

Extended C-band Use

The proposed 11.1 meter antennas will be co-located at a Teleport with existing and licensed “Grandfathered Earth Stations”. Those existing antennas are licensed and operated by the Applicant under **Call Sign(s):** KA294 and KA20. The remote location of the Brewster Teleport and the long time presence of the existing 30 meter and 13 meter Grandfathered earth stations will prevent the proposed smaller diameter 11.1 meter antennas from impacting any existing systems in their shared band.

Use of the 3625-3700 MHz frequency band shall comply with the terms of footnotes US245 and NG185 to the Table of Frequency Allocations, 47 C.F.R. § 2.106, US245, NG185, and Section 2.108 of the Commissions rules, 47 C.F.R. §2.108, which limit the use of these frequencies to international, intercontinental satellite systems, subject to case-by case electromagnetic compatibility analysis with all users of the band. The previously licensed and Grandfathered earth stations indicate the performance of the proposed 11.1 meter antennas will operate with similar results.

The 5850-5925 MHz band is shared in the U.S. and Possessions on a co-primary basis with Federal Government radiolocation systems. Unacceptable interference may be caused to this earth station's communication links from radiolocation systems, including high-powered land-based transportable and ship borne radar transmitters, operating in the frequency As required by US245, the earth station applicant is aware of the EMC environment and this sharing situation with the radiolocation service and accepts the potential for unacceptable interference. Additionally, this fixed-satellite service earth station is limited to operations over international inter-continental satellite systems with the extended 5850 – 5925 MHz band.

The 3650-3700 MHz band is shared on a co-primary basis in three Federal Government radiolocation systems identified in US348. Unacceptable interference may be caused to this earth station from these three radiolocation systems operating in the frequency band. The applicant is aware of this condition and based on the co-location with the existing Grandfathered earth stations already operating without conflict in the 3650-3700 MHz band, it is confident that the proposed 11.1 meter antennas will operate without interference and the need for a new EMC study per US348 is not necessary.

Per US348 and based on the NTIA TR-99-361 Report, Technical Characteristics of Radiolocation Systems operating in the 3.1-3.7 GHz Band and Procedures for assessing EMC with Fixed Earth Station Receivers, the applicant accepts this potential for unacceptable interference from the three stations identified in US348. In the case that out-of-band interference does occur, the applicant is further aware that use of a RF filter ahead of the low noise amplifier (LNA) will limit potential out-of-band interference to its receiving earth station. Additionally, per US 245, in the band 3650-3700 MHz, these fixed-satellite service operations are limited to international inter-continental satellite systems.

