

In Pearl Harbor, Hawaii, Rear Admiral Orin G. Murfin, Commandant of the Fourteenth Naval District, ordered that a PBY Catalina flying boat be dispatched to Howland to assist with the search effort, but that flight was later forced to return due to adverse weather conditions encountered while in route.

The battleship USS *Colorado*, which had onboard three catapult-launched floatplanes, was ordered to leave from Pearl Harbor on July 3rd and proceed to Howland to join in the search.

At North Island Naval Air Station in San Diego, the aircraft carrier USS *Lexington* and her four destroyer escorts were ordered to make ready to get underway for Howland. In less than 24 hours, the necessary stores and supplies for a four-week cruise were loaded. When the *Lexington* left San Diego on July 5th, she had onboard 62 planes capable of searching a vast area.

EVENING, DAY #1

While the *Itasca* searched to the north of Howland, the ship's radio room continued to monitor Earhart's frequencies. At that time, it was still not generally known that Earhart's plane could not transmit if it was in the water.

At 6:00 p.m. local time, a weak signal was heard behind the static on Earhart's nighttime frequency of 3105. Although no words could be made out, it was assumed that it was a message from Earhart. *Itasca* immediately responded by voice and in code, but there was no reply.

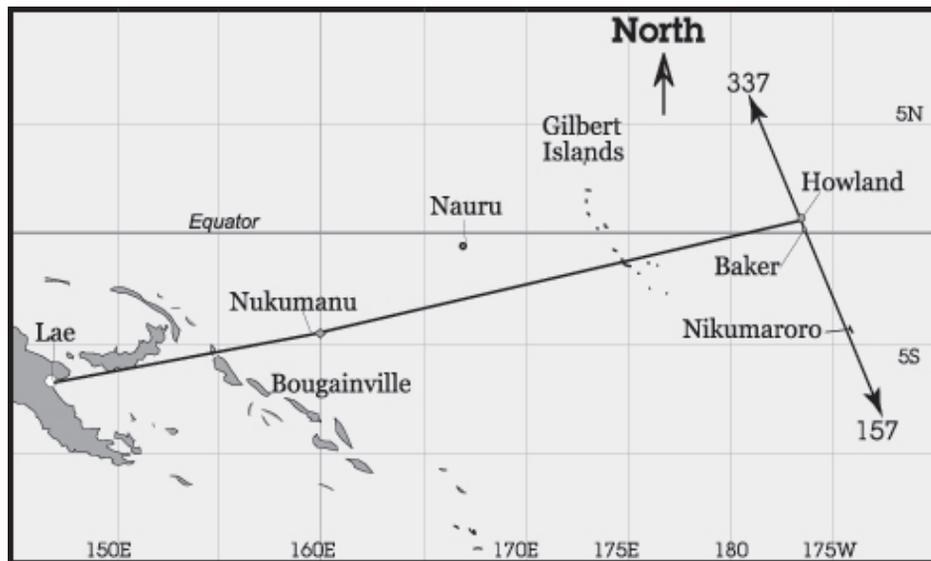
As the sun sank below the horizon and reception conditions improved, the voice was back, but very weak and unreadable. The Pan American Airways station on Mokapu Point in Hawaii also heard a "steady carrier on 3105 – no modulation, very weak." If the signals were coming from Earhart, it meant that her plane had to be on land.

At 6:30 p.m., *Itasca* requested Earhart to send a series of long dashes. Following this request, and a thousand miles to the southeast, the New Zealand Navy cruiser HMS *Achilles* heard intermittent transmissions on 3105, which it interpreted as dashes. At about this same time, the steamer SS *New Zealand*, 1200 miles from Howland, heard dashes on 3105 kc. At 6:37 p.m. *Itasca* heard these signals as well as the word "Earhart."

Itasca again called the plane in both voice and code, and this time a man's voice was heard "still distorted and unreadable." Since the *Itasca* had never been informed that Fred Noonan was on board the flight, this transmission was logged as "phone signals definitely not Earhart." At about 7:00 p.m. the garbled voice transmissions stopped.

