

where a helpful storm area might be centered.

The converse of this story is one from World War days, of a pair of Zeppelins that started from their German base in what looked like good flying-and-bombing weather, but ran into a storm of which they had no warning and were both lost in the North Sea.

In old sailing-ship days, a fleet about to go into battle sought to get the "weather gage" of its opponent, that is, to maneuver into a position to his windward. The geographic position of England and France would seem to give them a permanent weather gage of Germany.

*Science News Letter, October 14, 1939*

ZOOLOGY

### Three Sets of Whale Twins Reported in 1938-9 Catch

**W**HALE stories, via U. S. Bureau of Fisheries (although whale is mammal): Three sets of twins, rare events in whale family life, were found in the catch of U. S. whaling vessels during the 1938-39 season.

Yet unborn, two sets were finback whales and one the blue kind.

Two 96-foot whales were harpooned in the Antarctic. More oil production per foot of whale was obtained in Antarctic and Australian waters. A total of 7,156,700 gallons of oil was processed from 2,204 whales, along with 216 tons of bone and 396 tons of meat fertilizer. The total value of catch, estimated conservatively: \$3,250,000.

*Science News Letter, October 14, 1939*

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RADIO

# Europe's Radio Broadcasts Can Be Turned to Bedlam

## Interference Would Work Best for Nations Having Weak Transmitters; Reception Best in North-South Direction

**E**UROPE'S powerful propaganda by radio between warring nations can be turned into a complete Babel of interference at any instant. This potent "weapon" in the conflict can easily be converted into a completely useless tool.

This is the verdict of radio experts at the National Bureau of Standards when informed of interference, or "radio black-outs," which cut off British news. Powerful band music from an unidentified station blocked out much of an important announcement for European listeners.

All that is needed to convert Europe's radio waves into a bedlam of squeals and whistles is for some small transmitter, in any European nation, to broadcast on the same frequency as some other station. The resulting interference destroys the effectiveness of the legitimate station.

Two can play this war of interference, of course, but it works best for a country having only weak and low cost transmitters in contrast to the elaborate powerful units of Germany, Great Britain, France and Italy.

The broadcasts of the United States to South America, a new tool of the nation to combat European propaganda broadcasts there, cannot be effectively blocked off by the interference, "black-out" technique, the government experts state. The reason is the fortunate habit of short radio waves of varying in transmission effectiveness with zones of day and night over the earth.

It will be possible for stations in the U. S. to employ short wavelengths in the daylight hours which can not be used in over-the-ocean transmission from Europe where it is then nighttime.

Moreover, in general, long-distance radio transmission is better in north-south directions than in the east-west line because the waves are moving parallel to the earth's magnetic field.

Broadcasts from Europe to America on shortwave, especially, have occasional troubles from this cause because the "great circle" path of the radio signals

passes very close to the north magnetic pole of the earth which is far south of the geographical pole. Disturbances in the radio reflecting layers of the ionosphere are much greater near the magnetic poles than elsewhere.

*Science News Letter, October 14, 1939*

GENERAL SCIENCE

### British Science Journal Is a War Casualty

**S**CIENCE PROGRESS, a quarterly review of scientific thought, work and affairs, now in its 34th volume, is suspending publication with its October issue because of the war conditions. This leading British science journal was edited until his death by Sir Ronald Ross, discoverer of the transmission of malaria by mosquitoes.

*Science News Letter, October 14, 1939*

GENERAL SCIENCE

### War Takes the Soap From Babies' Gift Layettes

**T**HE LAYETTES being sent by the American Red Cross to Europe's refugee babies will contain no baby soap. Soap is contraband.

*Science News Letter, October 14, 1939*

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