DEEP SEA ACOUSTICS

A sound bank of unexplained sonic phenomenons courtesy of the NOAA PMEL Earth-Ocean Interactions Program, NASA and the former Soviet Union.

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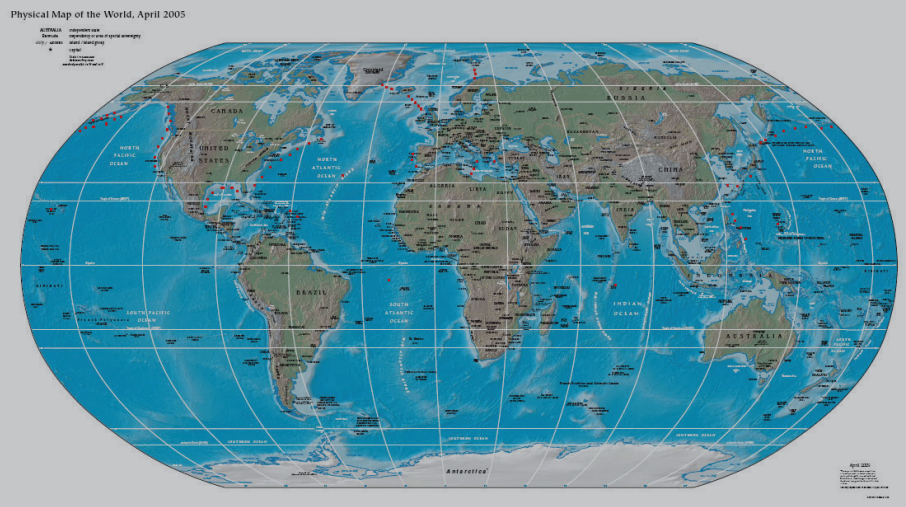


SOSUS

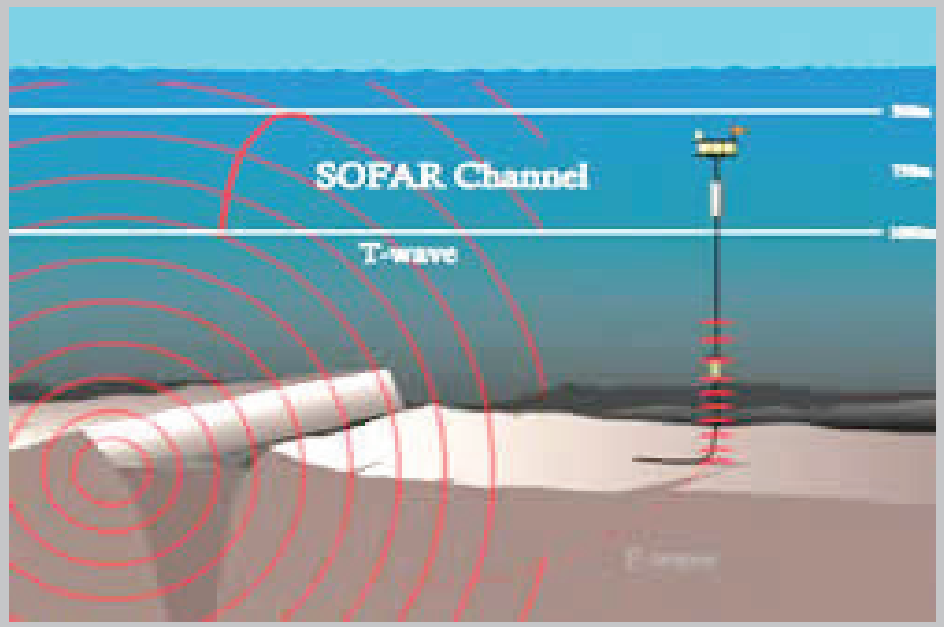
SOSUS, an acronym for sound surveillance system, is a chain of underwater listening posts located around the world in places such as the Atlantic Ocean near Greenland, Iceland and the United Kingdom—the GIUK gap—and at various locations in the Pacific Ocean. The United States Navy's initial intent for the system was for tracking Soviet submarines, which had to pass through the gap to attack targets further west. It was later supplemented by mobile assets such as the Surveillance Towed Array Sensor System (SURTASS), and became part of the Integrated Undersea Surveillance System (IUSS)

SOSUS development was started in 1949 when the US Navy formed the Committee for Undersea Warfare to research anti-submarine warfare. The panel allocated $10 million annually to develop systems to counter the Soviet submarine threat consisting primarily of a large fleet of diesel submarines. They decided on a system to monitor low-frequency sound in the SOFAR channel using multiple listening sites equipped with hydrophones and a processing facility that could detect submarine positions by triangulation[dubious – discuss] over hundreds of miles.

