

# TIGHAR TRACKS

A Publication of The International Group for Historic Aircraft Recovery  
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The beginning of a new year is a time for looking back to see how we got to where are, and for looking forward to see how we might best get to where we want to go. In 1988 we inaugurated the Earhart Project to test the hypothesis that the final flight of Amelia Earhart ended on the island of

Nikumaroro in the Phoenix Group. As the project completes its fifteenth year it is fitting and useful that we summarize what we've learned and what we're doing to move the project toward a definitive conclusion.

## Summary of Evidence

### We have learned that:

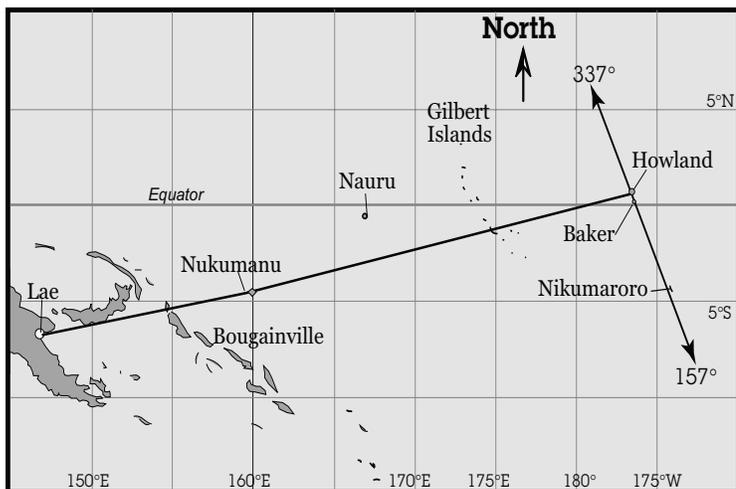
No one heard an in-flight distress call from the aircraft and Earhart never said she had run out of gas. The last radio call received by the *Itasca* was a position report that came at a scheduled transmission time. Earhart said that she was on a particular navigational line and that she was proceeding along that line. No floating wreckage was ever found. There is no direct evidence that the aircraft went down at sea.

Official reports show that proceeding southeastward on that line toward land was recognized by the naval officers directing the 1937 search as the flight's most probable course of action. The islands on that line are Howland, Baker, and Nikumaroro. Earhart did not reach either Howland or Baker.



Documents verifying the amount of fuel aboard the aircraft at takeoff and contemporaneous Lockheed fuel consumption reports and recommendations clearly indicate that the aircraft should have had more than enough fuel to reach Nikumaroro.

Radio calls heard for several days following the disappearance suggest that the aircraft was on land and intact enough to run at least one engine during that time. No transmissions would have been possible had the aircraft been afloat. Radio direction finder bearings taken on some of the signals indicate that they originated in the vicinity of Nikumaroro.



*Earhart's line of position, July 2, 1937.*

Aircraft components found in the abandoned village on Nikumaroro were apparently collected by the villagers and are consistent with Lockheed Electra parts but not with any other known aircraft. Most of the parts have been locally modified in various ways.

The diary of a British colonial officer who visited the uninhabited island three months after the Earhart disappearance mentions “signs of previous habitation.” The officer, interviewed by TIGHAR, recalled that the site “looked as if someone had bivouacked for the night.”

Tidal and reef surface data collected by TIGHAR at Nikumaroro have been used in conjunction with published tidal data to hindcast the conditions that existed on the reef at Nikumaroro during the window of time on July 2, 1937 when the Earhart flight could have reached the island. The data show that, in the area where later anecdotal accounts suggest the landing was made, the reef surface was smooth enough and the water level was low enough to permit a relatively safe landing.

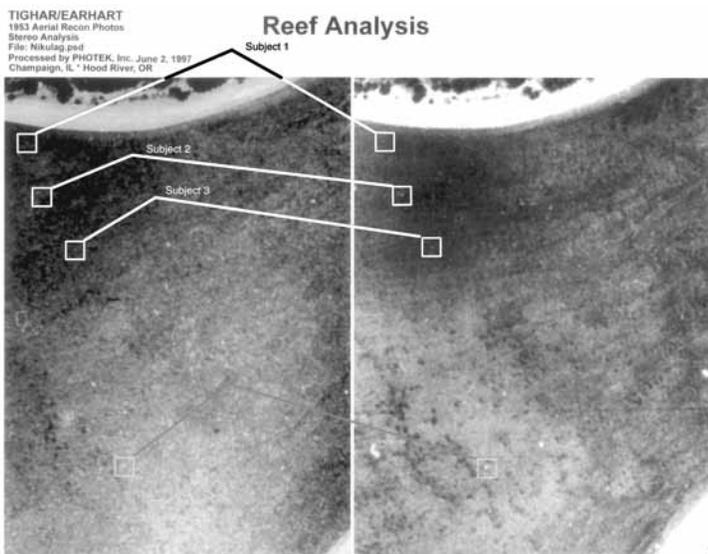


Official British files document that, in 1940, the remains of a castaway were discovered on the island. Artifacts found with the bones suggest the presence of a man and a woman who were not Pacific islanders and appear to be consistent with items known to be associated with Earhart and Noonan. A sextant box found with the bones had numbers on it that are similar to numbers on an existing sextant box known to have belonged to Fred Noonan. Extensive research has turned up no alternative explanation for the presence of the bones and artifacts.

There is a site on the island that matches the description of the place where the bones were found. Archaeological excavations at that site have produced evidence that it was occupied for a period of time by a person or people who were using found objects as tools, living off

When aircraft from the battleship USS *Colorado* searched the island from the air one week after the disappearance “signs of recent habitation” were reported on the uninhabited island. However, no ground search was carried out.

Anecdotal accounts from several independent sources tell of an airplane wreck at Nikumaroro that was already there when the first settlers arrived in late 1938. The various accounts are consistent in describing wreckage seen on and near the reef at the northwest end of the island. Forensic examination of aerial photography of that area taken in 1953 suggests the presence of light-colored metal debris on the reef at that time. Components from the wreck are said to have been put to local use by the settlers.



*Forensic imaging analysis of 1953 photos. Imaging courtesy of Jeff Glickman, Photek Inc.*



*TIGHAR archaeological dig on Nikumaroro, 2001. TIGHAR photo by R. Gillespie.*

local fish, birds, turtles and shellfish, and opening local clams (which somewhat resemble oysters) in ways that are not typical in the Pacific islands but are commonly employed in opening oysters in the United States.

In 1941 a British colonial physician in Fiji examined the partial skeleton found on Nikumaroro and judged it to be that of a short, stocky European or mixed-race male. The bones themselves have since been lost but measurements of the bones taken by the British physician have been evaluated by forensic anthropologists who, using modern methods and databases, judged the skeleton as most probably being that of a relatively tall white female of northern European descent.

In short, fifteen years of work has brought us confirmation that Earhart should have reached Nikumaroro and could have reached Nikumaroro, and that a series of highly unusual events occurred on Nikumaroro which, at this point, seem inexplicable unless Earhart did reach Nikumaroro.