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Experiment F-2-2

"Radio Broadcast"

APPLICATION FOR RADIO BROADCASTING

A.C.H. Lyons

Canadian Broadcasting Corporation

1976 ?

CTS EXPERIMENT F-2-2

Application for Radio Broadcasting

Sponsored by The Canadian Broadcasting Corporation

OBJECTIVE . . . . Twofold: Firstly, to test the technical feasibility of the CTS radio broadcast system for the transmission of program material from one remote community to another; secondly, to provide a demonstration of satellite technology to the delegates at the "Second Symposium of Radio in the 80's", which was held in Ottawa during the week of June 6 - 11 1976. This Conference was attended by representatives of EBU (European Broadcasting Union) and other broadcasting organizations around the world.

BACKGROUND . . . . The CBC utilizes the commercial Anik satellite for distribution of a northern radio network to 12 Inuit communities in the Northwest Territories. The English radio network, originating in Toronto is fed via one satellite channel to the CBC studios in Frobisher Bay where it is mixed with other English and native language programming, broadcast locally, and transmitted using another satellite channel to the other 11 Inuit communities.

SET-UP . . . . . 1) A one meter CTS terminal was located in Frobisher Bay and connected by local loop to the CBC studios.

2) Another one meter CTS terminal was located in Ottawa outside the Conference Centre and connected to a small console and studio set-up in the demonstration area inside the Conference Centre.

3) The Telesat 15' transportable earth station was also located outside the Conference Centre. This terminal was tuned to receive the regular satellite transmission from Frobisher Bay and was connected to speakers in the demonstration area.

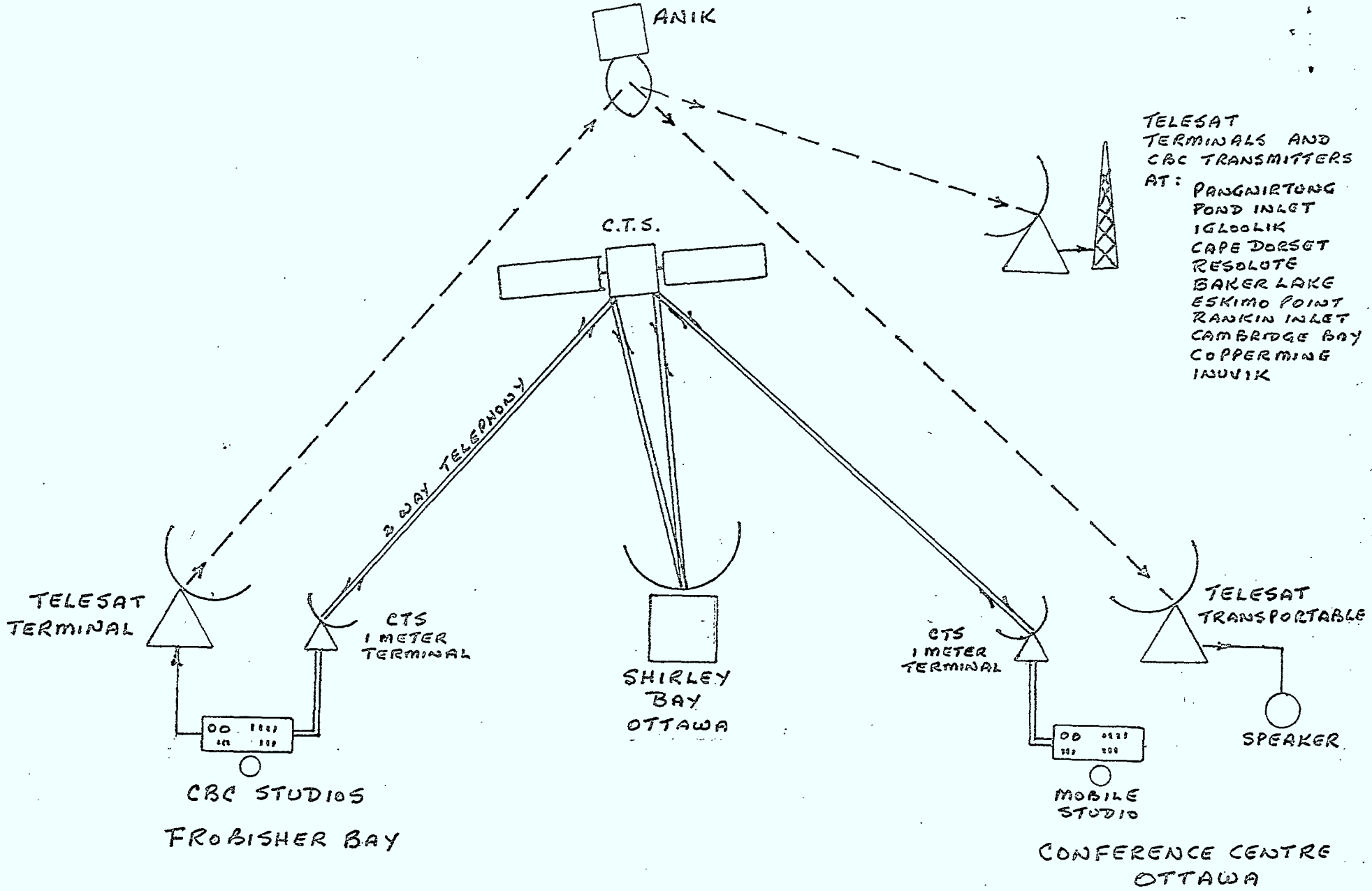
4) A normal long distance telephone line was established between the Conference Centre studio and the Frobisher Bay studio to provide an off-air communications and cueing facility.

OPERATION . . . . An Inuit announcer in Frobisher Bay conducted an interview and discussion with two Inuit guests at the Ottawa Conference Centre using the two way telephony capability of the one meter terminals and the Hermes satellite. This interview was incorporated as a live insert in the regular program being broadcast by the Frobisher Bay station and fed via Anik satellite to the CBC northern radio network. The Telesat transportable earth station in Ottawa picked up this program and fed it into speakers in the Conference Centre, so that the delegates could hear both sides of the discussion as well as the balance of the program before and after the interview. The language used throughout was Inuktitut.

No signal strength or other technical measurements were made by the CBC since this was basically a programming experiment. Everyone concerned, however, agreed that the audio quality was exceptionally good and quite acceptable for broadcasting purposes.

The only negative aspect of the operation of the satellite and terminals was the lack of a secondary circuit for control and interstation talkback which is necessary for the production of a live insert in a public broadcast. As mentioned earlier, this was overcome by the use of a long distance telephone circuit between the two control rooms. (Normal telephone service in and out of Frobisher Bay incidentally is also via Anik satellite.)

The most interesting and appealing feature of this experiment to the CBC was the success of the small one meter terminals. When the time comes that the commercial satellites incorporate this technology, it will undoubtedly be used by the Corporation to accomplish much of its radio distribution requirements.


ANIK
C.T.S.
TELESAT TERMINALS AND CBC TRANSMITTERS AT:
PANGNIRTUNG
POND INLET
IGLOOLIK
CAPE DORSET
RESOLUTE
BAKER LAKE
ESKIMO POINT
RANKIN INLET
CAMBRIDGE BAY
COPPERMINE
INUVIK
2 WAY TELEPHONY
TELESAT TERMINAL
CTS 1 METER TERMINAL
SHIRLEY BAY OTTAWA
CTS 1 METER TERMINAL
TELESAT TRANSPORTABLE
SPEAKER
CBC STUDIOS
FROBISHER BAY
MOBILE STUDIO
CONFERENCE CENTRE OTTAWA