Moored Autonomous Hydrophones

Following the successful use of the U.S. Navy's SOund SUrveillance System (SOSUS) for monitoring low-level seismicity on the Juan de Fuca Ridge, NOAA's Pacific Marine Environmental Laboratory has developed a strategy for monitoring remote areas of the world ocean not covered by fixed hydrophone arrays. This strategy requires the deployment of moored, autonomous, hydrophones. In May, 1996 the array was successfully deployed in the eastern equatorial Pacific to begin long-term monitoring of the East Pacific Rise between 20N and 20S. In February 1999, an array of six hydrophones was deployed in the North Atlantic between 15N and 35N and in June 2002 an additional six hydrophones were deployed between 40-52N along the mid-Atlantic Ridge. Hydrophones were deployed in the Gulf of Alaska for marine mammal monitoring in 2000.

SOURCE:
https://www.pmel.noaa.gov/acoustics/haru_system.html



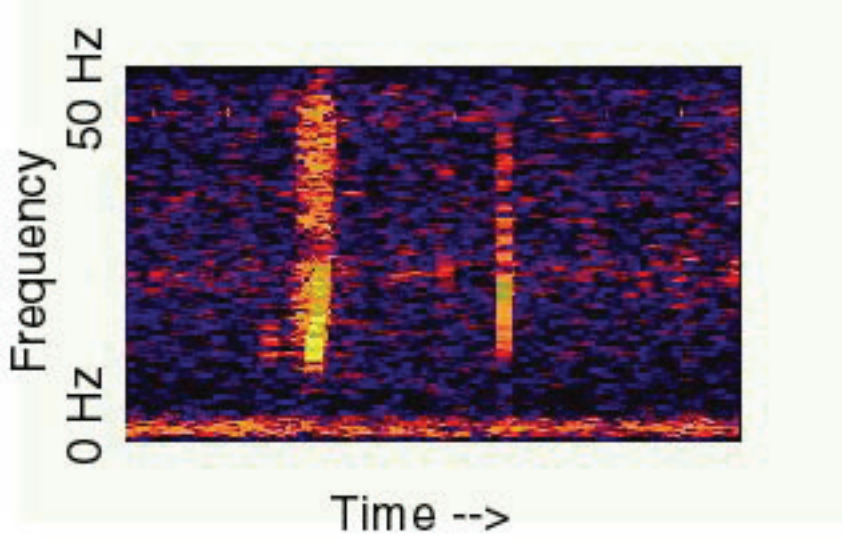
TRACKS

1. BLOOP
2. UPSWEEP
3. SLOW DOWN
4. THE TRAIN
5. JULIA
6. WHISTLE

BLOOP

Bloop is the name given to an ultra-low-frequency and extremely powerful underwater sound detected by the U.S. National Oceanic and Atmospheric Administration (NOAA) in 1997. The sound is consistent with the noises generated by icequakes in large icebergs, or large icebergs scraping the ocean floor.

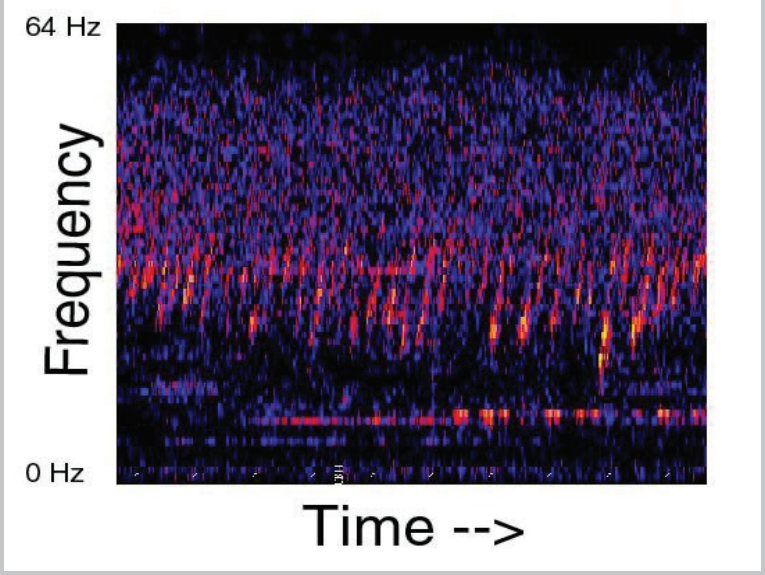
The sound's source was roughly triangulated to a remote point in the south Pacific Ocean west of the southern tip of South America, and the sound was detected several times by the Equatorial Pacific Ocean autonomous hydrophone array.



