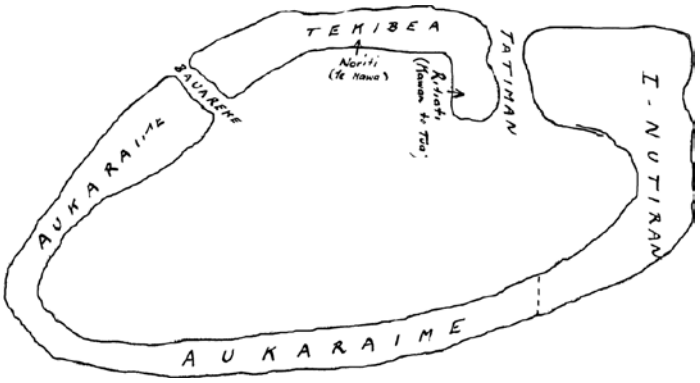
This passage has tormented us. A house built for Gallagher? Gallagher makes no mention of a house at that end of the island in any of his reports or correspondence. Gallagher died in 1941 and the Coast Guard didn't get there until 1944, but none of the Coast Guard veterans remembers a house. Materials found at the Seven Site do suggest that there was some kind of structure there at some time and, as noted above, the 1941 aerial photo suggests the presence of shiny metal. It could be that Laxton's "house built for Gallagher" was nothing more than a water collection awning built at Gallagher's direction to serve the needs of the laborers who were conducting the search for the bones. The strip of land cleared from lagoon to ocean beach was probably the result of the bone search and the later planting operation, but if it was still largely clear of vegetation three years later, somebody was maintaining it. It's possible that the corrugated metal awning had collapsed by the time the Coasties were there three years later. If so, then Laxton is describing wreckage in the bush. Or was the structure rebuilt after the war? And if so, why?

Clues From Maps

Several handrawn maps of Nikumaroro with land allocations marked by British administrators were found during TIGHAR's research trip to Tarawa in March 2001. These maps provide a graphic history of the colony's development and present some clues about how the Seven Site was regarded.

March 1941

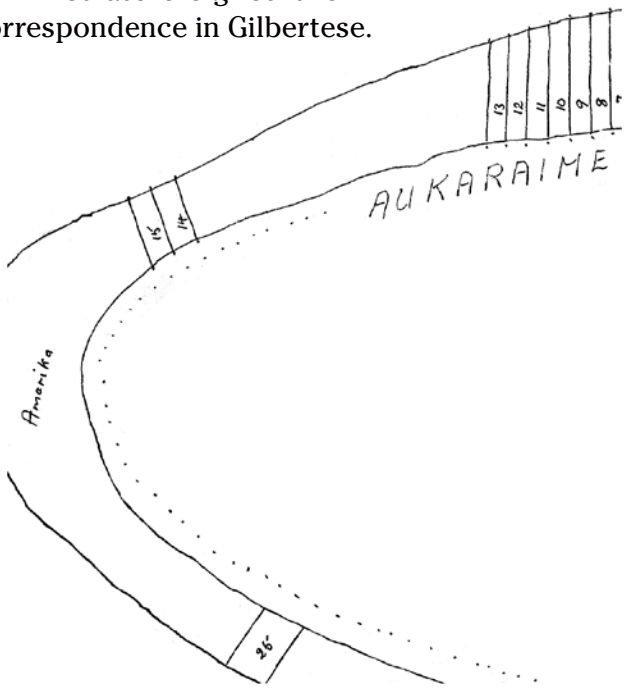
The earliest administrative map we have found is a rough sketch drawn by Gallagher on or about March 23, 1941. The island is divided into four districts. No demarcation is shown at the Seven Site. There is also a detailed survey map drawn by Gallagher on March 19, 1941 of the area just east of Bauareke Passage showing land demarcations and the families to which they are allotted. The same June 20, 1941 aerial photo that shows clearing operations at the Seven Site show extensive clearing in this area. However, no survey map of the Seven Site was in the file.