Then at 8:30 p.m., government radio operators in Hawaii heard dashes on Earhart's other frequency of 6210 kc. Still monitoring 3105, *Itasca* didn't hear this transmission. Thirty minutes later, however, *Itasca* heard a weak signal on 3105 that was unreadable.

A thousand miles to the west on the British island of Nauru, a radio operator monitored "fairly strong signals" on 6210 kc. Once again, speech could not be interpreted because of bad modulation.



"We are on the line 157 337." Based on her last radio transmission, it is possible that, failing to find Howland Island, Earhart turned southeast and flew on a course of 157 degrees towards the Phoenix Island group, located some two hours flying time away.

At about 9:30 p.m., the voice signals stopped.

EVENING, DAY #2

In Oahu, the Coast Guard's Hawaiian Section enlisted the aid of two of Honolulu's major commercial radio stations, KGU and KGMB. It was known that Earhart was familiar with both of these stations from her previous visits to Hawaii, and, on the chance that she might be listening to one of them for news of rescue efforts on her behalf, these stations were asked to broadcast a special message to Earhart. If she replied, direction-finding receivers in Hawaii, Midway Island, Wake Island and San Francisco would attempt to obtain bearings on these signals to determine where they were coming from. *Itasca* was instructed to "not, repeat not, use 3105 or 6210 kc next two nights to permit absolute check on authenticity of calls and to permit monitoring of above frequencies by use of directional antennae."

At 10:00 p.m. in Honolulu (9:00 p.m. aboard *Itasca*) KGU made a special broadcast on its regular frequency, asking Earhart to reply. Shortly afterwards, a faint carrier on 3105 was heard in Hawaii by Pan American and by the Coast Guard. Since no one had informed *Itasca* about the special KGU broadcast, the ship's radio room was not initially monitoring 3105. When it did start listening, however, it picked up a weak carrier.

KGMB made special broadcasts to Earhart at 10:30 p.m. and at midnight. In Hawaii, Pan American, the Coast Guard, and the U.S. Navy radio station at Wailupe heard faint signals. All told, about four hours of intermittent reception on Earhart's frequency were heard by *Itasca*, the Coast Guard, the Navy, and Pan American.

Five thousand miles away in Rock Springs, Wyoming, 16-year-old Dana Randolph was listening to a commercial radio set that received shortwave bands. The set was connected to a special antenna that Dana had just erected. At about 8:00 a.m. on the morning of July 4th, while

listening around 16,000 kc, he heard a woman say, "This is Amelia Earhart. Ship on a reef south of the equator. Station KH9QQ [sic]." The signal then died away.

Dana and his father reported what he had heard to the local Department of Commerce radio operator. The operator realized that the frequency Dana had been monitoring was most likely 15,525 kc, the fifth harmonic of 3105. From personal experience, the operator knew that freak reception of harmonics were possible and immediately forwarded this information on to Washington.

EVENING, DAY #3

At 8:00 p.m. on the evening of July 4th, KGMB began broadcasting the following special message at intervals of 15 minutes: "To Earhart plane. We using every possible means establish contact with you. If you hear this broadcast, please come in on 3105 kc. Use key if possible, otherwise voice transmission. If you hear this broadcast, turn carrier on for one minute so we can tune you in, then turn carrier on and off four times, then listen for our acknowledgement at 0645 GCT."

As the evening wore on and reception conditions improved, more stations began to hear the replies. The Pan American stations on Mokapu Point, Midway Island and Wake Island were able to take directional bearings that placed the source of the signals as somewhere in the area of McKean Island and Gardener Island in the Phoenix Island group.

Based on this new information, the Navy concluded that, after failing to find Howland, Earhart and Noonan had turned southeast in an attempt to reach the nearest land. This theory is consistent with the "we are on the line 157 337" message received from Earhart during her last transmission and, since Earhart's radio would only work if the plane was on land, it stood to reason that she was most likely on one of the Phoenix Islands.

Accordingly, the *Colorado* was ordered to