

# The NIKU III Expedition Once And For All

## *The objective of the expedition*

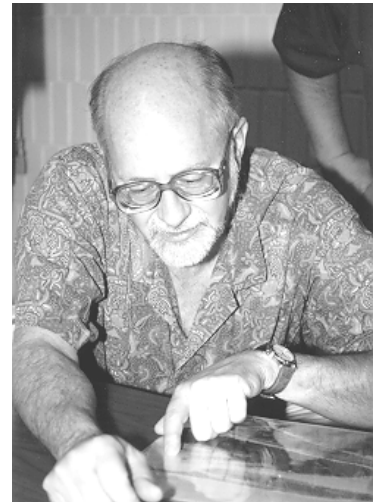
will be to find, photograph and, where practical, recover additional physical evidence relating to the disappearance of Amelia Earhart and Fred Noonan. The scientific party will be comprised of 20 individuals and, as with previous expeditions, a representative of the Republic of Kiribati will monitor all activity at the island. A full thirty days of operations at Nikuamaoro are planned. Departure from Honolulu is set for late January 1997.

## *Village Survey*

A team under the direction of noted archaeologist Thomas F. King, Ph.D., SOPA (TIGHAR #0391CE) will conduct a survey of the island's formerly settled areas. The detailed exploration of the densely overgrown village will be aided by digitized and enhanced aerial photos of the settlement taken in its heyday, keyed to global positioning system (GPS) technology provided by Trimble Navigation, Ltd. The methodology to be employed will involve identifying specific formerly inhabited sites and carefully clearing away subsequent overgrowth and fallen vegetation to permit both visual and remote sensing inspection. It is hoped that

this survey will uncover artifacts which will be conclusively identifiable as components salvaged from the Earhart Electra.

*Thomas F. King, Ph.D. has extensive archaeological experience in Micronesia and served as Project Archaeologist on TIGHAR's Niku I expedition in 1989. TIGHAR photo by P. Thrasher.*



*An example of the challenge facing the Village Survey team, this photo shows the Rest House pictured on page 33. Only the corrugated metal portion of the original structure at the right-hand side of the photo is recognizable. TIGHAR photo by R. Matthews.*

## Lagoon Search

A smaller team will operate a launch especially outfitted with remote-sensing technology with which to search the lagoon floor for large metal targets. An electromagnetic (EM) sensor and a Schonstedt Instruments underwater magnetometer will detect the presence of both ferrous and non-ferrous objects while a sub-bottom profiling sonar unit will provide information on the general size and shape of targets, even if they are buried under silt and sand. Promising targets will be excavated, inspected and photographed by divers. Accurate search transects will be achieved through GPS navigation. It is hoped that the lagoon search will yield the main body of wreckage of the Earhart aircraft.



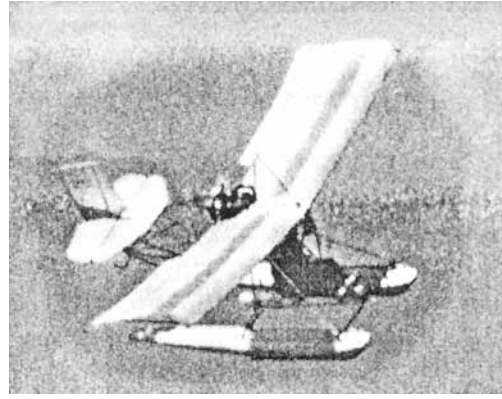
*U.S. Army Corps of Engineers hydrologic engineer Kenton Spading (TIGHAR #1382CE), shown here inspecting a Trimble Navigation GPS unit, will lead the Lagoon Search team. TIGHAR photo by P. Thrasher.*



*TIGHAR pioneered the use of water-borne electromagnetic (EM) sensing in aviation archaeological applications during field operations in Newfoundland. Here Dr. David Scott and Kenton Spading use a Geonics EM61 to search for the remains of the lost 1927 aircraft l'Oiseau Blanc. TIGHAR photo by R. Gillespie.*

## Aukaraima Survey

A third team will seek to locate further personal effects and possibly even human remains in Aukaraima (south) district, the area where previously recovered artifacts and island folklore indicate that Earhart and Noonan may have perished. Methodology will be similar to that employed by the Village Survey team but may also include the deployment of ground penetrating radar (GPR). Scholarly opinion holds that human remains encountered by Gilbertese laborers were probably buried near the site of discovery and the graves marked, but not necessarily in a durable fashion. A GPR sweep of the suspect area could identify a now-unmarked grave.



*To provide aerial reconnaissance and photographic support for the search teams, the expedition will be equipped with a two-place, ultra-light type aircraft on floats. Shipment of the aircraft and other expedition gear to and from Hawaii is being donated by FedEx (a TIGHAR Corporate Member).*

*A team leader on TIGHAR's 1991 Niku II expedition, Kristin Tague (TIGHAR #0905CE) will resume the search in Aukaraima (south) district. TIGHAR photo by P. Thrasher.*



*The Niku III expedition will be led by TIGHAR's Executive Director Richard E. Gillespie. TIGHAR photo by R. Matthews.*



*Although less jungled than the abandoned village, Aukaraima presents formidable obstacles to detailed inspection for small artifacts. Shielded from cooling lagoon breezes, and with the sun reflecting on the hard, coral rubble surface, the daytime temperature often reaches exceeds 120°F. TIGHAR photo by R. Matthews.*

## Transportation

The expedition ship will be the University of Hawaii Marine Center's research vessel R/V *Ka'Imikai-O-Kanaloa* (for obvious reasons, generally known as "the K-O-K"). As the expedition's base of operations



for the 46 day expedition, the 223 foot ship features all the necessary accommodations and equipment to support the scientific party including a SeaBeam 210 multibeam sonar bathymetric mapping system, state-of-the-art navigation and communications capability, four laboratories, and an electronics shop.

## Documentation

Accompanying TIGHAR's Niku III expedition will be a film crew for the award-winning PBS television series NOVA. After a three-month evaluation of TIGHAR's work by NOVA's Science Unit, the decision was made to "produce an independent examination of the Earhart mystery, much like the one we undertook of the Kennedy assassination in 1988. While we plan to look at the whole range of theories about what happened to Earhart and Noonan, we expect a good deal of the program to focus on your expedition and the analysis of any artifacts you find on the island." NOVA's Earhart program is anticipated for the fall of 1997.

