A REPORT

REGARDING THE ESTABLISHMENT OF AN INSTRUCTIONAL TELEVISION FIXED SERVICE SYSTEM IN THE WILLIAMSBURG/HAMPTON AREA

REPORTED TO

THE GOVERNOR

AND

GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 10

COMMONWEALTH OF VIRGINIA
Department of Purchases and Supply
Richmond
1976

COMMONWEALTH of VIRGINIA

Virginia Public Telecommunications Council
902 Ninth Street Office Building
Richmond, 23219
(804) 770-3153

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October 31, 1975

The Honorable Mills E. Godwin, Governor
State Capitol
Richmond, Virginia 23219

Dear Governor Godwin:

Pursuant to the House Joint Resolution No. 238 of February 7, 1975, the Virginia Public Telecommunications Council has reviewed the pertinent technical findings of the Center for Excellence, Inc., Williamsburg, Virginia, regarding the establishment of an Instructional Television Fixed Service (ITFS) distribution system in the Williamsburg/Hampton area, for the purpose of providing diagnostic and instructional services for profoundly or severely handicapped youth.

The Virginia Public Telecommunications Council's review of the pertinent findings (see attached documents) indicates that the proposed program is technically feasible, if the following assumptions on the part of the Center for Excellence prove correct:

1) the Federal Communications Commission will accept a proposal for an ITFS system containing a mobile transmitter;

2) suitable transmitter locations and mobile transmitter sites can be identified.

Cost projections for the technical requirements of Phase One of the Project seem to be accurate; however, it is the recommendation of the VPTC that a more detailed description of technical services to be required in Phase Two of the project would need to be formalized before the initial phase were actually undertaken.

Determination of the potential cost-effectiveness of such a technical system in reaching the instructional objectives of the Department of Education must, of course, be provided by that agency in a companion report.

Sincerely,

George L. Hall
Director

GLH:cnw

Attachments (3)

cc - Secretary Maurice B. Rowe
Secretary Carter O. Lowance
Dr. W. E. Campbell
Mr. James T. Micklem, Sr.
Mr. John A. Curtis

MEMORANDUM

TO - Mr. George L. Hall, Director
Virginia Public Telecommunications Council

FROM - William C. Lewis
Technical Consultant
The American College of Life Underwriters

TOPIC - Project Special Delivery

September 1, 1975

On July 17, 1975 I met with Mr. John Curtis, Mr. Joel Fleming, and Mr. Jules Cohen in Washington, D. C. to review the plan for Mr. Curtis' proposed project, "Special Delivery". I must say that the meeting was most useful and helpful and I believe that both Mr. Fleming and I came away with a better idea of just where the project presently stands.

While the materials previously forwarded to you and which I reviewed were quite detailed and outlined a very ambitious plan, it is my understanding now that these materials look far into the future and assume that a number of definitive and carefully planned success have led to the ultimate system. As I advised you after my initial review, there is little in the way of a definitive technical plan in the original document.

The present plan is to seek funding for a pilot program making use of a minimal technical system to determine the feasibility of utilizing two-way television for teaching and otherwise working with profoundly/severely handicapped youth.

The technical characteristics of the system can be described as follows:

a. The system will be a single channel system. It is so defined as it provides availability of a single viewable channel at any viewing location.

b. The system will operate two transmitters located about 15 miles apart and thus covering an area approximately 15 by 45 miles. One transmitter will be designated as prime originating station and the second transmitter will operate as a satellite of the first. Either transmitter might be designated prime with the other being the satellite as desired.

c. A single mobile origination unit will be apart of the initial system. This unit will provide a relay of materials from a remote location to the prime transmitter only.

d. The initial receiving sites will be limited to 10 in-school locations. The reception of transmissions in homes will be part of a later phase of the system development.

Assuming the four characteristics of the system as described above, and referring to the rough coverage map provided by Mr. Curtis you should be aware of the following operational patterns of the proposed system.

There is a definite overlap in the coverage of the two stations. In that area, a choice can be made as to which station should be viewed by a receiving location. When the mobile unit is operating in the area covered by both stations, it too has a choice of which location to transmit it's signal to for relay.

