alc@conspecinternational.com

From: Rhodes, Bryan A. (GRC-MSC0)
 bryan.a.rhodes@nasa.gov>

Sent: Thursday, September 13, 2018 1:43 PM

To: Anne Cortez; 'Behnam Ghaffari'

Kaufman, Bradford A. (HQ-CG000); 'John Kennedy' Cc:

Subject: RE: Raytheon experimental license KA2XAG - conditions on the license

Follow Up Flag: Follow up Flag Status: Flagged

Ben-

In response to the petition for reconsideration, NASA proposed the following replacement language for license condition number 22 on the Raytheon experimental license 0193-EX-CR-2017:

Operation in the following bands shall limit the total cumulative usage rate of any single frequency to 400 milliseconds per day.

2690-2700 MHz

2887-2893 MHz

3952-3961 MHz

4990-5000 MHz

10680-10700 MHz

15350-15400 MHz

NASA believes the proposed license condition presents a mutually agreeable solution for all involved parties. NASA did not request the imposition of any further operating restrictions for this license.

Please let me know if you have any further questions.

Thanks!

Bryan Rhodes

NASA Frequency Assignment Program Manager

NASA Glenn Research Center

Space Communications and Spectrum Management Office

21000 Brookpark Road, 142-2

Cleveland, Ohio 44135

United States of America

Tel: 216.433.2473 Cell: 216.386.0995

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From: Anne Cortez [mailto:alc@conspecinternational.com]

Sent: Thursday, September 13, 2018 3:48 PM

To: 'Behnam Ghaffari' < Behnam.Ghaffari@fcc.gov>; Rhodes, Bryan A. (GRC-MSC0) < bryan.a.rhodes@nasa.gov>

Cc: Kaufman, Bradford A. (HQ-CG000)

 / John Kennedy < John.Kennedy@fcc.gov

Subject: RE: Raytheon experimental license KA2XAG - conditions on the license

Importance: High

Hi Ben,

I am not sure which bands they are talking about. NASA was supposed to lift restrictions, not impose them.

I am willing to work with NASA to discuss any concerns that they might have, but I do not know what their concerns are.

Happy to cooperate, once I have some information.

Best regards,

Anne

Anne E. Cortez, Esq.
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From: Behnam Ghaffari < Behnam. Ghaffari@fcc.gov >

Sent: Thursday, September 13, 2018 7:14 AM

To: Anne Cortez <alc@conspecinternational.com>; 'Rhodes, Bryan A. (GRC-MSC0)' bryan.a.rhodes@nasa.gov> **Cc:** 'Kaufman, Bradford A. (HQ-CG000)' bkaufman@nasa.gov>; John Kennedy John.Kennedy@fcc.gov>

Subject: RE: Raytheon experimental license KA2XAG - conditions on the license

Hi Anne,

Please file a modification to request removing these bands.

Regards, Ben

From: Anne Cortez <alc@conspecinternational.com>

Sent: Friday, September 7, 2018 5:15 PM

To: 'Rhodes, Bryan A. (GRC-MSCO)' < bryan.a.rhodes@nasa.gov >

Cc: 'Kaufman, Bradford A. (HQ-CG000)' < bkaufman@nasa.gov>; Behnam Ghaffari Behnam.Ghaffari@fcc.gov>; John Konnedy @fcc.gov

Kennedy < <u>John.Kennedy@fcc.gov</u>>

Subject: RE: Raytheon experimental license KA2XAG - conditions on the license

Hi Bryan,

Thank you very much.

Have a good weekend. Best regards, Anne Anne E. Cortez, Esq. Managing Partner, WFS +1 520-344-8525 (office) +1 520-360-0925 (cell) alc@conspecinternational.com NOTE: This e-mail, including any attached files, is confidential, may be legally privileged, and is solely for the intended recipients(s). If you receive this e-mail in error, please destroy it and notify us immediately by reply e-mail or phone Any unauthorized use, dissemination, disclosure, copying, or printing is strictly prohibited. From: Rhodes, Bryan A. (GRC-MSC0) < bryan.a.rhodes@nasa.gov > Sent: Friday, September 7, 2018 1:05 PM **To:** Anne Cortez <<u>alc@conspecinternational.com</u>> Cc: Kaufman, Bradford A. (HQ-CG000)
 bkaufman@nasa.gov>; Behnam Ghaffari
 Behnam.Ghaffari@fcc.gov>; John Kennedy < john.kennedy@fcc.gov> Subject: Re: Raytheon experimental license KA2XAG - conditions on the license Anne-NASA provided information and direction to the FCC earlier this week to address the concerns and modify the license condition for this license. If you don't see any changes or are not contacted by the FCC concerning this matter, please let me know. Thanks! **Bryan Rhodes**

NASA Frequency Assignment Program Manager

NASA Glenn Research Center

Space Communications and Spectrum Management Office

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bryan.a.rhodes@nasa.gov

On Sep 7, 2018, at 3:27 PM, Anne Cortez <alc@conspecinternational.com> wrote:

Hi Bryan and Brad,

Have you had an opportunity to review the attached materials regarding the operation of this radar range? If so, do you have any lingering technical questions? If you are satisfied, could we lift the restrictions that NASA otherwise imposed on this license?

I look forward to hearing from you.

Thanks,

Anne Cortez, Esq.
On behalf of Raytheon Missile Systems

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From: Anne Cortez <alc@conspecinternational.com>

Sent: Tuesday, August 28, 2018 3:19 PM

Subject: Raytheon experimental license KA2XAG - conditions on the license

Importance: High

Hi Bryan and Brad,

I have been in touch with you on this previously. When the FCC renewed authorization for Raytheon Missile Systems' license KA2XAG, there were conditions on this license that carved out some spectrum bands.

Last fall, Greg Melz of NTIA told me that the carve outs for 2690-2700, 4990-5000, 10680-10700, and 15350-15400 MHz were all required by NASA. I think that the NG091299 is the relevant number. Certainly, the FCC application number as 0193-EX-CR-2017.

This is an RCS range, and it is highly detrimental to the functioning of the range if Raytheon has to carve out the use of those bands. As a result, I am trying to set up a discussion with you to go over the operational parameters of the range with you to alleviate any concerns that you might have that the operations of this range might impact NASA. What the exhibit shows is the incredibly low power off the range (shown via Hertz Warfare plots), the low duty cycle, and the overall short time of use of the spectrum – maximum of 387 milliseconds per day per channel.

If you do not wish to set up a call, could I ask you to review the exhibit and respond with any lingering questions that you might have? The FCC assures me that they will adjust the license if you will agree. This range has been in use with these parameters since 2008, and generally in use (at lower power) since 1993. We have never had any reports of harmful interference from the operations, nor even degradation of performance of other radio systems.

I look forward to a prompt response.

Thank you very much,

Anne E. Cortez, Esq. On behalf of Raytheon Missile Systems

Anne E. Cortez, Esq.

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<Raytheon ttf renewal exhibit April 25 2017.pdf>