

From: Brad Irish

To: Nimesh Sangani

Date: April 16, 2019

Subject: Additional Information Request

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Message:

### 8.3.27 Use of Fixed Devices That Re-Radiate Signals Received From the Global Positioning System

a. Individual authorization is for indoor use only, and is required for each device at a specific site.

The test equipment shall only be used indoors and shall be under the control of AeroTEC Inc.

b. Applications for frequency assignment should be applied for as an XT station class with a note indicating the device is to be used as an "Experimental RNSS Test Equipment for the purpose of testing

GPS receivers" and describing how the device will be used.

The application is for station class XT. This authorization is issued for the purpose of conducting experimental testing and engineering, inside aircraft hangar with door closed, on any applicable Airframes and STC's.

c. Approved applications for frequency assignment will be entered in the GMF.

We acknowledge the approved application will be entered into the Government Master File (Classified CONFIDENTIAL).

d. The maximum length of the assignment will be two years, with possible renewal.

We are requesting the maximum assignment length of two years.

e. The area of potential interference to GPS reception (e.g., military or contractor facility) has to be under the control of the user.

AeroTec shall make intercom announcements and post signs on doors to the test area notifying that, "GPS Repeater is in use and the GPS information you receive may be in error."

f. The maximum equivalent isotropically radiated power (EIRP) must be such that the calculated emissions are no greater than -140 dBm/24 MHz as received by an isotropic antenna at a distance of 100 feet (30 meters) from the building where the test is being conducted. The calculations showing compliance with this requirement must be provided with the application for frequency assignment and should be based on free space propagation with no allowance for additional attenuation (e.g., building attenuation.)

EIRP is no greater than -140 dBm/24 MHz at 100 feet.

g. GPS users in the area of potential interference to GPS reception must be notified that GPS information may be impacted for periods of time.

AeroTec shall make intercom announcements and inform individuals directly that "GPS Repeater is in use and the GPS information you receive may be in error."

h. The use is limited to activity for the purpose of testing RNSS equipment/systems.

Operation will be limited to the purpose of testing global navigation satellite service (GNSS) and any equipment and systems applicable.

i. A "Stop Buzzer" point of contact for the authorized device must be identified and available at all times during GPS re-radiation operation of the device under any condition.

The designated point-of-contact to terminate transmissions if interference occurs is Mr. Max Unruh at phone 509.762.1000.