

Notes on Telephones on Submarines

Relevant Artifacts:

- Howler
- Telephones: White rotary phone and peach/tan wall phone
- Telephone talker's manual: The submarine telephone talker's manual stamped for the U.S.S. Redfish (AGSS-395) and dated Apr. 25, 1945 (37 pages). Manual kept with binder that has other documents as well. Object ID 2020.029.0001

Using telephones

- Howler: Used within sub to reach different compartments. Turn the dial to the compartment you want to call and then crank the handle. Those in the receiving compartment would hear the "howl" and know to pick up the phone.
- Dial phone: Pick up the receiver, dial the phone number to connect
- Rotary phone: Pick up the receiver, put your finger in the circle for each number and turn all the way to the right. Let the dial return to its normal position, and repeat with the next number.

History of Telephones in Submarines:

- Underwater telephones were among first underwater communication systems - developed 1945 (Stojanovich)
 - Used single sideband suppressed carrier amplitude modulation in 8 kHz -11 kHz frequency range
 - Could send acoustic signals over several kilometers
- Underwater telephones are sometimes called "Gertrudes" (wikipedia)

When Presenting Telephones

- Start with the phone with buttons and ask visitors if they've ever seen a phone like that. Do they know how to use it? Let them pick it up, press numbers, etc.
- Next move onto the rotary phone. Once again ask if they recognize it. If they don't know how to use it, demonstrate. Let them have a go at it!
- Next ask them if they know how phones worked within a submarine. How did the sailors aboard communicate between the compartments?
- Show them the howler, and explain how it works
- Let them try cranking the handle and turning the dial
- If COVID-19 procedures are still in effect, be sure to sanitize all the artifacts in between visitors

Sources:

Stojanovich: http://millitsa.coe.neu.edu/publications/book/ency3_0.pdf

Wikipedia: https://en.wikipedia.org/wiki/Underwater_telephone