

Northern Electric and Northern Telecom.  
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## Northern Electric Puts Canada Into Commercial Space Picture

OTTAWA (CP) — A small Northern Electric Co. Ltd. plant that makes gold-plated electronic brains for communications satellites is putting Canada firmly in the world's commercial race into space.

"Satellite communication is just at the stage of the Model A Ford," says plant manager Maurice Beresford, who supervises the space-age assembly line of about 100 workers that already has grown into a \$10-million-a-year operation.

Northern Electric, a Bell Canada subsidiary more commonly known for its manufacture of telephone equipment, got into the space business five years ago by winning the contract for this country's three Anik satellites, the world's first practical national domestic system which has been relaying electronic signals from coast to coast for the year.

The Aniks, financed by federal government and industry funds, cost about \$10 million each to build and another \$5 to \$7 million to launch by special arrangement from Florida.

William Barrie, Northern Electric's marketing manager for satellite communications, says Russia has a domestic system but it is far from successful. The Soviets and Americans also have military satellite systems.

Two Aniks are whirling 23,000 miles above the equator and a third is on stand-by in case one of the orbiting satellites wears out before its expected seven-year life span.

The unpretentious Northern Electric plant at Lucerne, Que., just across the river from Ottawa, was built in 1969 to manufacture the delicate, complex communications package for the three Aniks. It is nearing completion of its second of three Westar satellite sets for Western Union in the United States.

The plant has or expects orders for at least nine more communications sets from other private corporations recently authorized by the U.S. Federal Communications Commission to put up commercial satellites.

Northern Electric also makes some parts for the Early Bird satellites of Intelsat, a 90-nation international consortium including Canada, which bounce TV and other communications across the Atlantic and Pacific oceans.

It was Northern Electric equipment that brought President Richard Nixon's historic visit to China onto North American television screens.

Other countries are expected to get into the domestic satellite business soon to extend communications into remote areas such as the widely scattered villages of India, isolated communities in the South American jungles and the far-flung islands of Malaysia.

Northern Electric makes the "flight hardware" communications packages under a sub-contract from Hughes Aircraft Co. of El Segundo, Calif., which last month announced it had contracts for another \$150 million worth of new domestic commercial

satellites to serve continental United States, Alaska, Hawaii and Puerto Rico. Northern Electric expects a substantial share of this business.

"This is the largest single injection of private capital into the space industry and marks a turning point in the development of a substantial non-government market for spacecraft and booster manufacturers," the Hughes firm said of its new orders.

The boom in commercial satellites was also welcome news to Northern Electric, which feared after the Anik project ended that it might have to abandon its space

work for lack of business. Its skilled work force dipped to about 50, but the Westar contract saved the day.

To Mr. Beresford and Mr. Barrie, who now foresee a total of \$100 million worth of contracts for Northern through the 1970s, this is just a beginning in what could become a revolution in world communications.

"It's all in the future," says Mr. Barrie, and his firm is on the ground floor by virtue of winning the contract for Aniks. "We're in a cozy position."

"It was a real coup" for Canada to launch the first domestic commercial satellite system, he added.

The day will come, Mr. Barrie and Mr. Beresford predict, when educational TV programs in a dozen or more dialects will be beamed down from a single satellite to remote villages. Oil pipelines in the inaccessible Arctic will be monitored and checked for leaks from a satellite. Snowstorms and other disturbances will be tracked by satellite, and "maybe even mosquito density," says Mr. Beresford.

Next: Satellite pioneer predicts communications revolution.

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