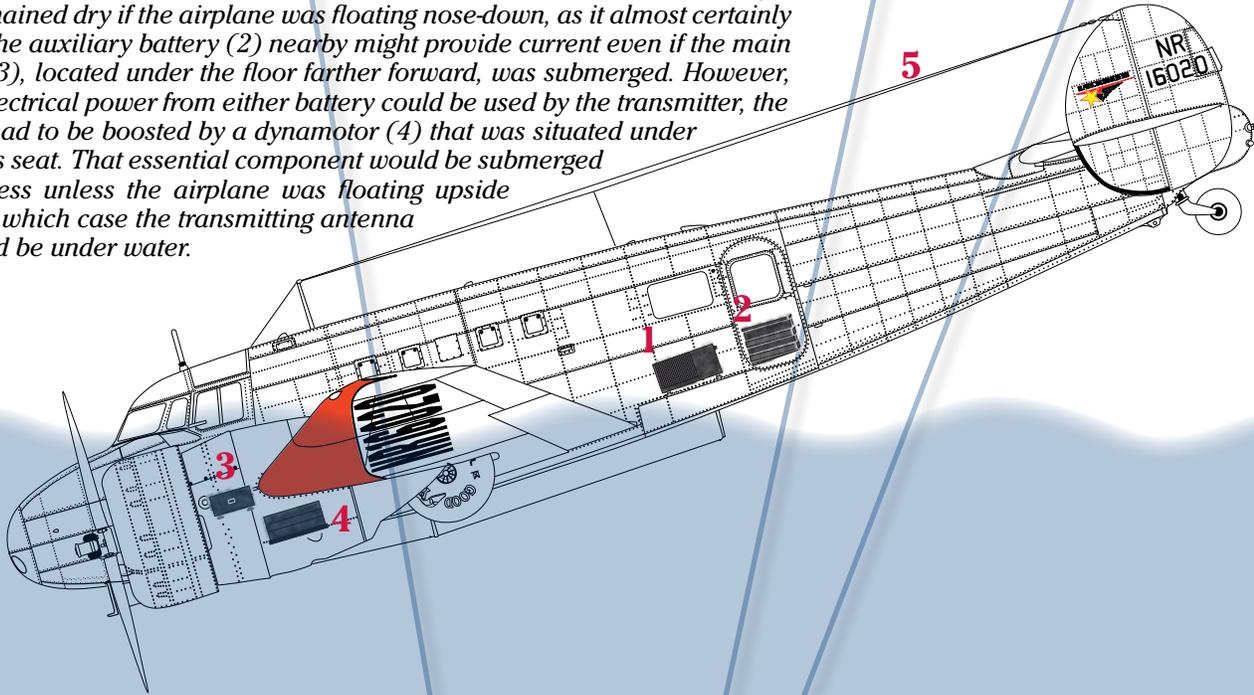


The Post-Loss Radio Signals

One of the most important lines of investigation in the Earhart Project is the gathering and evaluation of reports of radio transmissions received from the Earhart Electra after it was officially declared missing. As was known at the time, critical

components of the aircraft's radio system would be submerged and inoperable if the Electra was afloat on the ocean. If even one of the post-loss radio signals was genuine, the airplane did not go down at sea.

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 under water.



TIGHAR researchers have gleaned more than a hundred alleged receptions from Coast Guard logs, official message traffic, Pan American Airways memoranda, contemporary newspapers, and in a few cases, individuals who only came forward many years after the event. Each alleged reception has been analyzed by date, time and frequency using the latest radio propagation software to determine the probability, or improbability, that a signal from Earhart's aircraft could have been received as reported. Each reception has also been evaluated according to qualitative factors such as the credibility of the reporting individual or agency, similarity to other reported receptions, and the presence of occult content (accurate information that couldn't otherwise be known to the reporting individual).

