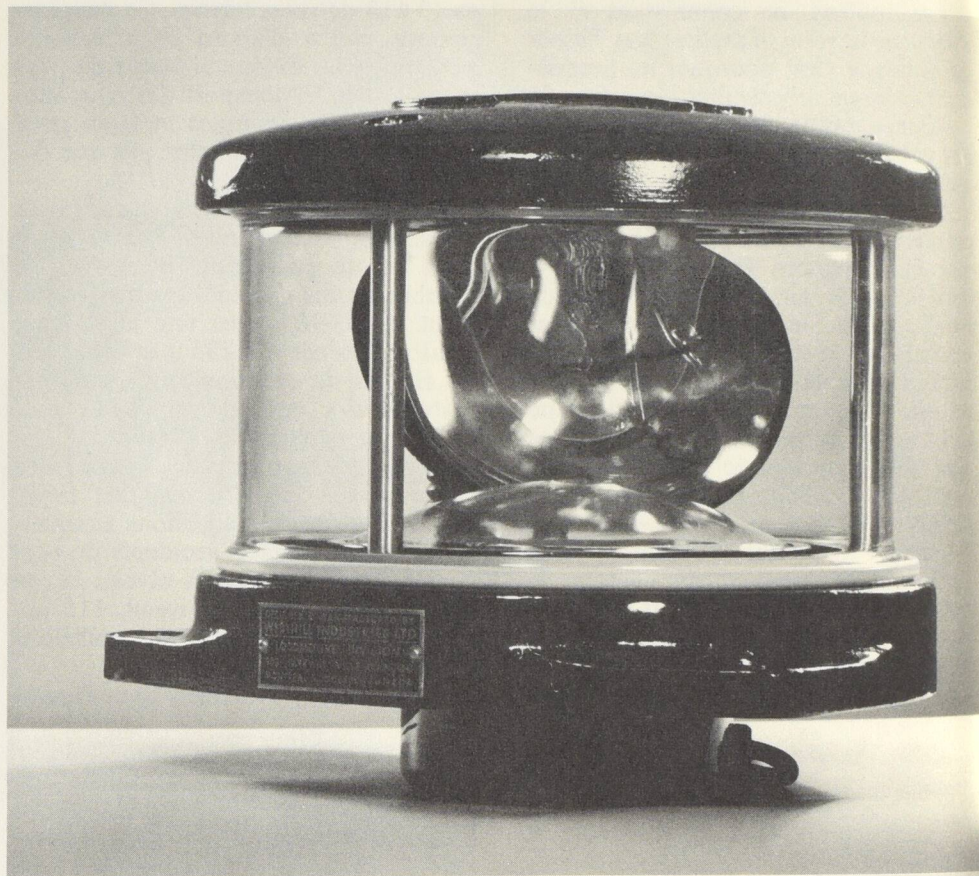


railway beacon



NRC's high-powered train beacon.

Le puissant phare tournant du CNRC.

trains, engineers of the National Research Council of Canada's Division of Mechanical Engineering have developed a railroad locomotive warning beacon. Its lamp brightness, ruggedness of construction and its ability to impinge on a viewer's peripheral vision and thus command attention is such that the Division feels it is superior to any locomotive beacon on the market today.

The prototype instrument was developed in the Manufacturing Technology Centre of the Division of Mechanical Engineering after a request was made for research assistance into railroad beacons by Canada's two major railways and the Federal Board of Transport Commissioners, now the Canadian Transport Commission. Westhill Industries of Montreal, a metal processing firm whose main interest is manufacturing aerospace products, was awarded a competitive contract for production of an initial order of 50

units to be used for experimental test purposes.

The two major Canadian railroads, Canadian Pacific and Canadian National Railways, have been evaluating the Westhill-produced version (Mark I and II) for the last two years. Initial tests showed that the early version of the beacon was too high to clear railway overhaul freight sheds and had to be modified.

Both railways are anxious to take steps to reduce railway level crossing accidents. This is especially so since on economic grounds it is not possible to erect overpasses or flashing lights at the multitude of level crossings in Canada.

The brightness of the NRC lamp is greater than any on the market today. The usual gull-wing type reflector which splits a beam of light into two parts and thereby halves its intensity has been eliminated. Through the use of a single reflector the lamp is able

to transmit total available candlepower.

E. S. Moore, Head of the Manufacturing Technology Centre, feels the best aspect of the new lamp is the fact that it has been engineered with special emphasis on biological effects of the sweeping beam of light on an observer. Tests were undertaken to determine the rate of sweep for the beacon that would best command attention.

"This beacon registers strongly on your peripheral vision," Mr. Moore says. "It literally screams at you that a train is coming."

Armand Boisclair, President of Westhill Industries, estimates the market potential in Canada is some 5,000 units with a unit selling price of \$125. Preventing one accident like the 1967 schoolbus-train collision at Dorion, Que., that took 26 children's lives, would pay for all of the beacons in one shot, he says.