

# Amelia Earhart's Loop Antenna (sort of...)

By Bart Lee, K6VK, CHRS Archivist

World Famous aviatrix Amelia Earhart flew into the South Pacific in 1937 and was never heard from again.\*



Amelia Earhart Holding Bendix Radio Direction Finder Loop Antenna

Earhart's lack of familiarity with the Bendix radio direction finder was a significant liability.

*Credit: National Air and Space Museum, Smithsonian Institution*



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\* [https://en.wikipedia.org/wiki/Amelia\\_Earhart](https://en.wikipedia.org/wiki/Amelia_Earhart) . Some say there was a secret assignation with Judge Crater, who also disappeared in the 1930s, who also was never heard from again. Cf. [https://en.wikipedia.org/wiki/Joseph\\_Force\\_Crater](https://en.wikipedia.org/wiki/Joseph_Force_Crater). It is more likely that the Japanese shot her as a spy. Many of the graphics here come from: <https://earharttruth.wordpress.com/2016/04/> .

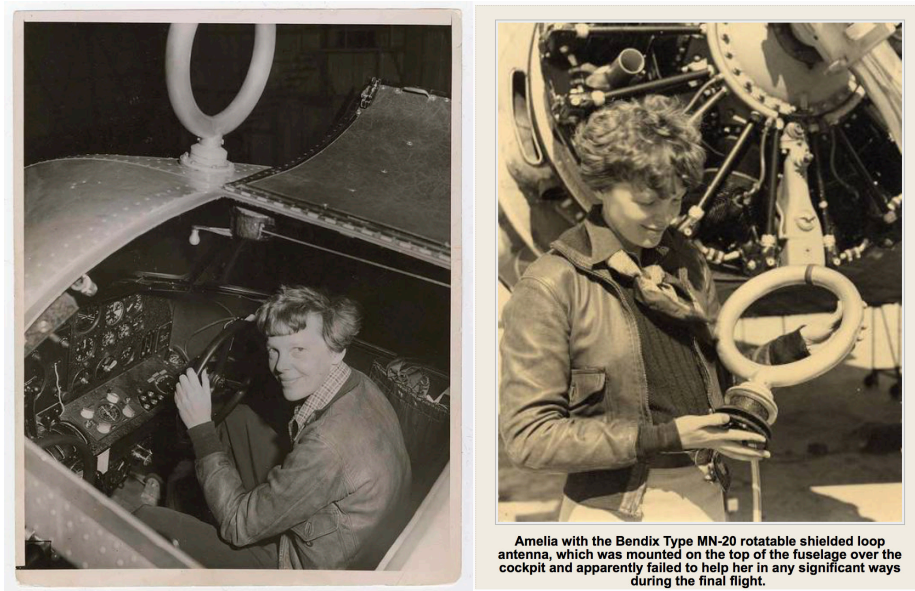
Ms. Earhart seems to have been a reasonably good pilot but not very good at radio operation. She used a then state-of-the-art Bendix loop antenna for radio direction finding.

The Jon Winchell Communications Center at CHRS RadioCentral holds that loop antenna, in a slightly later Navy iteration.

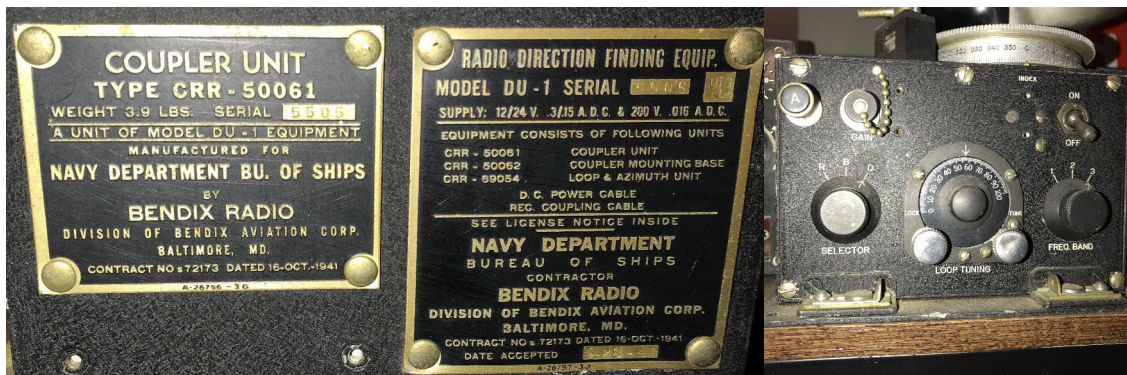


The Bendix Loop Antenna system (donated by Steve Keachie, x U/C labs) in the US Navy version, model DU-1.

The next two graphics show Ms. Earhart and her aircraft RDF:



The CHRS Loop RDF System in the Comm Center:



The Bendix RDF radio using the Loop Antenna:





The bad news:<sup>†</sup>



There are many theories about Ms. Earhart's disappearance. Some people are still looking for her. It does seem that her lack of radio knowledge doomed her.

Her last radio transmissions were:

*"We are on you but cannot see you."*

Then: *"We are on the line 157-337 flying north and south."*<sup>‡</sup>

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<sup>†</sup> From "A Tragedy of the Pacific" a newsreel:

<https://www.britishpathe.com/video/stills/a-tragedy-of-the-pacific> .

<sup>‡</sup> From: [https://www.thesentinel.com/communities/montgomery/news/the-amelia-earhart-saga-part-2-the-disappearance-and-searches/article\\_0fff366-f4fa-50bc-bc18-30658665e2ab.html](https://www.thesentinel.com/communities/montgomery/news/the-amelia-earhart-saga-part-2-the-disappearance-and-searches/article_0fff366-f4fa-50bc-bc18-30658665e2ab.html) .

Western Wireless of San Francisco made Ms. Earhart's general aviation radio (see below). Earle Ennis had been its principal as early as 1910. He put together the 1910 airplane wireless telegraphy demonstration near San Francisco. This feat seems to have been the first such communication from an aircraft.<sup>§</sup>



(30 XI '22 v1, de K6VK) ##

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<sup>§</sup> Jane Morgan, *ELECTRONICS IN THE WEST* (National Press, 1967), pps. 32 ff.