

RESPONSE to QUESTION 6  
Request for Experimental Authorization

NAL Research Corporation ("NAL") herein requests experimental authority to demonstrate and test earth station facilities in connection with the non-geostationary satellite orbit space station constellation owned and operated by Iridium Constellation LLC ("Iridium") (Call Sign S2110) in the manner described below. NAL seeks authority for a period of twenty-four (24) months.

Response to question 6: (a.) A description of the nature of the research project being conducted.

The project is for testing and integrating a transceiver, known and commonly referred to as the Iridium Certus 9770 transceiver, into products designed and manufactured by NAL Research Corp. located in Manassas, Va. The research to be conducted will test and evaluate the transmitter and receiver components designed to operate on the L band of the Iridium satellite communication network. The research will include test & evaluation of the transceiver and the design of value-added components and functions to the transceiver unit and their incorporation into NAL products, such as a modem and a handset.

(b.) A showing that the communication facilities requested are necessary for the research project.

The communication facilities requested are the Iridium satellite communications network and its development kit known as the 9770 Development Kit ("Dev Kit") which contains the Certus 9770 transceiver unit manufactured by Iridium Satellite Communications, LLC for operation over the Iridium satellite network. This Iridium product and its facilities are required for NAL Research to test, evaluate and design new products based on the 9770 transceiver. Thus Iridium's 9770 unit and its satellite network system, and NAL's value-added transceiver products, are the facilities that are necessary to this experimental license. The Iridium network and the related products are necessary for the research project because the products are to be used for communications over this network so the Iridium network is necessary for this research.

(c.) A showing that existing communication facilities are inadequate.

There are no existing communication facilities equivalent to Iridium's 9770 Dev Kit which includes the transceiver, and the constellation of Iridium's LEO satellites. Thus there is nothing else adequate to use other than these facilities for development of NAL's products based on the 9770 transceiver.

(end)