

How drift bottles were used to map Northern Pacific ocean currents in the 1950's by George Holm

Among some mementos I selected from friend and club member, Nancy Brown's, collection after she died was a sealed 12-ounce, 1950's brown beer bottle that contained a note inside. The bottle wasn't cleaned well and I would have left it on the shelf had it not been for writing on the note that read ONE DOLLAR in bold letters. When I held it in my hand, I could read a number, 25263, and an address for the Fisheries Research Board of Canada, Pacific Oceanographic Group, Nanaimo, B. C., Canada. My interest was stirred since I live just a two hour ferry ride from Nanaimo, and I had visited the station before.



A Google search revealed that the bottle had been part of a large oceanographic project to chart ocean currents in the northern Pacific Ocean. The method used was to release hundreds of drift bottles at a time from set locations along the coast and then record where ocean currents had carried them after they washed ashore and were subsequently found. Bottles were set adrift monthly for three years, from August 1956 to April 1959, and forty-two releases (33,869 bottles) were made.

Twenty-three releases (19,449 bottles) were made from Ocean Station "P" or Weathership "Papa", as it was also known. That station was permanently anchored off the coast of Vancouver Island at lat. 50°N, long. 145°W, and releases from there were made at approximately 6 week intervals. The bottle Nancy had found, is in all probability, from one of those releases.

On the note inside are instructions for the finder to record the location where the bottle had washed ashore and then place the note in the mail, return postage was guaranteed. In return for doing so the finder would receive a Canadian one dollar bill by return mail. Why Nancy didn't do so, I don't know. It could be that she didn't want to break the bottle or she may have found it long after the project had been publicized - I can only speculate.

A one dollar finder's fee today would not garner much attention nor interest, but that was the 1950's, and a dollar then had many times the buying power that it does today. I began my career at the Vancouver Sun newspaper in 1963 and my hourly starting wage at that time was one dollar an hour.

Bottles were sealed with a cork after notes were placed inside and their necks were then dipped in "Waterworks" tar. They were packed in cardboard cartons and dropped overboard after breaking the tape seal on the cartons, at first in lots of 1000 and later in lots of 500 or less.

I have been able to find information about how many bottles were released each time and on what days those releases were made, but after much effort, I have not been able to find any record of the numbers on the notes and in what sequence those numbered bottles were released.

Locations where bottles were recovered include California, Oregon, Washington, British Columbia, Gulf of Alaska, Kodiak Islands, Aleutians, Hawaii, Japan, Kure, Midway and the Philippines.

Success of the project relied entirely on the chance that ocean currents would carry the bottles to locations throughout the Pacific where people would be present to find them after they came ashore. Some of the bottles in this study were in the ocean for 3½ years before they were found and in that time some of those had travelled as far as 9000 miles.

My thanks to Rick Harbo and Anne Lomas for their their assistance with looking for reference material.

References

- Dodimead, A. J. and H.J. Hollinger (1962). "Canadian Drift Bottle Releases and Recoveries in the North Pacific". Ocean Fisheries Research Board of Canada, Manuscript Report Series (Oceanographic and Limnological) No. 141. 64 pp.
- Poponoff, Nicholas P. (1960) "Description of the Northeastern Pacific Oceanography". CalCOFI California Cooperative Oceanic Fisheries Investigations, CalCOFI Reports, Vol. 7, 1960. 5pp.