The analysis shows roughly a quarter of the reported radio signals to be not credible. Some were transparent hoaxes while others were simply so unlikely as to be functionally impossible. A significant number, however, appear to be credible. That is not

to say that we can be sure they were sent by Earhart or Noonan. Absolute certainty would require Amelia or Fred being here to say, "Yes, I made that call." We can, however, say that one of two conditions was the case:

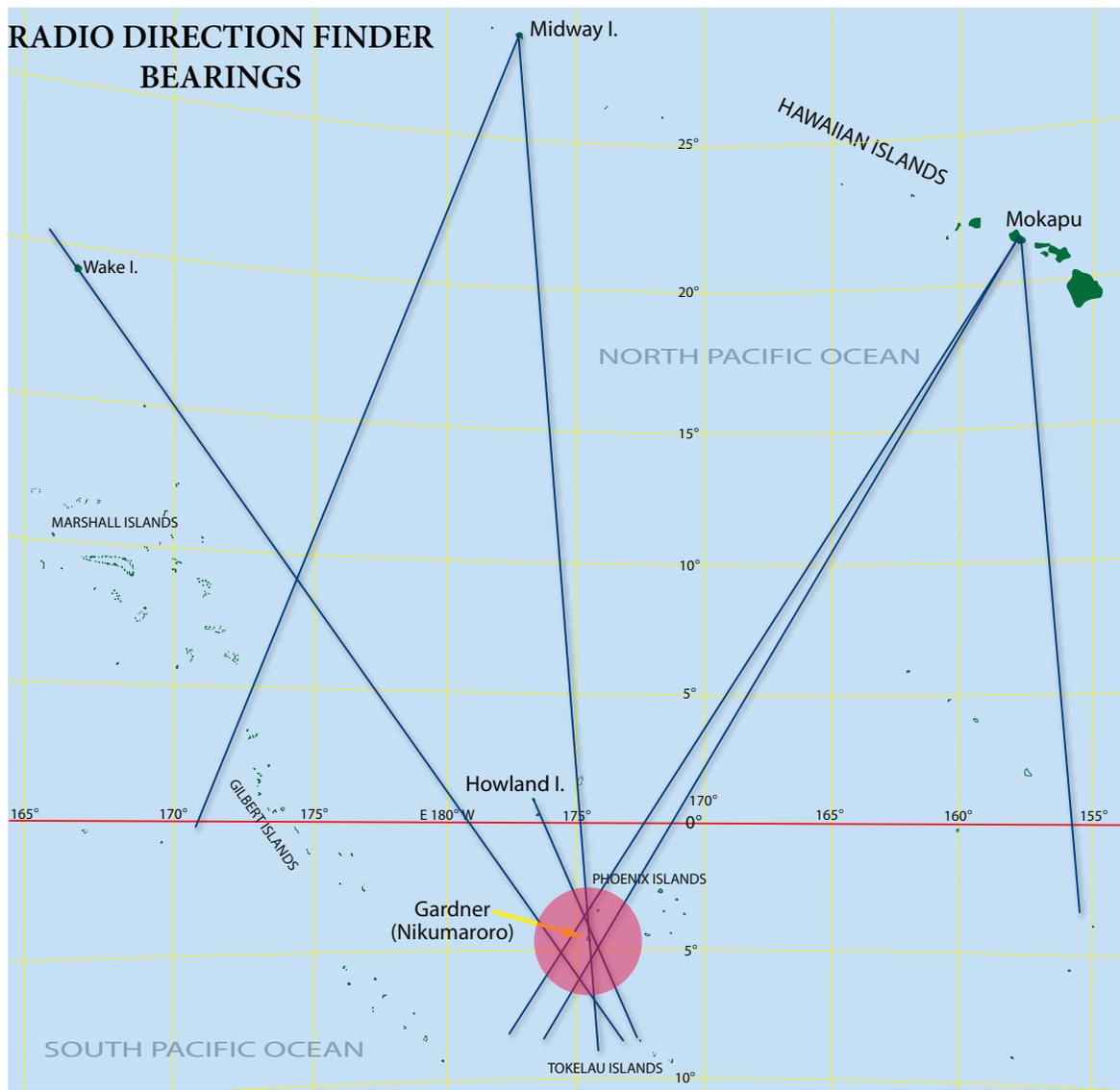
1. Either Earhart and Noonan were making radio calls from the Electra on land somewhere in the Phoenix Group of islands

