

## **EXPERIMENTAL PROGRAM**

Rockwell Collins, Inc., designs and develops equipment used in the Aeronautical Mobile Satellite Service. Rockwell Collins respectfully requests special temporary authority for experiments to support these efforts. The scope of the experimental program may be grouped into three general activities as follows:

### **1. Ground-Based Performance Monitoring**

One purpose of the program is to continue ground-based evaluation of the existing system. The purpose is to identify through on-the-air trials performance issues or other possible improvements that could be made in the overall system, especially those that cannot be discovered in any other way.

### **2. System Integration Testing**

Rockwell Collins routinely performs integration tests with new on-board (non-radiating) equipment as such equipment becomes available. Rockwell Collins operates an integration lab that allows it to simulate most aircraft interfaces as well as over-the-air operation with operating Ground Earth Stations. The requested authorization will allow Rockwell Collins to use the integration lab with the operating parameters identified in its application.

### **3. Enhanced Function And New Equipment Development**

Rockwell Collins' existing system is being upgraded to handle other functions presently being developed by the industry and Inmarsat. In particular, Rockwell Collins hopes to use the experimental program to develop and test SATCOM radios capable of using the new applications offered by SATCOM service providers, including broadband and other high speed applications.

## **Satellites In Use**

Rockwell Collins intends to use the four Inmarsat geostationary satellites that are visible from the United States and support aeronautical services. These satellites are:

Inmarsat satellite I-3, designated ocean region = AOR-W, longitude = 54W  
Inmarsat satellite I-3, designated ocean region = AOR-E, longitude = 15.5W  
Inmarsat satellite I-3, designated ocean region = POR, longitude = 178E  
Inmarsat satellite I-4, designated ocean region = Americas, longitude= 98W

In addition, Rockwell Collins intends to use Inmarsat satellites (which also support aeronautical services) that are repositioned in the future that are visible from the United States.