



Briti Deb
narrateastory.com

Abstract

This poster explores how amateur ham radio and Project Magnet (U.S. Navy) can be understood through postage stamps and special covers. Stamps provide visual and historical evidence of the growth of radio communication and large-scale scientific efforts to measure Earth's magnetic field. Amateur radio images show antennas and global contact symbols, reflecting the rise of a worldwide communication network built by individuals. Project Magnet, conducted around 1951 carried out airborne and shipborne geomagnetic surveys to improve magnetic charts for navigation and research. By examining philatelic materials related to radio, navigation, survey aircraft, and magnetic mapping, this poster shows how both amateur operators and naval scientists contributed to understanding invisible natural forces.

Introduction

Amateur ham radio and Project Magnet both focused on invisible forces—radio waves and Earth's magnetic field. Amateur operators used radio signals to communicate across long distances, building international connections. Project Magnet, initiated in 1951 by the U.S. Navy Hydrographic Office (later the Naval Oceanographic Office), conducted global airborne magnetic surveys to improve magnetic charts used for ship and aircraft navigation. Aircraft equipped with airborne magnetometers flew systematic survey lines across oceans and continents. A separate Canadian program with the same name, begun around 1951 to investigate UFO reports; public interest in such events later appeared in numismatics, including a 2018 commemorative coin issued by the Royal Canadian Mint marking the 1967 Falcon Lake incident, in which a man reported close contact with a glowing UFO near Manitoba.

This poster uses stamps and commemorative covers to place these activities in historical context and to show how communication and geomagnetic research were presented to the public.

Method/Experiment

- This study uses philately as a historical and visual dataset.
- Collected stamps related to amateur radio, naval aircraft, oceanographic surveys, and telecommunication.
- Presented imagery, dates, captions, and themes.
- Selected images are presented as figures with captions to illustrate aircraft, survey missions, radio waves, and navigation symbols.



(Left) U.S., 1964 – Amateur Radio, 5¢ red lilac, perforation 10½ × 11, recess printed, 122 million issued (Scott 1260, Mi 875, Yt 776). (Right) India, 1965 – International Telecommunication Union Centenary, 15p, issued 1965 (PI 416).



Project Magnet – Geomagnetic survey commemorative cover

Data and Analysis

- Stamps show radio wave reflecting the expansion of amateur radio into a worldwide telecommunication network.
- Postal materials depicting naval aircraft (such as modified survey planes), oceanographic missions, and magnetic charts illustrate the importance of measuring magnetic variation for safe navigation.
- Project Magnet aircraft collected magnetic intensity, dip, and variation data worldwide. These measurements supported navigation charts and scientific research.
- Both ham radio and Project Magnet dealt with invisible natural forces. One relied on radio waves for communication; the other measured Earth's magnetic field for navigation and mapping.

Conclusion

- Philatelic material demonstrates that amateur radio and Project Magnet were linked by a shared goal: understanding and using invisible forces. Amateur operators expanded global communication through radio waves, while Project Magnet improved magnetic charts essential for marine and air navigation.
- Project Magnet was a long-term scientific program that significantly improved global magnetic field models around 1951.
- Together, these materials show how individuals and large institutions both contributed to advances in communication and navigation.
- Future work may include comparing postal representations of geomagnetic surveys across countries and examining how satellite-era magnetic mapping later replaced airborne surveys.

References

- [1] <https://apps.dtic.mil/sti/tr/pdf/AD0741064.pdf>
- [2] <https://www.ncei.noaa.gov/products/airborne-magnetic-data>
- [3] Galvin, C. (2008). Hydro to Navoceano: 175 years of Ocean Survey and Prediction by the US Navy, 1830-2005. *Earth Sciences History*, 27(1), 139-141.