

September 7
~~August 26, 1999~~

EXHIBIT 1

Attachment to ~~FCC Form 442~~ *STA License Letter Application* / *Request for Space Segment*
Applicant: James Haak, Matsushita Avionics Systems *Capacity to Operate INMARSAT*

PURPOSE

Matsushita Avionics Systems (MAS) is the supplier of cabin equipment located in and around the passenger seats on commercial aircraft. The cabin equipment currently provides each passenger individual telephone, FAX, video display, audio, video games, and catalog shopping. The radio station will allow MAS to add E-mail to the list of features available to each passenger. The radio station will also allow MAS to add cabin equipment failure notification services to the maintenance personnel on the ground awaiting the aircraft's arrival.

THEORY OF OPERATION

The MAS radio station utilizes standard avionics equipment that is fully compliant with ARINC Characteristics 741/761. This equipment onboard commercial aircraft provides continuous world wide voice and data communication services to/from aircraft via the INMARSAT satellites. The satellites are in geostationary orbit and communicate with ground earth stations that are tied into the terrestrial telephone network.

The MAS radio station operates as an airborne earth station from the INMARSAT satellite perspective. Digital voice up to 9.6 kbps and packet mode data up to 10.5 kbps are utilized.

RESEARCH PROGRAM

MAS will develop upgrades to the cabin equipment as described in the PURPOSE. To verify total system operation, MAS will connect the laboratory cabin equipment to the radio station to perform end-to-end testing; to/from the MAS lab through INMARSAT and the terrestrial telephone network..

At no point will MAS modify the radio station equipment in any way. At no point will MAS modify the radio emission in anyway. MAS experimentation is limited to the data content.

~~Attachment: Completed INMARSAT registration application (4 pages)~~