UPSWEEP

Upsweep is an unidentified sound detected on the American NOAA's equatorial autonomous hydrophone arrays. This sound was present when the Pacific Marine Environmental Laboratory began recording its sound surveillance system SOSUS in August, 1991. It consists of a long train of narrow-band upsweeping sounds of several seconds in duration each. The source level is high enough to be recorded throughout the Pacific.

The sound appears to be seasonal, generally reaching peaks in spring and autumn, but it is unclear whether this is due to changes in the source or seasonal changes in the propagation environment. The source can be roughly located at 54°S 140°W, near the location of inferred volcanic seismicity, but the origin of the sound is unresolved. The overall source level has been declining since 1991, but the sounds can still be detected on NOAA's equatorial autonomous hydrophone arrays.

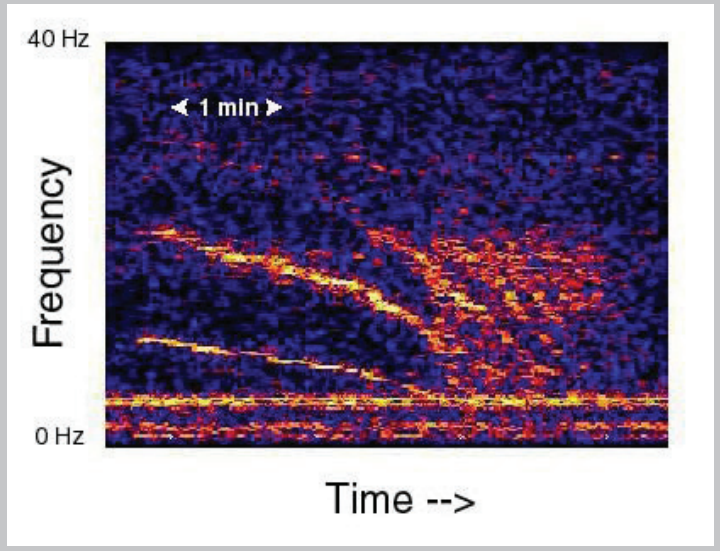


SLOW DOWN

Slow Down is a sound recorded on May 19, 1997, in the Equatorial Pacific Ocean by the U.S. National Oceanic and Atmospheric Administration. The source of the sound was most likely a large iceberg as it became grounded.

The name was given because the sound slowly decreases in frequency over about 7 minutes. It was recorded using an autonomous hydrophone array. The sound has been picked up several times each year since 1997. One of the hypotheses on the origin of the sound is moving ice in Antarctica. Sound spectrograms of vibrations caused by friction closely resemble the spectrogram of the Slow Down. This suggests the source of the sound could have been caused by the friction between a large ice sheet moving over land.

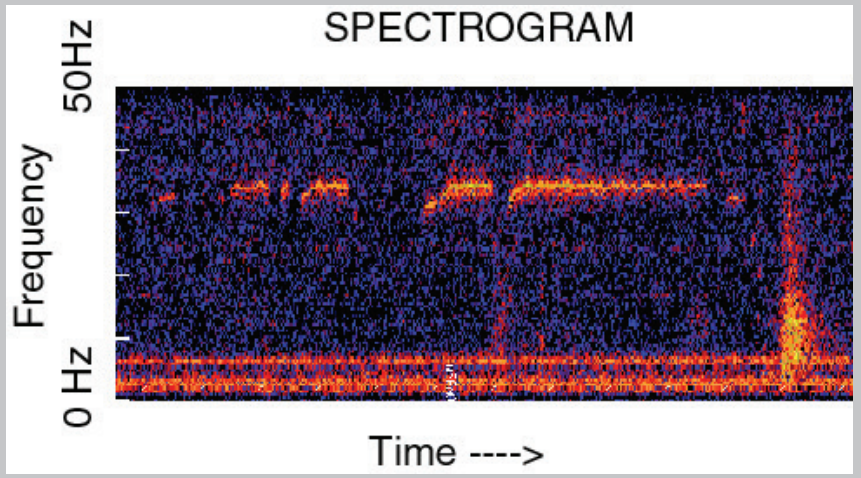
SOURCE:
https://en.wikipedia.org/wiki/List_of_unexplained_sounds



THE TRAIN

The Train is the name given to a sound recorded on March 5, 1997 on the Equatorial Pacific Ocean autonomous hydrophone array. The sound rises to a quasi-steady frequency. According to the NOAA, the origin of the sound is most likely generated by a very large iceberg grounded in the Ross Sea, near Cape Adare.

