



Anik B, Canada's newest commercial domestic communications satellite, uses technology developed by HERMES. It is the first commercial satellite to use both the 6/4-GHz and the 14/12-GHz bands.

SATELLITES FOR THE 1980s

The Anik C and Anik D series are planned for commercial operation in the Fixed Satellite Service in the 1980s. Telesat's projected expenditure of \$400 million over the next ten years on the Anik C series includes three satellites scheduled for launch between 1981 and 1983. Their 14/12-GHz transponder channels will have characteristics similar to those of Anik B. Bids are being reviewed for the Anik D series, which will replace the 6/4-GHz channels of Anik B and the Anik A series as they wear out.

The Anik C and Anik D satellites are designed to be placed in orbit by either NASA Delta rockets or the NASA Space Transportation System (STS), better known as the Space Shuttle.

Telesat will become one of the first commercial users of this new mode of space cargo delivery if it is ready in time for the launching of Anik C-1 in March 1981.

The Space Shuttle orbiter is a combination aircraft and rocket spaceship. It will transport people and equipment into space, then return to earth. Each orbiter vehicle should be able to make at least 100 such trips, greatly reducing the cost of placing future communications spacecraft into orbit. A Canadian industrial team is designing, testing and constructing the shuttle's Remote Manipulator System (RMS). The RMS is a complex, arm-like device, 15.2 metres long. It will remove a satellite or other payload from the cargo bay of the orbiter vehicle and place it in space. It will also retrieve recoverable satellites.



SPAR Aerospace Products

The Remote Manipulator System that will lift satellites and other cargo in and out of NASA's Space Shuttle (top left) is being designed and built by SPAR Aerospace Products Ltd., Toronto. The RMS arm, which will be too light to move its own weight under earth's gravity, will in space move objects that weigh as much as 65,000 pounds. Scientists use computer mathematical models, instead of mockups (bottom left), for most testing. The simulation of the shuttle's crew compartment (below) is used for training.



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