

The Argentia service, operated by Canadian National for the federal Department of Transport, will augment the existing Canadian National ferry service to Newfoundland, which now runs between North Sydney and Port-aux-Basques.

The new service, which is a direct link between Newfoundland's Avalon Peninsula and the mainland, will provide an alternative route to the overland journey of 580 miles to reach the eastern part of the island.

The *Ambrose Shea*, a luxurious ship with every modern comfort named after one of Newfoundland's representatives at the Confederation Conference of 1864, was built last year for the Department of Transport at a cost of about \$13 million and delivered to Canadian National in December. She has 260 berths arranged in 10 first class, 18 two-berth, 52 three-berth and 12 four-berth cabins. There is also accommodation for 50 deck-passengers. The ship has a speed of 17 knots, has been built with full ice-breaking capabilities and is fitted with a bow thruster for added manoeuvrability.

MEETING THE TRANSLATOR SHORTAGE

The Federal Government is attempting to meet a severe shortage of French-English translators with a three-year programme of study at the University of Montreal. The translators' course, sponsored jointly by the Public Service Commission of Canada and the Department of the Secretary of State, will be open to graduates from recognized universities and classical colleges.

Successful candidates will receive free tuition, travel expenses and yearly grants of \$1,900 to defray their living expenses. They will receive salaries during the summer while taking on-the-job training with the Translation Bureau of the Secretary of State Department.

Graduates will be appointed to the staff of the Department of the Secretary of State, where they will be expected to work for three years.

SOVIET-CANADA SCIENCE BOOK

A volume completed last year and just published, described as "a unique collaboration of Canadian and Russian scientists", is the work of four Canadians, two of them members of the staff of the Chalk River Nuclear Laboratories of Atomic Energy of Canada Limited, and four Russians of the I.V. Kurchatov Institute of Atomic Energy, Moscow.

Entitled *A Compendium of Thermal-Neutron-Capture Gamma-ray Measurements, Part I*, it will never make a best-seller list, except perhaps among nuclear physicists, reactor technologists, radiochemists, biochemists, those engaged in radiation analysis, and prospectors. The publication consists of tables of energies and intensities of resolved gamma rays and internal conversion electrons for elements up to an atomic number of 46.

CRNL participants are Dr. G.A. Bartholomew and Mrs. K.M. Eastwood. Dr. Bartholomew is head of

the Neutron Physics Branch of the Physics Division and Mrs. Eastwood is on his staff. The other Canadians are Professor Sergio Monaro of the Physics Department, University of Montreal, and Audrey Doveika of the Physics Department, McMaster University. Professors L.V. Groshev, A.M. Demidov, V.I. Pelekhov and L.L. Sokolovshii are the Russian writers. Professor Groshev has long been a world leader in this area of scientific research.

Dr. Bartholomew explains the sequence of events leading up to the collaboration of scientists in the two countries:

"Katharine Way, the editor of *Nuclear Data*, published in New York and London, asked me to update our earlier publication. When I was in Russia in the summer of 1966 I learned that they were about to publish a revision. We arranged to exchange our data, and to produce a joint compendium."

The compendium is in two parts; the second, covering elements with an atomic number greater than 46 will be published later this year.

REMEDY FOR TOUGH MEAT

A professor at Laval University, Quebec, has discovered a new technique for making beef more tender. Dr. J.R. Moreau, who was carrying out research under the sponsorship of the Research Council of the Department of Agriculture and Colonization of the Province of Quebec, has improved considerably the proteolytic-enzymes method of beef "tenderizing" which is used with varying success in Australia, Finland, the United States and Canada.

Enzymes are soluble organic substances which speed up certain reactions; proteolytic enzymes make the beef more tender but, to obtain the best results, they must penetrate the meat deeply and evenly and precise amounts must be determined for each kind of meat.

EARLIER METHODS

Until Dr. Moreau perfected the new process, the problem of "tenderizing" meat had been solved imperfectly in two ways: the less satisfactory was the sprinkling of proteolytic enzymes over the meat, while the more effective was to inject enzymes through a hollow needle into the jugular vein of the animal just before slaughter. Theoretically, the latter method should have impregnated all the meat through the circulation of the blood before the animal died but, since slaughtering took place immediately after injection, the enzymes were distributed poorly. Also, this method did not allow for the varying dosage needed for the different parts of the animal. The tougher parts require more concentrated treatment and cuts intended for slow cooking require different quantities than those intended for broiling.

The process discovered by Dr. Moreau gives much better results. Each cut of meat, depending on its origin and quality, is treated with the exact amount of "tenderizer" before being delivered to market and the injection is made by a new method which ensures perfect diffusion of the liquid.