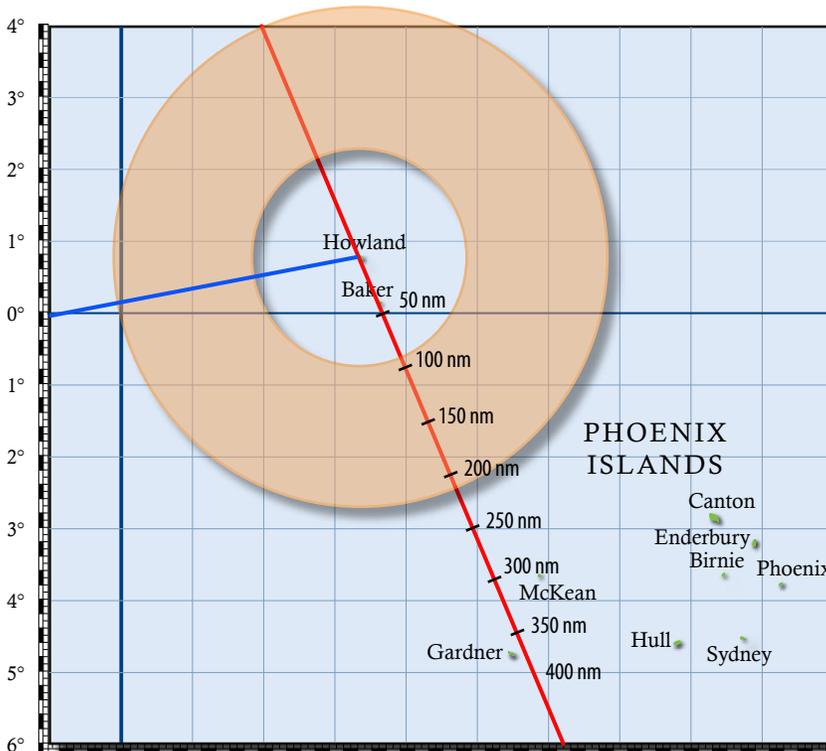


The 3105 Donut

Recent software advances have made it possible to computer model the propagation properties of the Electra's transmitting antenna to an unprecedented degree of accuracy. As a result, the long-held assumption that the closer the plane was to Howland Island the the stronger the signal heard by the Coast Guard would be, has been shown to be incorrect. A peculiarity in the antenna's

transmission pattern meant that if the plane was closer than about 80 nautical miles there was less than a 10% chance that *Itasca* would hear Earhart on 3105 kilocycles at maximum strength as recorded in the cutter's radio log. Chances are the Electra was at least 80 and perhaps as much as 210 nautical miles from the ship at the time of the last transmission. 🐾



At 08:43-55 local time Itasca heard Earhart say, "We are on the line 157 337. Will repeat message. We will repeat this on 6210 kcs. Wait. We are running on line north and south." The message came in at maximum strength. Given a newly discovered anomaly in the propagation pattern of the aircraft's transmitting antenna, to have even a 10% chance of being heard at maximum strength, the Electra had to be somewhere within the "donut" shown. If on the line southeast of Howland, the plane was much closer to Gardner Island (Nikumaroro) than previously assumed.

Historical research has turned up yet another piece of evidence that appears to connect Nikumaroro to the lost flight, but ... before we begin ... on a piece of paper jot down two numbers of any length. Any two numbers.

Now, set the paper aside and turn the page.