Gallagher's rough sketch map showing the basic district demarcations on Nikumaroro.

Sometime Between 1943 and 1954

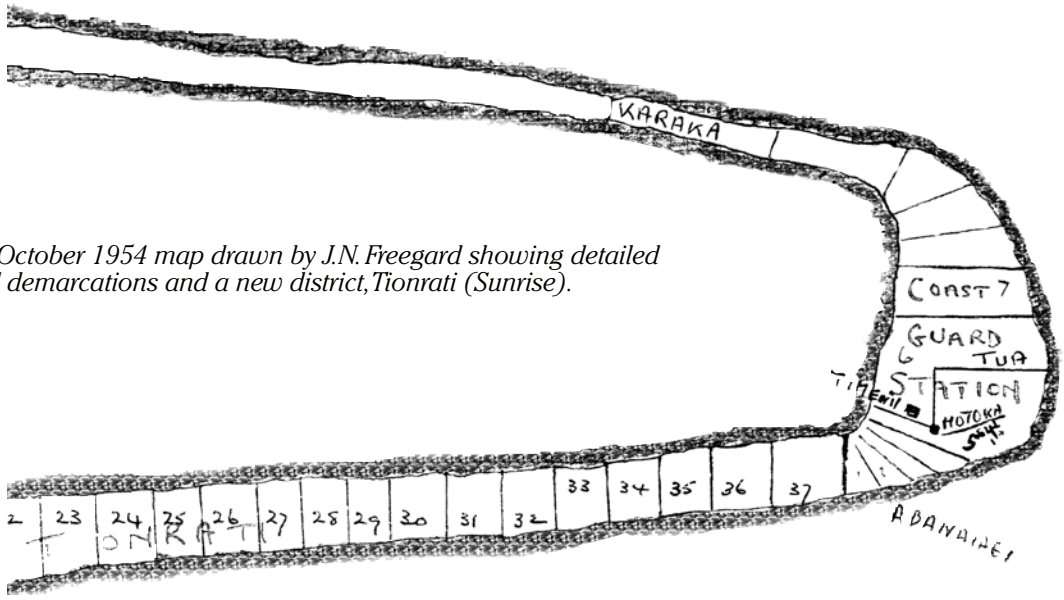
A frustratingly unsigned and undated sketch of the island shows expanded land demarcations near Bauareke Passage, although the family allocations do not match Gallagher's earlier survey map. The notation "Amerika" at the southeast tip indicates that the map was drawn sometime after the 1943 selection of that location by the U.S. Coast Guard. This sketch, which was made at least two years after Gallagher's death, is the first map to show a delineated parcel of land at the Seven Site. It is the only demarcated strip of land on the entire northern shore and it is designated "Komitina" (Commissioner), which is how Gallagher and other administrators signed their correspondence in Gilbertese.



Undated sketch map showing the early land divisions on Nikumaroro. Land parcel 25 is the Seven Site.

