From: Richard Peal

To: Nimesh Sangani
Date: August 20, 2021

Subject: Additional Information Request

Message:

In response to reference number 64066, please find our responses below:
1) Applicant states MyRadar1 will only transmit in X-band to KSAT’s Los Angeles, CA earth station site. The ground stations are receive-only and will not transmit for the MyRadar1 prototype. Please provide the TT&C Earth station locations and frequency bands or file number.
Response:
The KSAT ground station in Los Angeles with DDMMSS location information and frequency bands have been provided in the New NTIA Space Record Data.V4.1 in Part A and within Section 4 of the ACME Narrative.
Please provide the sections and details that are required so we may respond with the necessary information.
Internal Note: KSAT provides TT&C services for LEO Satellites from their global and integrated network in S-band and UHF/VHF frequencies.
2) The spacecap contains 3 separate API notices: TRSI, HORIS and MYRADAR1. Only 1 API file is permitted per spacecap file. The applicant will need to provide a separate spacecap(AP4) and cost recovery for each cubesat filing. The documentation provided indicates the MyRadar1 is an experimental that is part of HORIS. Please clarify.
Response: Thank you – we will remove TRSI and HORIS from the application and provide an updated spacecap information. The SpaceCap database has been updated and uploaded as MyRadar1 SpaceCap Database.
Note – ensure HORIS references are clear and/or necessary for MyRadar1 filing

3) The orbital information on the Notice tab of the spacecap is incomplete. Please complete.
Response: We have updated our file to remove constellation in A4b1a to address this issue.
The SpaceCap database has been updated and uploaded as MyRadar1 SpaceCap Database. The GIMS database file has been updated and uploaded as MyRadar1 GIMS R1.
Please note: The MyRadar 1 and MyRadar 1 GIM database files can be removed from our application.
4) The applicant selected A4b1a (constellation) as well as marking this as Single. Please verify/correct.
Response: we have updated this section to indicate MyRadar1 is not a constellation.
5) The applicant marked B3b1b in the Beam tab, that applicable PFD will be met by applying the method in Annex 1 of ROP, however no PFD calculations have been provided. Please provide the PFD calculations.
Response: The PFD was calculated using the following standard formula:
PFD [dB(W/m / 4 kHz] = EIRP (dBW) – 71 – 20log10(D) – 10log10(BW) – 24
Where EIRP is the Maximum EIRP of the transmission;
D is the distance between the satellite and affected surface area in km; and
BW is the bandwidth of the transmission in MHz.

6) Remove the service area map in GIMS file and provide the space station antenna beam diagrams in polar plots
Response: Please note we have removed the service area map in the GIMS file and have attached updated Microsoft Access Database files which are:
        The GIMS database file has been updated and uploaded as MyRadar1 GIMS R1.
Also please note that the space station antenna beam diagrams in polar plots are included the following attachments uploaded in our application:
        MyRadar1 Antenna Beam Profile   08/02/2021   native
        MyRadar1 TX1 Ave. Gain Profile   08/02/2021   native
MyRadar1 TX1 Radiation Pattern   08/02/2021   native

7) Complete the additional data form (attached)
Response: we have uploaded the Additional_data_for_API.pdf document and entered responses for the first 2 rows as subsequent rows are not required with a “N” in A.4.b.1.a and as shown in the updated SpaceCap database, MyRadar1 SpaceCap Database.