Description of Research Project

CubeSat Mission: ASGARDIA

The overall goal of the Asgardia-1 mission, is to demonstrate long term storage of data in LEO.

The communications between Globalstar and Asgardia will support telecommands uplink, and data downlink. The primary communication system consists of a Globalstar GSP-1720 modem (FCCID J9CGSSDVM) with a patch antenna for two way communications to ground operations. In addition, two transmit only Globalstar STX3 radios (FCCID: L2V-STX3) are included. The STX3 radios each use a separate patch antenna. All transmissions can be terminated on command. Also, if the Asgardia spacecraft detects that communication with the Globalstar constellation is lost, the Asgardia spacecraft will autonomously terminate transmissions until communication is regained.

The Globalstar constellation has been approved by the FCC and the ITU for communications with earth-based terminals. The FCC has issued Globalstar a Blanket License for communications between the Globalstar Constellation and earth-based terminals. The radio terminals used in this mission are exactly the same as the terminals that the FCC has approved for earth-based communications.

The Experimental License requested by Globalstar is necessary to authorize radio transmission of data between the Globalstar constellation and a space-based Globalstar terminal, and to authorize Globalstar to provide service to a space-based terminal.