or

2. There was a hoaxer pre-positioned in that region who was able to transmit on Earhart's frequencies, had information about her that was not known to the public, was able to mimic her voice, and knew that she would not reach Howland.

Even the most dedicated conspiracy buff would have a hard time accepting the second possibility. It seems safe to conclude that the Electra did not land in the ocean.

RADIO DIRECTION FINDER BEARINGS



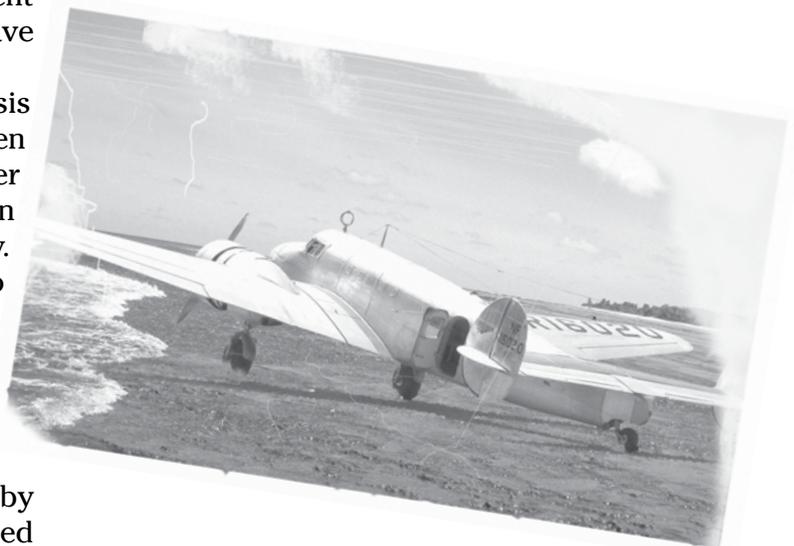
Radio bearings from Pan American stations at Mokapu, Midway and Wake; a Coast Guard radio bearing from Howland, and the relative strengths of transmissions received at other locations confirm that the credible post-loss signals emanated from somewhere within the red circle.

The TIGHAR website (www.tighar.org) will soon feature a catalog of all reported post-loss receptions with full details and probability figures for each event. A separate catalog will list only the signals deemed to be credible. In addition, an interactive timeline will present the credible signals in a graphic hour-by-hour representation of day/night, high tide/low tide, and water levels for the reef at Nikumaroro. The correlation between the times when credible messages were sent and the times when conditions on the reef would have permitted messages to be sent is compelling.

Although a 21st century computer analysis reveals many of the post-loss signals to have been almost certainly genuine, the picture was far fuzzier in 1937. Many of the signals were nothing more than basic carrier waves heard on Earhart's frequency. In some cases dashes were heard in response to requests for dashes. When voice was heard it was usually unintelligible. Almost without exception, reports of voice messages with intelligible content were accidental receptions by private citizens who stumbled upon a harmonic of Earhart's primary frequencies. The only message received by professional government operators that contained

potentially useful information was the "281 message" received the U.S. Navy radio station at Wailupe, Oahu on the night of July 4th (see sidebar page 10).

Nowhere is there an official record of a government operator hearing a voice transmission in which Earhart identified herself by name and gave potentially useful information about her location and condition. Or is there?



