

Program Bulletin- Fog Signal Demonstration

Program Overview

This program focuses on the use of sound as an additional signaling method at Old Mackinac Point and other light stations around the Great Lakes. Visitors viewing the program will understand how fog signals, along with other visual signaling techniques, helped warn sailors of maritime hazards in all types of weather conditions. Visitors will also learn about the keepers' responsibilities related to the fog signal. The program concludes with a demonstration of the fog signal.

Signaling Methods

Light stations used at least three methods of signaling to send messages to nearby ships. Two of these techniques were visual: the unique sequences of bright flashes of light emitted from the tower (used at night and in bad weather) and the physical appearance of the lighthouse itself, called the daymark (used during the day when the light was turned off). Each station had a unique light signature and daymark. At Old Mackinac Point, the light signature was a 1-second flash, colored red from 1892 to 1913 and then converted to white, every 10 seconds. Old Mackinac Point's daymark included the black lantern room, the red roof on the keepers' quarters, and the yellow brick structure of the lighthouse itself.

The light and daymark worked well most of the time, but occasionally visual signaling was impossible. Heavy fog, rain or snow squalls, and even smoke from nearby forest fires obscured these visual signals, so lighthouse keepers turned to sound as an additional means of sending warning signals to sailors.

The Fog Signal

A fog signal was the first building built at Old Mackinac Point, in 1890. A simple building clad in corrugated metal, the fog signal contained two large boilers, connected to two 10-inch steam whistles. During periods of low visibility, the keepers would stoke the boilers to build up steam, then turn on an automated system that sounded one of the whistles (the other was kept on standby) in Old Mackinac Point's unique sequence: a 5-second blast, then 17 seconds of silence, then a 5-second blast, then 33 seconds of silence before the sequence began again.

The original 1890 fog signal building was too close to the lighthouse itself (built in 1892), so in 1906 a new brick fog signal building was constructed further east. The original building was relocated to the rear of the station grounds and converted into a warehouse. This building has been reconstructed and now houses the Straits of Mackinac Shipwreck Museum. The new brick building featured just one 10-inch whistle mounted facing the water. Keepers worked hard to maintain the boilers and other machinery inside so that the whistle could be turned on at short notice. Air horns, powered by compressed air from a gasoline-driven compressor, replaced the whistle in 1933.

The fog signal, along with the rest of Old Mackinac Point's signaling equipment, became obsolete with the completion of the Mackinac Bridge in 1957. In addition to navigation beacons, the bridge has its own fog signals. Although no longer necessary today, the fog signal at Old Mackinac Point helped sailors safely transit the Straits of Mackinac for over 65 years.