

Form 442 Question 6: Description of Research Project (FCC Experimental License Request)

Applicant: **Globalstar, Inc.**
Form 442 File Number: **0244-EX-CN-2022**

The objective of the Globalstar Form 442 Experimental License request is to support communications for the NASA PACE-2 mission. The objectives of the PACE-2 project are presented below and in the NTIA Spectrum Authorization request.

- NTIA SPS-25048/1

Background:

This request is for a companion license and is related to the NTIA spectrum authorization filing for the PACE-2 mission. PACE-2 is a NASA Ames Research Center 6U spacecraft. It is the second spacecraft in the PACE series and serves as a pathfinder for the subsequent PACE tech demos. The objective of the PACE-2 mission is to demonstrate the functionality and performance of the improved PACE-2 avionics, EPS, ADCS, Propulsion, and Comm systems, and test the SEEKER image analysis payload. PACE-2 orbit is 525km circular, 97.5 deg Inclination (SSO).

In its request, NASA Ames Research Center sought authority to operate Globalstar STX3 (FCCID L2V-STX3) radio in space orbit. This radio is integrated into the PACE-2 spacecraft which will be launched into low-earth orbit. Some data collected by the PACE-2 spacecraft will be transmitted by the Globalstar STX3 module and relayed to the NASA mission operations center by means of the Globalstar system constellation and the associated Globalstar ground infrastructure.

In this Experimental License request, Globalstar seeks authority, in connection with the aforementioned CubeSat mission, to:

- Receive transmissions from the licensed transceiver module and relay the data to the PACE-2 mission operations center

The only change from Globalstar’s currently licensed operations is that the Globalstar constellation will be communicating with FCC-approved terminals located on a space station rather than communicating with these terminals from the usual earth-based location. Globalstar’s License does not cover space-to-space operation, thus requiring this Experimental License request.

- As described in the PACE-2 filing, the CubeSat will launch no earlier than October 2022 and is expected to be in operation for not more than 8 months. NASA Ames will notify the FCC of the dates of actual operation once those dates have been firmly established.

PACE-2 Contact for Stop-Buzzer:	Globalstar Contact:
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