THE STRANGE CASE OF THE MISSING MESSAGE

If an account in Fred Goerner's book *The Search for Amelia Earhart* (Doubleday, 1966) is true, on July 7, 1937 three operators at U.S. Navy Radio Wailupe (the same station that heard the 281 message) heard the voice of a woman who identified herself as Earhart attempting to contact *Itasca* using the ship's call sign and the Electra's radio call sign. Her message contained unambiguous information about her location and condition.

In his book, Goerner describes visiting Elmer Dimity, an inventor and one-time director of The Amelia Earhart Foundation, a group formed in 1937 to raise money for an expedition to continue the search for Earhart. On page 273 Goerner writes:

Among the mass of letters and photo-copies of logs, I found two documents which seemed of great importance. They were duplicates of messages copied by three operators at the Navy radio station at Diamond Head, Oahu, Hawaii, in the first days after the disappearance. On the Fourth of July, 1937, the station had received carrier waves on 3105 kilocycles at approximately 15 and 20 minutes past the hour during the night. At one point a man's voice had been heard, but it was undistinguishable. On the night of July 7, 1937, a woman's voice had been heard saying, "Earhart calling NRU1-NRU1-calling from KHAQQ. On coral southwest of unknown island. Do not know how long we will At that point the carrier wave had faded, but a few seconds later the woman's voice broke in and said, "KHAQQ calling, KHAQQ. We are cut a little ..." the wave faded a second time, and the voice was not heard again.

"How did you get these?" I asked Dimity. "One of the operators gave them to me," he replied. "He felt somebody should know about them."

The reception on July 4 is referenced in a July 10, 1937 Pan American Airways memo. "Wailupe reports they heard male voice to say '31' – rest of transmission unreadable." so the Navy station at least informed Pan Am.

The message allegedly heard on the night of July 7 is remarkable. Earhart identifies herself by name and call sign. "On coral southwest of unknown island" is consistent with other credible messages that describe the location as "on reef" and "partially on land, part in water." The location on Nikumaroro where aircraft wreckage was reportedly seen in later years is technically on the west end of atoll but, if you are on the reef in that location, the bulk of the visible land mass is to the northeast creating the impression that you are southwest of the island.

THE 281 DEBACLE

Three Navy operators copied a few cryptic phrases that were sent in poorly keyed Morse code:

**"281 north Howland call KHAQQ
beyond north don't [or won't] hold
with us much longer above water shut
off."**

Itasca's commanding officer interpreted the message to mean that the plane was afloat 281 miles north of Howland and went racing to the rescue. Arriving at the location the next evening, a lookout saw a meteor and took it to be a flare. *Itasca* radioed, "Earhart from *Itasca*. We see your flares and are proceeding toward you." Navy Radio Wailupe overheard the transmission and forwarded the word to other commands. Somebody leaked the news to the press and *Itasca* was immediately bombarded with requests for photos of the rescue and interviews with Earhart. The false alarm was extremely embarrassing to all concerned.

The phrase "Do not know how long we will.." is similar to "won't hold with us much longer" in the 281 message and "We can't hold on much longer" in another credible report.

As startling as the content of the July 7 message is the fact that it does not appear in the official message traffic. If Goerner's account is accurate, the best post-loss transmission received by government operators was never relayed to the searchers. Why? We can only speculate.

On July 7 the battleship *Colorado* reached the search area and launched its planes in an unsuccessful attempt to locate and inspect Winslow Reef. Expectations were high that Earhart and Noonan would be found on one of the Phoenix Islands in the days to come. It may be that after the embarrassment of the 281 debacle the night before, and with rescue of the lost fliers possibly imminent, the commander at Wailupe decided to lay low.

Unfortunately, Goerner does not mention the frequency on which the July 7 transmission was heard or the time. Both are necessary for checking propagation conditions and assessing the probability that a signal from Nikumaroro could be heard as reported.

TIGHAR researchers are currently trying to document that the July 7 Wailupe reception happened as described by Goerner and get the frequency and time information so that we can assess its credibility.

