

To: Matt Hederstrom
E-Mail: mhederstrom@anpc.com
From: John Kennedy
Date: August 28, 2003

Subject: FCC File #: 0258-EX-ST-2003

Message:

Dear Mr. Matt Hederstrom:

The following are comments were made concerning STA file number 0258-EX-ST-2003:

" While the Transportable TLS design specification that was provided by Advanced Navigation and Positioning Corp. did contain a great deal of information on the Transportable TLS, the requested detailed technical description of the differences between the Transportable TLS and the civil TLS system and proposed final configuration for the Transportable TLS were not included in the specification.

First, the TLS 1030 MHz interrogation rate is specifically capped at 10 Hz and this results in 2.5 times the number of interrogations per aircraft that a conventional 1030 MHz ATCRBS interrogator produces in the 120 degree mainlobe of the TLS 1030 MHz antenna. The proposed Transportable TLS increases the number of interrogations over the maximum authorized for a TLS system resulting in an increase in the number of interrogations to a minimum of 18 Hz with no cap. Second, the Transportable TLS also includes an unacceptable interrogation from an omnidirectional antenna. Third, the Transportable TLS adds Mode C interrogation capability over the Mode A only interrogations of the TLS. It is unclear if the Mode C interrogations will be in addition to the minimum of 18 Mode A interrogations proposed for the Transportable TLS. Fourth, the proposed ERP of the Transportable TLS 1030 MHz transmitter (1700 Watts) exceeds the maximum allowed ERP of the TLS system (1035.5 Watts) by 664.5 Watts. The Civil TLS system has the same range and altitude volume as the Transportable TLS so use of the additional powers is not justified. Fifth, the ERP's of the other Transportable TLS transmitters are also in excess of those used on the Civil TLS system without any justification. Sixth, the Transportable TLS specification does not clearly define the number of localizer (108-112 MHz) and glide slope (328.6-335.4 MHz) frequencies the Transportable TLS will use in the final configuration. FAA can not support the use of multiple localizer and glide slope frequencies in a TLS system. Finally, the FAA can not support 360 degree surveillance using a TLS type system as the interrogation rate seen at the aircraft exceeds the rate produced by rotating 1030 MHz interrogators. Proper performance of all existing 1030 MHz interrogators relies on maintaining low interrogation rates. The FAA is spending large amounts of money to reduce the numbers of interrogations transmitted from FAA systems so that the TLS 1030 MHz interrogation rate of 10 Hz is 8.333 times the number of interrogations per aircraft of that of the newest FAA monopulse interrogators.

In summary, there are a number of issues that the FAA can not support in the proposed Transportable TLS system. Therefore, the FAA still objects to the STA request. "

Please indicate in your response to this e-mail if you intend to pursue obtaining this STA or if you wish to cancel this application.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of August 28, 2003 may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.

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