October 1954

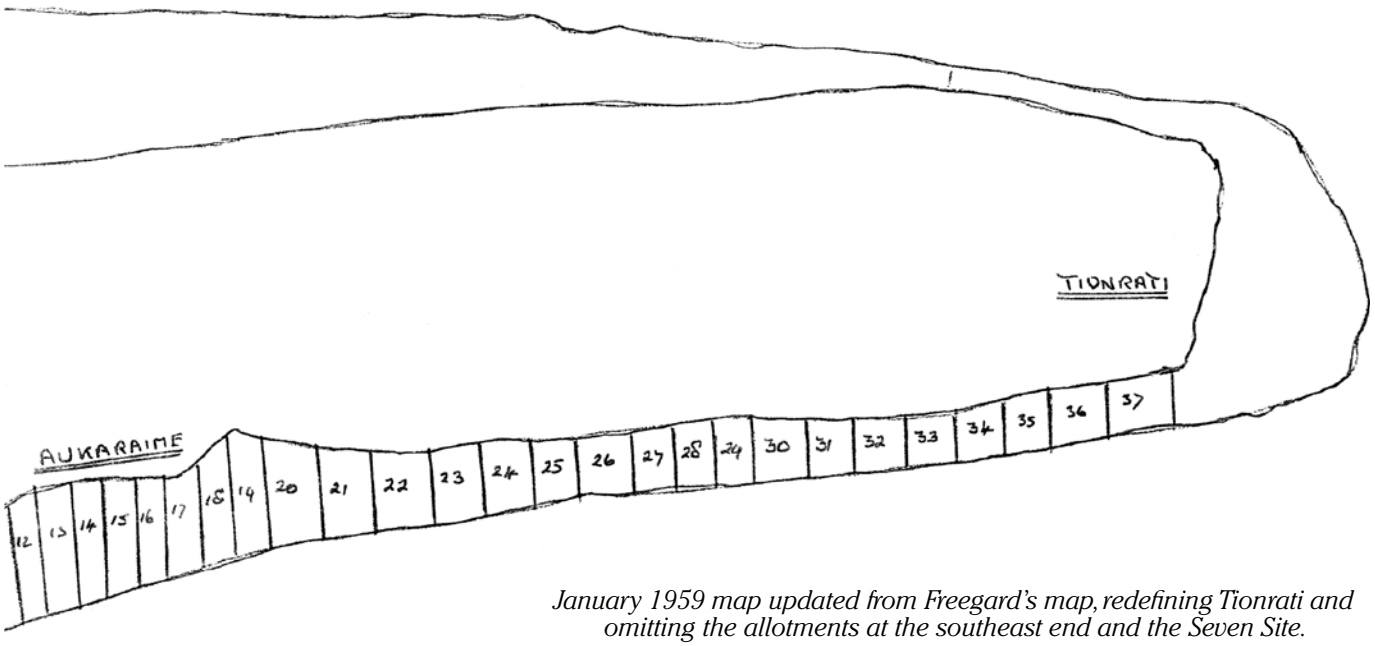
Next we have two basically identical and fairly accurate maps of the island drawn by District Officer J.N. Freegard on October 15, 1954. They differ only in that one map shows many more land demarcations and allotments than does the other. The apparently earlier map shows land demarcations ending on the southern shore of Aukeraime at the boundary of the "Coast Guard Station" (which had been deactivated in 1946). The second map shows the establishment of a new island district named "Tionrati" (Sunrise) that incorporated the eastern end of Aukeraime and extended through the former Coast Guard Station. Land demarcations were made right around the southern tip and up the north shore as far as the Seven Site which, on this map, is labeled "Karaka" (Gallagher). It is important to note that there is no indication that these "lots" were cleared or developed. Official correspondence shows that at this time there was great concern that many of the island's children were approaching marriageable age and would soon need their own land.



The second October 1954 map drawn by J.N. Freegard showing detailed land demarcations and a new district, Tionrati (Sunrise).

January 1959

The last administrative map was drawn by District Officer P.B Laxton (the same Paul Laxton who noted the "house built for Gallagher" in 1949) on January 10, 1959. Specifically updated from Freegard's 1954 map, this sketch redefines Tionrati as encompassing only the southeast tip and omits any land allotments there. The demarcation of the Seven Site also disappears. This reduction of allotted land at the southeast end was made in the face of greatly increased pressure to find room for more people due to proposed immigration from the other two settled islands in the Phoenix Group (Sydney and Hull). Many new lots were demarcated on other parts of the island and we can only assume that the land at the southeast end had been found to be unsuitable for development.



January 1959 map updated from Freegard's map, redefining Tionrati and omitting the allotments at the southeast end and the Seven Site.

