

APRIL 21 LETTER

Attached is the text of the April 21 Letter application which is referenced in the cover letter associated with the instant Form 442 application. The April 21 Letter application appears to have been misplaced within the agency. Therefore, as explained in the cover letter, the applicant requests that the Commission accept this application *nunc pro tunc* as of April 21.

Please note that since the instant FCC Form 442 is being submitted electronically at the request of FCC staff (and in order to expedite processing), we have no way to re-file the engineering diagrams submitted with the April 21 Letter. These materials, as well as a •hard copy• of the entire April 21 Letter application (including the Commission•s date-stamp as proof of submission), will be provided to the Commission•s staff informally.

April 21, 2000

Magalie Roman Salas, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: William R. Varecha
Application for Construction Permit
Experimental Broadcast Station

Dear Mrs. Salas:

On behalf of our client William R. Varecha, we are submitting the enclosed application for a construction permit for an experimental broadcast station.

Our client seeks authorization to experiment with a means of providing •local-into-local• television service in rural and small market areas through the use of a transponder located on an aircraft at an altitude of approximately 60,000 feet, together with associated terrestrial uplink service.

It is believed that the experimental broadcast service provisions of Part 74, Subpart A of the Rules will provide the best opportunity for Commission authorization of these experiments. If the Commission considers another provision of the Rules more appropriate, our client is amenable to amending the application accordingly.

As is readily apparent by reference to the enclosed application, as required by •74.131 of the rules:

(1) The applicant has a definite program of research and experimentation in the technical phases of broadcasting, which indicates reasonable promise of substantial contribution to the development of the broadcasting art.

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(2) That upon the authorization of the proposed station the applicant can and will proceed immediately with its program of research and experimentation.

(3) That the transmission of signals by radio is essential to the proposed program of research and experimentation.

(4) That the program of research and experimentation will be conducted by qualified personnel.

Please call Barry Wood of this firm or the undersigned if you have any questions regarding this matter.

Yours truly,

Paul H. Brown

Enclosure

William R. Varecha
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April 21, 2000

Magalie Roman Salas, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Construction Permit for Experimental Local to Local Technology
via a Stratospheric Platform Re-Using the Existing Ku Band

Dear Mrs. Salas:

The recent Satellite Bill has granted Satellite Providers the ability to now deliver signals of local TV Stations via Direct TV and others. Direct TV will provide local TV service only to the top 50 TV markets. It appears other new projects may use spot beam technology to provide local to local TV service into markets 50 to 75. To the best of our knowledge, no other entity intends to serve the small TV markets as the cost may be greater than the return. Small market broadcasters are driven by necessity to supply a source of program dissemination so not to be left behind in the new age of satellite delivered TV.

Applicant seeks an experimental license to test a new means of local to local TV delivery in rural TV markets 50 through 212. We have determined no other current method may be available to small market broadcasters to disseminate a signal via Satellite.

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We have developed a plan to utilize a new stratospheric platform operating from 60,000 feet to serve TV markets 50 through 212. The plan calls for the use of approximately 60 solar aircraft which place a 50 mile primary grade A signal over the city of license, plus a 150 mile range of a grade B signal to serve the rural counties of designated DMA's. The system works similar to Spot Beam Satellite Delivery, at a lower altitude, with better quality and a wider, more efficient use of the Ku (or other band) spectrum.

The applicant has thoroughly investigated all methods available to provide service. Whether a space or stratospheric platform is used, all potential methods are weakest at the dissemination potential to get a signal up and down linked. It appears all band width in Ku has been allocated, though much of it is not in use. The proposed 49 gig band simply will not work due to rain blockage, and the transponder for our aircraft has a payload limitation of 220 pounds.

Our plan calls for the re-use of the Ku band from a near stationary slot at higher altitude that is not on an equatorial latitude used by GEOS. The plan uses a different look angle of broadcast and distribution point. The antenna will be reorientated utilizing the same frequency (a 500 MHz band from 12.2 to 12.7 GHz) that should not interfere with other licensees using the band width from a higher platform. This is an efficient use of the spectrum and enables consumers to use the same small dish technology on the market today. If the Commission considers the 12.2 to 12.7 GHz band to be not available, then the 12.75 to 13.25 GHz or 13.8 to 14.5 GHz bands are requested.

Through the Satellite Bill, Congress will make loans available to develop local to local broadcast; however, no US orbital slots or transponder frequencies are available. The last orbital slot was auctioned off for over \$600 million to MCI. The road block to any new service is the fact that no frequencies have been allocated for this service.

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This request to re-use the Ku band may be met with resistance from those who are now allocated the band width. Since our plan calls for a different application of the Ku frequencies that should not interfere with other allocations, we request the Commission to allow an experimental use on a national or local application that will test and prove the co-use of the band width along with that of the aircraft. Receive dishes will have a different look angle than those currently in use.

Stratospheric Platform

AeroVironment has received NASA funding to develop a stratospheric platform. The platform is a plane with a 250' wing span of solar panels, no pilot, no fuel tank and which flies at 60,000 feet in a circle at 60 miles per hour for up to six months at a time. Each aircraft produces a primary coverage of 50 miles and a Grade B signal of about 150 miles, similar to that of a terrestrial TV signal (see appendix). The final development of the craft will take 3.5 years to complete. The plane can now stay aloft for up to four days at a time until storage for night flight completes its trials. During this period, we can test the transponder communications as the craft itself is in final development.

Enclosed is information on the solar airplane that adds another layer of Communications devices and may provide the most efficient use of spectrum to provide local-into-local service in small TV markets.

Very truly yours,

William R. Varecha

Enclosure

William R. Varecha
Experimental Construction Permit Application

SUPPLEMENTARY STATEMENT

Pursuant to the requirements of •74.112 of the rules, the following supplementary statement confirms the applicant's understanding:

(a) That all operation upon the frequency requested is for experimental purposes only.

(b) That the frequency requested may not be the best suited to the particular experimental work to be carried on.

(c) That the frequency requested need not be allocated for any service that may be developed as a result of the experimental operation.

(d) That any frequency which may be assigned is subject to change without advance notice or hearing.

(e) That any authorization issued pursuant to the application may be canceled at any time without notice or hearing, and will expire as a matter of law if the station fails to transmit broadcast signals for any consecutive 12-month period, notwithstanding any provision, term, or condition of the license to the contrary.

(f) That if approval of the experimental broadcast station may have a significant environmental impact, see •1.1307, submission of an environmental assessment under •1.1311, and compliance with the Commission's environmental rules contained in Part 1 of this chapter is required.