

FIFTY YEARS AGO ...

In Vol. XXIII (1946) of the *International Hydrographic review*, an interesting article LORAN - The New Radio Navigator was published. An extract of the paper is given below:

LORAN - THE NEW RADIO NAVIGATOR

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USHO "Pilot Chart" No. 1400, April 1946)

... **"Navigator's comments** - A report from a Loran-equipped ship, a coast Guard cutter is as follows:

"The Loran equipment has been used regularly for the past 3 weeks and the results were most successful. On a trip from Adak to Dutch Harbor (14 Nov.-16 Nov.) the Loran fixes agreed almost exactly with DR positions and soundings. On the return trip to Adak (20-23 Nov.) the Loran fixes and DR were again extremely close with the exception of while this unit was in the area just west of Bogoslof Island and in the immediate vicinity of the base line extension. During each trip a sun or star sight was impossible.

"On Saturday, 27 November, this unit departed Dutch Harbor for Attu. Loran positions were extremely accurate leaving Unalaska Island but poor visibility made it impossible to get accurate bearings from the islands. Throughout the morning the Loran observations were within 2 miles of our DR. During the night, as the result of a force 9 wind and condition 9 seas this unit became separated from the convoy. Because of the location of the equipment and the rolling and pitching of the ship it was impossible to get accurate readings throughout the night.

"Having ridden out the storm for 12 hours in mountainous seas the DR was not considered accurate. Loran positions were therefore used. At 1530 a three-bearing fix by RDF gave a position 2 miles south and 3 miles behind the DR as laid off from the last Loran position taken at 1230.

"At 0830 the next day the first thousand fathom curve of Bowers Bank was crossed giving a reliable advance. DR 53°42'N., 179°16'W. Loran position 53°59'N., 179°14'W. also on the thousand-fathom curve. Inasmuch as the sea was running from the north the 3-mile set to the south indicated by Loran was considered very possible.

"At 1340 a sun line was obtained, the first, and only one of the entire trip. At 1703 a Loran cross indicated a position of 1½ miles south of the estimated position.

"At 1141 the Loran position was 5 miles south of DR 8 miles south at 1202 and 10 miles south at 1238. A slight hunting had been noticed in the ship's gyro but comparison with the magnetic had not shown any serious error. An azimuth was not possible because of the typical, Aleutian

weather. At 1510 contact was made with the convoy and comparison with their position showed the Loran to be correct. It was the first indication of what later proved to be a serious gyro error, and the Loran equipment showed it immediately.

"Loran position showed that we were not making as much good as expected, a fact later confirmed. Upon crossing Bowers Bank the Loran fixes were within 1 mile and at 1827 the Loran fix of $53^{\circ}52'N.$, $170^{\circ}44'E.$ checked exactly with the estimated position obtained from a run of soundings while crossing Bowers Bank.

"This unit is very satisfied because it has been most reliable. It was quick to show the error in the gyro, even quicker than by comparison with the magnetic compass.

"Bad weather has made it impossible, except on rare occasions, to obtain sun sights so that an accurate comparison cannot be made. From experience, however, Loran is considered by this unit to be the outstanding single piece of equipment yet installed."
