

Douglas Young

From: Mike Miller <mlmiller@sterksolutions.com>
Sent: Saturday, August 12, 2017 7:10 PM
To: Douglas Young
Subject: Response to Request for Info - STA File #0514-EX-ST-2017 Reference 37732
Attachments: Site _ Frequency _ Market Search Results_Rad1000.pdf; NMTsatCostRecoveryLetterJuly2017.pdf; NMTSatSpaceCap.txt

Hi Doug,

Here is an update to the answers to the IB questions on this, from June 28.

Everything is addressed except the Orbcomm coordination. We are having some delays in hearing back from them, but continue to reach out.

Thanks,

Mike
415 385-3842

1) On the Cost Recovery letter, the letter is signed by an associated professor Mr. Anders M. Jorgensen and it is not signed by a school official. We need a school official that is duly authorized by New Mexico Institute of Mining and Technology to sign this cost recovery commitment on behalf of the school. We also note that Mr. Jorgensen provided a gmail email which is not the school email address.

Answer: Complete. A revised Cost Recovery letter signed by Cleve McDaniel, VP for Administration and Finance, is attached.

2) For operation in the 148.8 MHz band, we request the applicant to coordinate and obtain a written agreement from ORBCOMM.

ORBCOMM contact:

Name: Walter Sonnenfeldt

Company: ORBCOMM Inc.

E-Mail: sonnenfeldt.walter@orbcomm.com

Answer: We continue to see dialogue with Mr. Sonnenfeldt, regarding coordination of the NMT downlink with the Orbcomm uplinks. They have been considering the question for some time. We will keep the FCC updated.

ODAR:

3) The ODAR document, Appendix G, related to the survivable components, the last column "Survivability" reference Table 4-6 but this table does not appear in the document. Please provide the information in this table 4-6.

Answer: Complete. The reference "Tables 4-6" is intended to refer to Tables 4 through 6, which are included in the ODAR beginning on page 36.

4) Per RR footnote 5.279A, the 432-438 MHz band is allocated to EESS (active) on a secondary basis; however, this mission is not in accordance with the EESS (active) allocation rather it is being used as an uplink satellite. Applicant will need to provide an EMC analysis to show that operations in the 431-432 MHz will not cause harmful interference to incumbent operations in this band.

Answer: Complete. A search using the FCC Site / Market / Frequency query, shows no FCC licensees in range of the frequency used, within 1000 km of the ground station (see attached report "Site _ Frequency _ Market Search Results_Rad1000.pdf").

STA Form:

5) For the uplink frequency 431.8 MHz the ERP value is 97 W; however, our ERP calculation value is 299 Watts ($10 \text{ dBW} + 16.9 \text{ dBi} = 26.9 - 2.15 \text{ dBi} = 24.75$; divide by 10 = 2.475 and raise to the $10^{\wedge}$ gives approx. = 299 W. Please review our calculation and make any changes as appropriate.

Answer: Complete. We agree with your calculation. The STA application has been updated to conform.

SpaceCap API file:

6) In beam name NMTUP, Group ID 2, the max power level value is shown as 22 dBW; however, this value should be 10 dBW (10 Watt per Form 442). Please check both the max and min peak power value and make changes as appropriate.

Answer: Complete. We agree. The SpaceCap (file attached, extension changed from mdb to txt) has been changed to reflect 10 dBW.

7) If the power level changes then please check all the power spectral density calculation in this beam and update the power spectral density values as appropriate. Please use the equation power spectral density equation = $\text{Power (dBW)} - 10 * \text{Log}_{10}(\text{bandwidth in Hertz})$.

Answer: Complete. The attached SpaceCap has been changed as indicated.

----- Original Message -----

Subject: Request for Info - STA File #0514-EX-ST-2017

Date: Wed, 28 Jun 2017 16:56:36 -0400

From: <oetech@fccsun27w.fcc.gov>

To: <mlmiller@sterksolutions.com>

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Office of Engineering and Technology

To:

Michael Miller, New Mexico Institute of Mining and Technology
mlmiller@sterksolutions.com

From: DougYoung
Douglas.Young@fcc.gov

Applicant: New Mexico Institute of Mining and Technology
File Number: 0514-EX-ST-2017
Correspondence Reference Number: 37732
Date of Original Email: 06/28/2017

The FCC's International Bureau/Satellite Division requests that you address the following issues:

1) On the Cost Recovery letter, the letter is signed by an associated professor Mr. Anders M. Jorgensen and it is not signed by a school official. We need a school official that is duly authorized by New Mexico Institute of Mining and Technology to sign this cost recovery commitment on behalf of the school. We also note that Mr. Jorgensen provided a gmail email which is not the school email address.

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Name: Walter Sonnenfeldt
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