Hypotheses

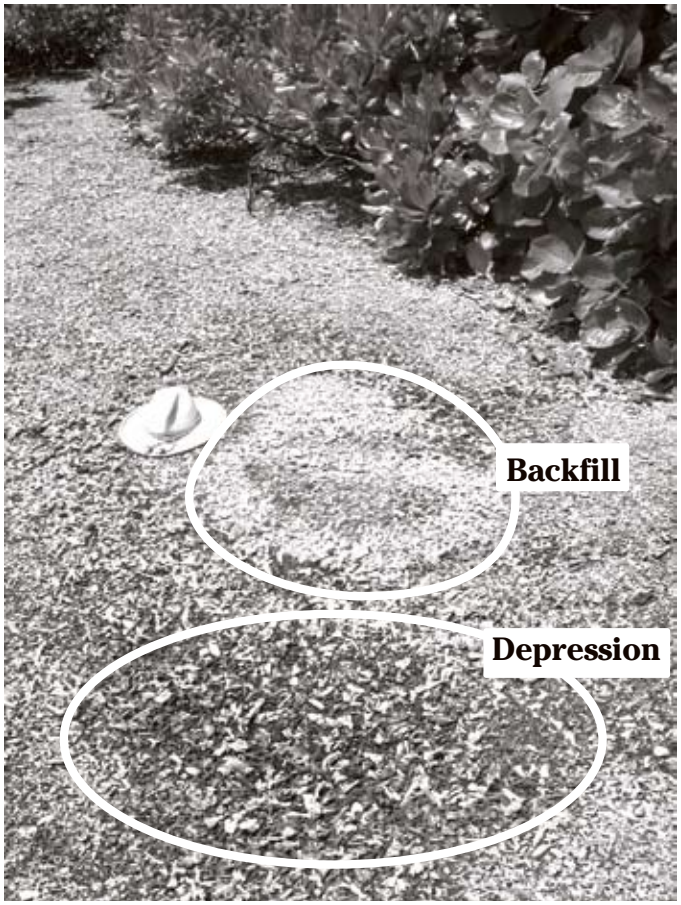
The available evidence suggests that the Seven Site was where the bones and campsite of a castaway were discovered in 1940 and that a fairly exhaustive search, involving the clearing of a substantial amount of beachfront vegetation (supported by a temporary rainwater collection and storage system) was conducted in the fall of that year. The area just inland from the lagoon shore appears to have been the site of an experimental coconut planting operation, carried out probably in the spring or summer of 1941

The site was known to later administrators and attributed directly to Gallagher on maps delineating land holdings for coconut agriculture until at least 1954. Periodic maintenance of the plantings ("feeding" the saplings with "mange") could account for the cleared vegetation reported by Laxton in 1949. By 1959 not only was the demarcation of land at the Seven Site dropped from the maps but other previously delineated lands at the extreme southeast end of the island were removed. One explanation might be that by that time the experimental plantings at the Seven Site had failed and the hope of developing those lands abandoned.

An Answer to the Mystery of the G Feature?

The deliberate pattern of small white pieces of coral we call "the G feature" (see "Mysteries of the Seven Site," *TIGHAR Tracks* Nov. 2001) is on top of the backfill from what we now suspect was a coconut transplant hole. It would seem, therefore, that the G feature itself is not associated with the castaway and may be associated with the experimental 1941 coconut planting operation. Maybe it is, in fact, a G and maybe it stands for Gallagher or Government.

Next month we'll review what has been learned to date about the objects we've recovered from the Seven Site, how they may fit in this multi-layered jigsaw puzzle, and which of the artifacts may provide clues to the identity of the castaway.



The "G" feature and a possible explanation.

TIGHAR'S 2002 AVIATION ARCHÆOLOGY COURSE & FIELD SCHOOL

TIGHAR has been engaged by the U.S. Government Bureau of Land Management (BLM) to conduct an archaeological survey of the site of the 1948 crash of the Northrop YB-49 Flying Wing that killed Capt. Glen W. Edwards, for whom Edwards Air Force Base is named. This year's Introductory Course in Aviation Archæology and Historic Preservation and the Training Expedition will focus on that site.

