

# Trip to the National Cryptologic Museum

May 10, 2023



The visitors with our Guide

On May 10, twenty would be spies from the Bender JCC Men's Club journeyed to Fort Meade to visit the National Cryptologic Museum which is part of the NSA. We were led by former NSA IT engineer Steve Groff. The museum was recently renovated, and he made it really come alive.



3 and 4 disk Enigma

First, we were shown cryptologic cylinders dating back to the Revolutionary and Civil Wars. Then we viewed Enigma machines that the Germans used to code and decode messages during World War II. We even saw the machine used by Hitler. Steve demonstrated how the Enigma machines worked.

We saw a book of code keys that were distributed to the German units so they would know how to set up the Enigma machine for a given day.



Hitler's Enigma



The "Bombe"

We were then shown how the allies broke the Enigma code. They used a machine called the "Bombe" originally designed by Alan Turing. Enigma was a polyalphabetic substitution cipher. The Bombe could quickly help the code breakers to determine the key for a given day's code. We were also shown the Japanese version of the Enigma that the allies were also able to break.

Docent Groff, then showed us machines developed by the NSA to protect the transmission of American secret messages. First NSA built its own version of Enigma which had six coding disks making it almost impossible to break our cyphers. Then he showed us versions of the world's first Cray supercomputers. We learned that the blinking lights on these computers were only there so that they would look cool. Finally, we saw an early version of a satellite phone which made it nearly impossible for an enemy to intercept and steal our messages. After digesting as many facts as we could we transferred to Mission BBQ in Laurel and digested as much food as we could. The trip went off without a hitch and was enjoyed by all.



The Cray supercomputer