



► ON NATIONAL HOLIDAYS, especially Independence Day, we are wont to swell our chests with pride at the thought of him, while our bell-tongued orators laud him above the clouds. Yet even when they laud him as a "glorious bird of prey" they are indicting him. For by very necessity, a bird or beast of prey must attack animals smaller or weaker than itself. And as a nation we have instinctively abhorred such a course; our history books are rather shamefaced about the time or two we have done that kind of thing.

Anyway, the bald eagle is not primarily a bird of prey. True, it does catch some of its food alive—though the stories of eagles carrying off children do not seem well founded. But to a very large extent the bald eagle feeds on what it finds already dead. It does not go in for carrion ripe to the taste of a buzzard, but if it finds a dead rabbit or lamb fairly fresh it will leave only scraps for its more ignoble distant cousin. One of Audubon's finest plates shows a bald eagle with its talons in a huge catfish that is evidently quite dead. That is not imagination: Audubon saw the things he painted.

These somewhat plebian traits of the bald eagle were well known to our earlier scientists. It was not they who chose him as the national emblem, but the politicians of our earlier day. Benjamin Franklin, who was a real scientist as well as a real statesman, protested vigorously but to no avail; he wanted the turkey-gobbler emblazoned on the U. S. Great Seal and coins instead.

It made no difference: the heraldic eagle was popular, and will undoubtedly remain where he is, so long as we are a nation. We'll overlook his shortcomings, just as we find excuses for the faults and

peccadillos of our heroes.

But while we enshrine this largely imaginary eagle, we are doing our utmost to exterminate the real ones. Worst blow was the felling of the primeval forest that once covered much of this land; eagles choose dead high trees as nest sites when they can, and few such sites remain now.

Nowadays the eagle is a harried and hunted bird in one of the few places where he survives in number—the Alaska coast. Fisheries men and sheepmen alike malign him, and having given him a bad name they shoot him for it whenever they can.

We Americans are a strangely self-contradictory people.

Science News Letter, June 29, 1946

RADIO

Shoran Will Help Chart the World

► A WARTIME RADAR navigation device, used to assist bombing through overcast, will now be employed in charting the earth's surface. Shoran, the electronic device is called; the word is coined from "short-range" radar.

Lt. Col. Carl I. Aslakson of the Army Air Forces has declared that with Shoran "it would be possible to establish a geo-

detic control network of the entire world and plot the distance of every point within a few feet of every other point on the globe."

The method has been checked and proved in the Denver area, and in addition, has been used by the U. S. Coast and Geodetic Survey in surveys of the ocean bottom in Alaska. It will soon be used to chart the coast of Maine, and also in the Caribbean area.

Shoran makes use of high frequency radio waves which are transmitted and measured in terms of miles, and down to feet where necessary. As developed for bombing, the bomber was equipped with two transmitters which sent pulse signals to two ground stations. These, located at least 100 miles apart, received the signals and re-broadcast them back to the plane. The interval of time between the sending and the receiving of the signals was measured electronically and translated into distance.

With the distance between the stations known, and the distance from each determined by the radio signals, the mathematical method of triangulation accurately gave the plane its location. The pilot had no figuring to do; the triangulation was automatically computed by electronic devices.

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