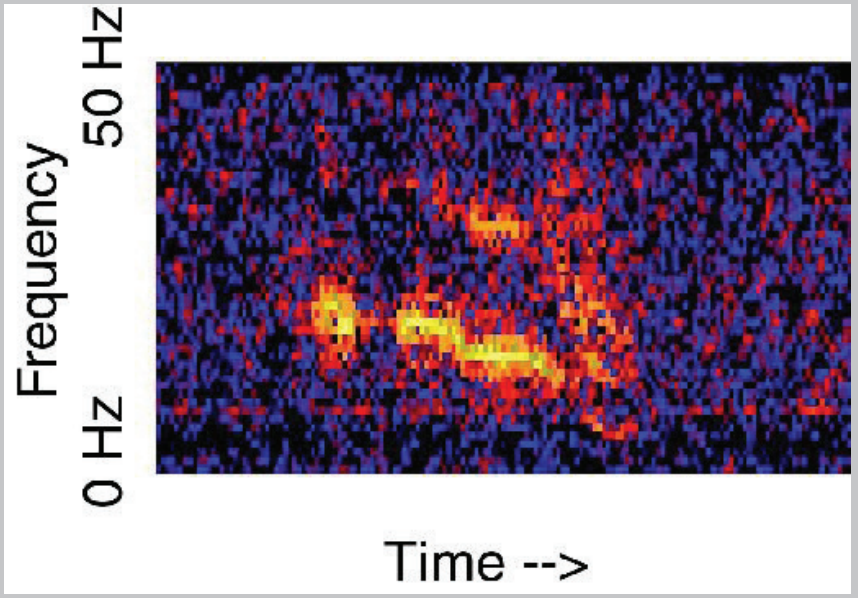
SOURCE:
https://en.wikipedia.org/wiki/List_of_unexplained_sounds



JULIA

Julia is a sound recorded on March 1, 1999 by the U.S. National Oceanic and Atmospheric Administration (NOAA). NOAA said the source of the sound was most likely a large iceberg that had run aground off Antarctica. It was loud enough to be heard over the entire Equatorial Pacific Ocean autonomous hydrophone array. The unidentified sound lasted for about 15 seconds. Due to the uncertainty of the arrival azimuth, the point of origin could be between Bransfield Straits and Cape Adare.

SOURCE:
https://en.wikipedia.org/wiki/List_of_unexplained_sounds



WHISTLE

According to NOAA, the Whistle is similar to volcanogenic sounds previously recorded in the Mariana volcanic arc of the Pacific ocean, but since it was only recorded on one hydrophone rather than the three required to triangulate a location, it is considered “unidentified”.

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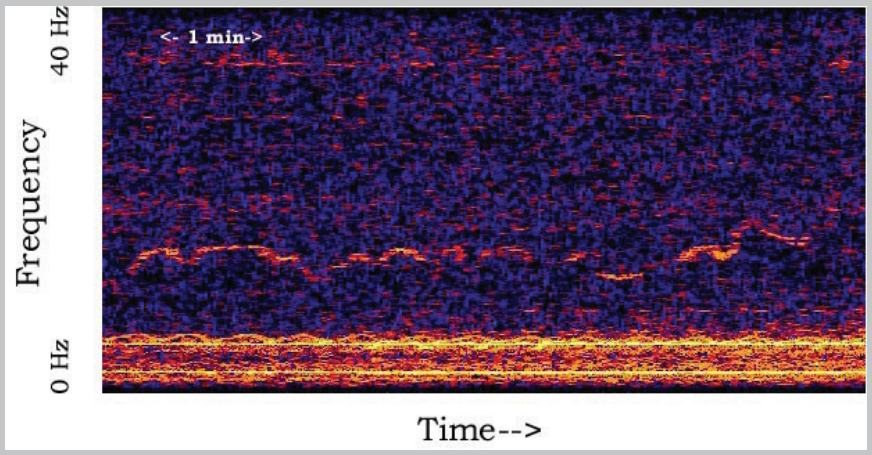
https://en.wikipedia.org/wiki/List_of_unexplained_sounds



The sea probably lets each shore believe

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she flows that way specifically.