If only one station is designated as a prime station, for example the Williamsburg location, the operational range of the mobile unit will be confined roughly to the coverage area of that station.

It should be noted that every time the mobile unit moves, the antenna at the relay receiver must be re-oriented for proper reception. This could entail some detailed and problematical antenna study work be done based on the desired operating area for the mobile unit.

Some thought must be given to establishing receiving locations in the indicated area so as to minimize effects of high trees, buildings and other obstructions.

The necessary budget to establish the pilot project can be summarized as follows. These figures are taken from the project documentation supplied by Mr. Curtis and while these costs seem reasonable, delay in implementing the project may result in normal inflation showing in the final costs of the project.

These costs assume the higher engineering figures but do not include the acquisition of land or construction of transmitting towers. It seemed that Mr. Curtis was confident he would find approval to place transmitting antennae on existing structures.

CAPITAL COSTS

2 fixed transmitting stations	$41,045.00	$ 82,090.00
10 Receiving locations equip.	2,463.00	24,630.00
1 Mobile Transmitter	27,700.00	27,700.00
1 Mobile studio package	35,510.00	35,510.00
1 Vehicle	27,500.00	27,500.00
TOTAL		$197,430.00

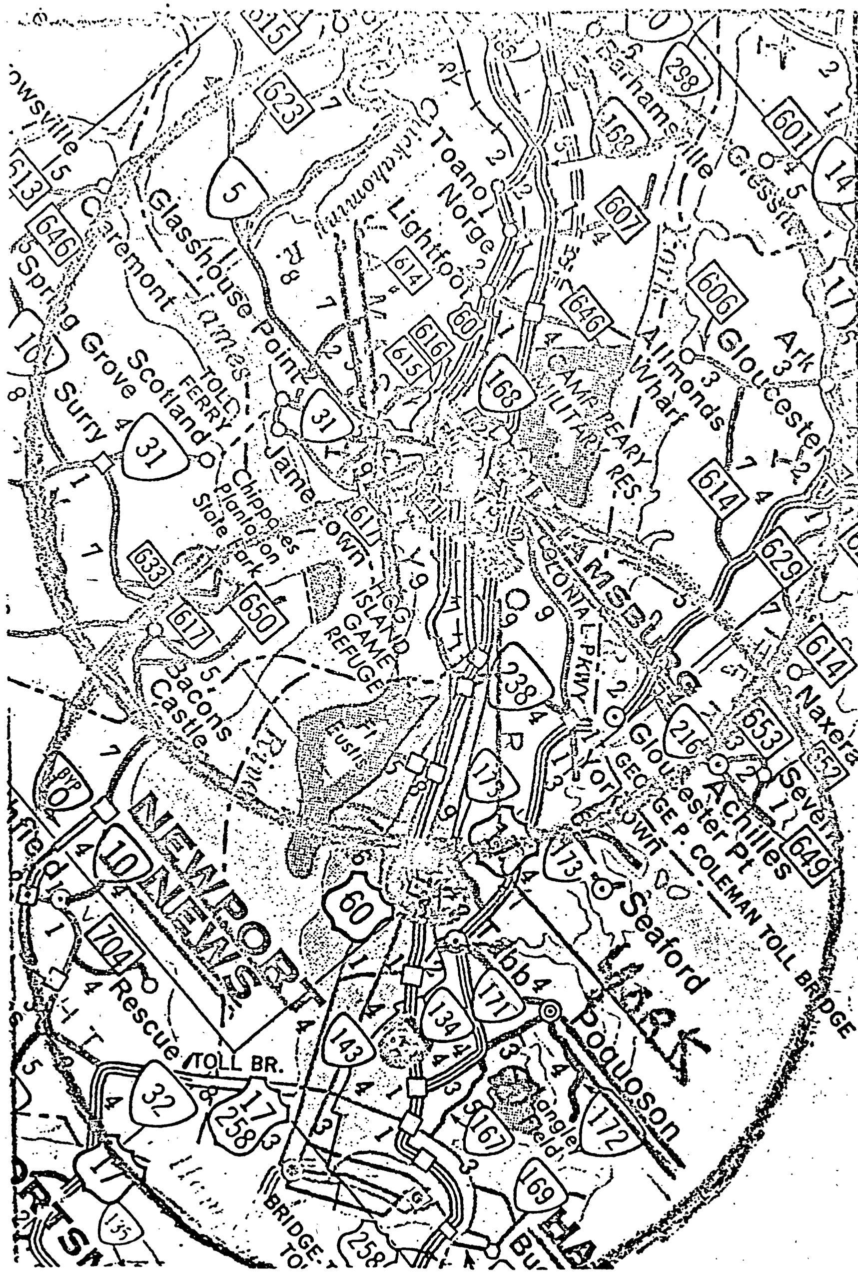
ANNUAL OPERATING COSTS (Less personnel)

