

OCEANOGRAPHY

# Ice Patrol Season Begins With 4 U. S. Vessels on Duty

## Patrol Is Handicapped by War Because They Cannot Base in Canada and Because They Lack Cooperation

THE 1940 ice patrol season is beginning in the North Atlantic, with four U. S. Coast Guard cutters on duty. The Chelan, Cayuga and Ponchartrain will ply the steamer tracks, looking for icebergs and other menaces to navigation, while the General Greene will gather oceanographic and other scientific data.

Because of the European war, difficulties have been multiplied for the Ice Patrol. In normal times, its vessels base at St. John's, Newfoundland, thus saving a great deal of time and fuel in getting to and from their stations at sea. However, because the Chelan, Cayuga and Ponchartrain are armed, it has been considered best for them to keep away from ports of belligerent powers, and they will base in Boston and New York. Only the General Greene, whose exceedingly light armament "doesn't count," will continue to use the Newfoundland port.

Even more serious will be the absence of cooperation by freight and passenger vessels. In peace time, any ship that sights an iceberg radios its location at once to the Ice Patrol vessel on duty, which collates all such information and sends out general ice broadcasts for the benefit of all shipping. Now, however, all shipping of belligerent powers, and most neutral vessels as well, are keeping a strict radio silence lest they betray their position to prowling Nazi submarines. So the Ice Patrol will have to find all its own icebergs.

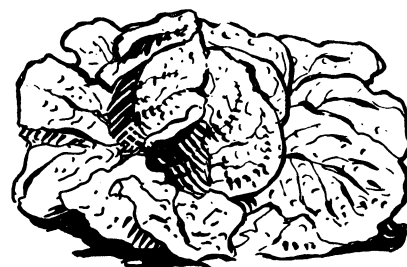
The radio silence will help in just one

respect. Ordinarily it is necessary to request all shipping to suspend radio sending while the ice broadcasts are on the air. Now they have the whole air to themselves without asking for it. Only, they probably won't have much to put on the air.

From such meager information as it has been possible to obtain so far, it appears that the 1940 ice season is starting in more or less normal fashion. Very little ice has been reported. Last spring was one of the heaviest ice years of record; the Ice Patrol had to go on duty nearly a month early. It is fervently hoped that 1940 will be a low ice year, because with cooperation from shipping wiped out by the war, and convoys taking unorthodox tracks to keep away from possible submarines, the menace from any given iceberg will be increased many fold.

In addition to the ice broadcasts, the vessels of the Ice Patrol also send frequent weather reports to the U. S. Weather Bureau. This part of their activity is not particularly relished by the British Admiralty, because Britain is doing its best to maintain a "weather blockade" of Germany, and of course Nazi antennae can also pick up these North Atlantic weather reports. However, since the information is particularly desired in this country for its usefulness to the navigation of the clipper planes, the messages will continue to be sent, regardless of objections.

*Science News Letter, March 9, 1940*



### Strong as Water

**W**ATER, shapeless water, plays an important role in maintaining shape in plants.

An unwilted, healthy leaf or green shoot is crammed almost to bursting with water, which keeps each tiny, individual cell distended and rigid with internal pressure, just as a football or a rubber tire is kept distended by the internal pressure of the air in it.

In plants or parts of plants that contain little of wood and much of pulpy tissue, it is this water-pressure that serves almost exclusively to keep up the shape. Some very juicy leaves, like those of fresh lettuce or nasturtium, can have water wrung out of them by simply squeezing in the hands; and in some fruits the pressure of the contained juice is so great that it will flow of itself if the skin is broken.

When such a plant or plant part loses water by evaporation and wilts, the effect is very similar to that of a slow leak in a rubber tire. The first visible effect is a slight drooping and loss of stiffness, followed by an apparently total collapse.

But even when a leaf or stem is wholly wilted there is still water in it, just as there is still air in a flat tire. Limp as it is, it is still moist, and while wilting may come in only a few hours, final drying to a crisp, completely withered condition usually takes days. The less water there is left, the harder it seems to be to get rid of it.

Even after the plant material may seem to be quite dry, there is still water left, which sticks tenaciously, and cannot be gotten rid of except by heating in an oven. Well-cured hay, a thing on whose dryness proverbs have been built, will lose about forty per cent of its weight

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