Dates:

Saturday, October 5 through Wednesday, October 9

Location:

Aviation Archæology Course: Marriot Courtyard Hotel, Palmdale, CA
Training Expedition: YB-49 crash site, Boron, CA

Itinerary

Friday, October 4	Registrants arrive and check in at hotel. Transportation will be provided from LAX.
Saturday, October 5	Welcome breakfast and classroom work at hotel 9 a.m. to 5 p.m. Catered lunch.
Sunday, October 6	Classroom work at hotel 9 a.m. to 5 p.m. Catered lunch.
Monday, October 7	Field work. Overnight in the field.
Tuesday, October 8	Field work. Overnight in the field.
Wednesday, October 9	Return to hotel in a.m., tour USAF Flight Test Center Museum, Edwards AFB in p.m., farewell dinner at hotel in evening
Thursday, October 10	Transportation will be provided back to LAX.

Instructors

Richard Gillespie, Executive Director, TIGHAR
Roger Kelley, Senior Field Researcher
Special Guest Lecturer, Garry Pape, author of *Northrop Flying Wings* (Schiffer Publishing, 1995).

Certifications

Everyone who completes the Course and Expedition will receive the "C" and "E" certifications to their TIGHAR member number. These certifications are prerequisites for any TIGHAR member wishing to be considered for the Niku V expedition team.

Tuition

$1,500

$500 payable with registration, $1000 payable by September 15.

Includes:

» All course materials including a copy of the 103 page official Air Force Crash Report and a copy of *Northrop Flying Wings* by Garry Pape and John Campbell. This is a gorgeous, profusely illustrated 288 page history of the revolutionary Northrop aircraft.
» Transportation from and to Los Angeles International Airport (LAX).
» Hotel accommodations for the nights of October 4,5,6, and 9.
» Lunch on October 5 & 6 and all meals in the field.
» Transportation during the field school.

Caveats

We'll be working and camping for two days and two nights in the high desert. It can be very hot during the day and quite chilly at night. You'll need to bring your own sleeping bag. A tent is optional (it probably ain't gonna rain). This will be no-frills camping. Meals will be delicious MREs (military Meal, Ready to Eat). There will be no need to hike to the camp site but the survey work could involve considerable exploration for scattered aircraft components (the aircraft broke up in flight). You'll be sharing the desert with its customary residents, including rattlesnakes and scorpions. Everyone will receive expert instruction about what and what not to do in this environment. We'll have emergency medical personnel on call and possibly right there with us. This is not a "dangerous" expedition but like all wilderness work there is potential for injury. Participants will sign a waiver releasing TIGHAR from all liability. No firearms of any kind are permitted on TIGHAR expeditions.

The Site and its Historical Significance

Unlike previous TIGHAR field schools, the YB-49 crash site does not feature big recognizable chunks of airplane. Most of the wreckage was cleaned up right after the crash. What remains is a rather large depression littered with hunks of melted aluminum marking the main impact point, and a still-unknown number of outlying sites where various major components came to earth. Preliminary metal detector investigations suggest an abundance of buried components. Surprisingly, given the importance of the crash, the entire site was apparently never mapped nor were all of the remains of the five men aboard accounted for. After 54 years many questions remain about this historic crash. Perhaps we'll be able to answer some of them.

Granddaddy's Grave

Today's B-2 marks the resurgence of a visionary design concept that might have dicated the shape of all large aircraft had things gone a little differently in the late 1940s. The jet-powered YB-49 was the culmination of that first abortive generation of tailless aircraft and, just as the loss of the Hindenburg signaled the end of the rigid airship, so the crash that we'll be investigating heralded the disappearance, for many years, of the "flying wing." What we'll be doing in October is an archæological examination of the grave of the B-2's Granddaddy.