General Maintenance	$ 8,000.00
Operating Costs	16,387.00
	$25,887.00

I conclude and must advise you that from the data presented and after consideration of various materials that I see no technical reason why the system as described will not operate. There are a number of details that will have to be cleared up however before we can put the system into operation.

Other than considering the cost of the system when spread over the population and defining the actual population in the area to be covered which are obvious, the FCC must approve the operation of the mobile transmitter in the ITFS band. There is some question on this matter.

I would also advise that before the pilot proposal is approved that a more firm phase 2 plan be developed indicating the costs for additional channels of operation, additional transmitter sites and additional receiving locations. In other words, a system projection of equipment, service, message traffic and costs should be made before embarking on the initial phase.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WILLIAM C. LEWIS

Communication System Consultant/ P.O. Box 412 Dover, Delaware 19901/302/678-1112

1 October 1975

Mr. George L. Hall
Virginia Public Communication Council
Ninth Floor
Ninth Street Office Building
State of Virginia
Richmond, Va.

REF: Center for Excellence

Dear Mr. Hall:

The enclosed letter from Mr. John Curtis confirms the setting forth of the Center For Excellence as being correct as I have been able to ascertain from reading Mr. Curtis' documents and from meeting with Mr. Curtis and Mr. Cohen. Please add it to my prior report for your records.

In summary I can advise you that the I.T.F.S. system as set forth and proposed by the Center For Excellence is certainly feasable from a technical standpoint. The full costs of such a system will, of course, only be fully understood when an actual system begins to evolve on the drawing board. As with any system operating in that frequency band considerable planning must go into facilities for transmitters and receivers.

On the other hand, while the use of I.T.F.S. technologies is possible for this application I amof the opinion that there are some alternate transmission techniques such as CATV, Video Cassette, etc., which may provide adequate capabilities for less dollar outlay than I.T.F.S. systems. Certainly a part of any implementation proposal should be a complete study of all available options for message delivery.

Thankyou very much for participating in this project. I look forward to working with you again in the future.

Sincerely,

William C. Lewis

JOHN A. CURTIS
102 NORTH SULGRAVE COURT
WILLIAMSBURG, VIRGINIA 23185

9/20/75

Dear Bill:

Thks so much for {a copy of your report} re: the CONTEX system proposal for research purposes in the Va. Commonwealth.

Your summary of the project appears to be sufficient and clear for your Client – the Va. Ed. Telecom. Council – to be able to understand the simplicity and equipment costs of the suggested experimental system.

Hope our paths will again cross.

John Curtis

COMMONWEALTH of VIRGINIA

Virginia Public Telecommunications Council
902 Ninth Street Office Building
Richmond, 23219
(804) 770-3153

August 27, 1975

MEMORANDUM

TO Mr. George L. Hall

FROM - Joel B. Fleming JF

SUBJECT Lewis Report

Please let the record show that the contents of the Lewis Report on the Center for Excellence ITFS Proposals were reviewed orally on August 26th in detailed discussion by Mr. Lewis with the VPTC's Telemedia Staff and with three staff persons from the Department of Education, namely, Mrs. Mary Anne Franklin, Mrs. Mary Elizabeth Dalton and Dr. James T. Micklem.