

It has undertaken to meet very substantial additional costs that its engineers consider to be necessary to provide the protection of this site against ice accumulation. These various costs alone will total something over \$50 million.

"There will obviously be a great deal to be done by the City of Montreal and the Province of Quebec and the World Fair Corporation within their respective jurisdictions to provide services, utilities, the access that is needed, the bridges to link this site with the mainland and all the other ancillary developments that are necessary.

"It is essential, therefore, that there should be a clear understanding, as to exactly what is to be done, by whom it is to be done, what the costs will be and who will meet them. For this reason I would like to suggest to my associates on the platform, the Prime Minister of Quebec and the Mayor of Montreal, that a meeting should be arranged very soon to ensure that every detail and every aspect of the entire project have been provided for.

"In an agreement of this kind, each of the three levels of government will know exactly what its responsibilities are as the work proceeds; what its own share of the cost will be of the things that are necessary or desirable.

"I join wholeheartedly in all the high hopes and great expectations which are held for the complete success of this bold and imaginative concept. I know you will agree, however, that such success will be the reward not only of zeal and imagination, but also of efficient organization and hard co-operative work.

"Clear and detailed agreement between all concerned on practical matters will help join inspiration and imagination to concrete achievement.

"We must anticipate and not be overtaken by events. Each must assess what each can do in the time that is available and that is all too short for all the work that has to be done."

NEW WEATHER SHIP

A contract amounting to over \$8 million has been awarded a drydock firm of North Vancouver, British Columbia, to build a turbo-electric, twin-screw weather and oceanographic vessel. The ship will serve with the Canadian Coast Guard in the Pacific.

It will be of 5,350 tons load displacement, the Coast Guard's largest vessel, replacing one of the existing weather ships manning Ocean Station "Papa", 900 miles west of the British Columbia coast. Its equipment will make it one of the most up-to-date craft of its kind in the world.

The new ship will be just over 404 feet long, with a 50-foot beam and a load draft of 17 feet. It is expected that it will be completed in 1966. Its range will be 8,400 nautical miles at 14 knots.

NRC TESTS

In order to provide for the specialized duties of the various scientific groups that will work aboard the new ship, extensive model testing and planning went into the design to produce a working platform as stable as possible for research activities. Anti-

rolling tanks will be fitted into the main 'tween deck to reduce rolling during heavy weather and a bow-water jet-reaction system for manoeuvring will assist in steering at slow speeds.

To provide for the maximum degree of efficiency of meteorological instruments, the National Research Council undertook wind-tunnel tests involving the design of the vessel's superstructure. A helicopter deck and a telescopic helicopter hangar will be part of the special equipment.

MOTIVE POWER

A propulsion system consisting of turbo-electric power with oil-fired boilers will provide the quiet operation needed for a vessel housing many scientific instruments. Its speed will be such that it will be able to proceed to and from its station in the shortest possible economical time, and will also be an important factor when the ship is involved in search-and-rescue duties.

Because it will be "on station" for about six weeks at a time, accommodation for the crew, officers and scientific personnel will be of a high order, with provision of single cabins for all on board. Hospital facilities and recreation rooms will be provided.

The communications equipment will be of latest type, both within the vessel and for ship-to-shore use. The navigation equipment will also be of most modern design, including two marine radars, Loran, echo depth sounders and course recorder. The scientific parties working aboard the vessel will have special laboratories to serve their requirements and the vessel will be fully air-conditioned.

IRON ORE

Shipments of iron ore from Canadian mines in June amounted to 3,791,357 tons, an increase of 8.3 per cent from the May total of 3,501,963 tons but a decrease of 10.5 per cent from last year's June total of 4,234,517 tons. Gains from a year earlier were common to all previous months of the year except May, and shipments in the January-June period rose 4.3 per cent, to 10,807,412 tons from 10,364,932 in the first half of 1962. Ore shipped for export declined in June to 3,417,296 tons from 3,902,298 a year earlier and in the January-June period to 9,135,977 tons from 9,222,328 a year ago, while ore shipped to Canadian consumers increased in the month to 374,061 tons from 332,219 and in the half year to 1,671,435 tons from 1,142,604.

Iron-ore shipments were larger in June and the January-June period this year than last in Alberta and British Columbia and smaller in both periods from Ontario; totals were down in the month and up in the half year from Newfoundland and Quebec.

June shipments of iron ore were: Newfoundland, 1,129,354 tons (1,185,540 in June last year); Quebec, 1,566,549 (1,804,135); Ontario, 905,829 (1,079,476); and Alberta and British Columbia, 189,625 (165,366). January-June totals: Newfoundland, 2,694,402 tons (2,423,861 a year ago); Quebec, 4,624,339 (4,541,199); Ontario, 2,565,650 (2,751,910); and Alberta and British Columbia, 923,021 (647,962).