Terry, Ryan N (US)

From: Rossow, Mark K CIV USARMY NETCOM (US) <mark.k.rossow.civ@mail.mil>
Sent: Thursday, March 29, 2018 4:35 PM
To: Terry, Ryan N (US)
Cc: Poppenhager, Lori A CIV USARMY HQDA CIO G-6 (US); Gomez, Tom J CIV USARMY NETCOM (US)
Subject: EXTERNAL: RE: [Non-DoD Source] Lockheed Martin Corporation request for coordination -- DAPRA/LM joint activity (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Terry;

Directional, tracking antennas will hopefully minimize interference to authorized users.

I can concur with initial testing provided that Lockheed Martin will notify my office (E-mail to mark.k.rossow.civ@mail.mil and tom.j.gomez.civ@mail.mil) no less than one day prior to intended testing with the notice providing the intended times of the test. Also, the notice E-mail is to include two positive telephone numbers for STOP BUZZER use should radio frequency interference (RFI) be reported.

My hope is that there is no RFI, and after a few weeks of testing we can minimize the notice E-mail requirement to a weekly notice.

Please let me know if the aforementioned is acceptable.

Thanks Terry.

Mark

Mark Rossow
Chief, DoD AFC AZ
Tel: (520) 538-6423
DSN: 879-6423
E-mail: mark.k.rossow.civ@mail.mil

-----Original Message-----
From: Terry, Ryan N [mailto:ryan.n.terry@lmco.com]
Sent: Wednesday, March 28, 2018 11:57 AM
To: Rossow, Mark K CIV USARMY NETCOM (US) <mark.k.rossow.civ@mail.mil>
Cc: Poppenhager, Lori A CIV USARMY HQDA CIO G-6 (US) <lori.a.poppenhager.civ@mail.mil>
Subject: RE: [Non-DoD Source] Lockheed Martin Corporation request for coordination -- DAPRA/LM joint activity (UNCLASSIFIED)

Hi, Mark.

Sorry that I didn't include those technical details ... I realize that the copy of the FCC draft form didn't attach.

For operations in 400-520 MHz:

Fixed transmitter power: 100 W output / 1.25 kW ERP (with gain) Mobile (airborne) transmitter power: 100 W output / 110 W ERP

For operations in 2 GHz:

Fixed transmitter power: 170 W output / 100 kW ERP (with gain) Mobile (airborne) transmitter power: 170 W output / 250 W ERP

In all cases, the airborne antenna is directional -- the ground transmitter will track the aircraft and the aircraft transceiver will communicate only back to the fixed location based on the same track-and-follow technology.

Best,
Ryan

-----Original Message-----
From: Rossow, Mark K CIV USARMY NETCOM (US) [mailto:mark.k.rossow.civ@mail.mil]
Sent: Wednesday, March 28, 2018 2:43 PM
To: Terry, Ryan N (US) <ryan.n.terry@lmco.com>
Cc: Poppenhager, Lori A CIV USARMY HQDA CIO G-6 (US) <lori.a.poppenhager.civ@mail.mil>
Subject: EXTERNAL: RE: [Non-DoD Source] Lockheed Martin Corporation request for coordination -- DAPRA/LM joint activity (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Ryan;

What is the transmitter power involved with the testing, and what type of antenna will be used for the transmission's from the aircraft (omni, directional, etc.)?

Thank you
Mark

Mark Rossow
Chief, DoD AFC AZ
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DSN: 879-6423
E-mail: mark.k.rossow.civ@mail.mil

-----Original Message-----
From: Terry, Ryan N [mailto:ryan.n.terry@lmco.com]
Sent: Tuesday, March 27, 2018 4:47 PM
To: Rossow, Mark K CIV USARMY NETCOM (US) <mark.k.rossow.civ@mail.mil>
Cc: Poppenhager, Lori A CIV USARMY HQDA CIO G-6 (US) <lori.a.poppenhager.civ@mail.mil>
Subject: [Non-DoD Source] Lockheed Martin Corporation request for coordination -- DAPRA/LM joint activity

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Mark,

I hope this email finds you well. I am writing to coordinate experimental testing for a six-month period (to commence 4/15/2018, if possible) in connection with a DARPA research program that Lockheed Martin is supporting in Arizona and Eglin Air ForceBase.

Attached is the exhibit that outlines the proposed operations. At Lori's suggestion, specific frequencies were selected, rather than a band, to facilitate frequency coordination and still provide an opportunity for the DARPA program to work with propagationand performance characteristics in different bands. Likewise, we have worked to contain the area of operations to a rectangle, to minimize, if not eliminate, the potential for interference to any of your operations.

An overview of the operations follows. More detail is found in the attached:

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UHF: 410 MHz / 1M00G1D
440 MHz / 1M00G1D
50M0G1D
490 MHz / 1M00G1D
69M0G1D

S-band: 2250 MHz / 125MF1D
125MG1D
3400 MHz / 125MF1D
125MG1D

Coordinates: 33º 44.45 N / 113º 38.32 W
33º 33.74 N / 113º 45.35 W
33º 15.60 N / 112º 24.20 W
33º 05.38 N / 112º 29.58 W

Flights will be conducted at up to 10,000 ft AGL

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Since Lori and I spoke about this testing when it came through her office earlier in the month as a more expansive request, I am copying her above to minimize the back-and-forth required among you.

As always, I am available to answer any questions that would help you to make your determination

Many thanks,
Ryan

Ryan N. Terry
Director, Regulatory Licensing and Policy Trade & Regulatory Affairs Lockheed Martin Corporation

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