

From: [Ayerst, Douglas](#)
To: [Tolman, David \(IE\) @ SSG - PE - MT](#)
Cc: [Blitz, James](#); [Karis Hastings](#)
Subject: Mustang Technology: RE: FCC Frequency Coordination
Date: Tuesday, November 11, 2014 1:56:06 PM
Attachments: [Mustang Tech Group Exper App Nov 2014.pdf](#)

CC:

Jim Blitz, V.P., Regulatory Counsel for SiriusXM Radio
Karis Hastings, outside counsel for Sirius XM Radio.

Dear Mr. Tolman,

I have reviewed your company's request to use the SDARS band for operations described below and in the attached FCC Form 442 request.

These operations include transmitting a signal in the 1600-2400 MHz band at up to 3 W peak ERP and modulated with 1) pulse (150 MHz bandwidth), 2) Barker Coded Pulse (100 MHz bandwidth) or 3) Binary Phase Shift Keying (826 kHz bandwidth). The transmissions would occur at a ground site near Plano, TX as well as from an airborne platform flying 2438 meters AGL within areas having radii 24, 30 and 5 km respectively near Trenton, Pottsboro, and Roanoke, TX. This signaling would significantly raise the noise floor in the SDARS band and could result in wide-area service outages to our customers travelling in these areas.

The Plano test area is in a densely populated and travelled location only 18 miles north of downtown Dallas, TX that includes the North Central Expressway (US Hwy 75) which carries 133k cars / day. Similarly the Roanoke test area includes I-35 W which carries 46k cars / day. The Trenton and Pottsboro test areas also cover busy highways and expressways with high traffic volumes.

For these reasons SiriusXM requests that Mustang notch the SDARS band +/- 5 MHz (2315 – 2350 MHz) from their application.

Sincerely,
Douglas Ayerst
Principal Chief Engineer
SiriusXM Satellite Radio
Office: 954-571-4318

From: David.Tolman@L-3com.com [mailto:David.Tolman@L-3com.com]
Sent: Monday, November 10, 2014 4:15 PM
To: Ayerst, Douglas
Subject: FCC Frequency Coordination

Mr. Ayerst –

The Aerospace and Flight Test Radio Coordinating council provided your contact information as someone who could possibly assist me at Sirius XM.

L-3 Mustang is designing a proximity radar device and is planning a series of outdoor tests over the next three years. Each of these tests will be of short duration (less than a day) and involve our device transmitting while airborne for intervals of less than one minute. As part of our test planning we applied for an experimental license from the FCC. They indicated we needed to coordinate the usage of the 2.320-2.345 GHz frequency with your company as you hold a license to transmit SDARS in that band.

The areas that we are requesting in our FCC license request:

- Regular use at the L-3 facility located at 6900 K Avenue, Plano TX 75074 for the duration of the experimental license. L-3 Mustang intends to operate on a regular basis as part of experimental design testing, and verification of design.
- Extremely infrequent use – estimated at no more than 16 days total at each location – for multiple short (less than 1 minute) data collections from an airborne vehicle within 100 Km of our L-3 facility located at 6900 K Avenue, Plano TX 75074

In each case the transmitted power from our device is very low (less than 3 Watts) and of very short duration (less than 1 minute of transmission).

What is involved to coordinate usage of this portion of the frequency band?

David Tolman
Sr. Systems Engineer
Office: (972) 396-4470
Cell (972) 897-8373



If you haven't done so already, please update my e-mail address in your address book to:

David.Tolman@L-3Com.com

From: [Morris, Wayne L @ ISG - MID](#)
To: [Tolman, David \(IE\) @ SSG - PE - MT](#)
Cc: [dataentry@aftrcc.org](#); [Don Hoehn \(treasurer@aftrcc.org\)](#); "Danny Hankins"; [don.p.barnett@lmco.com](#)
Subject: AFTRCC ICN 1529-14/5310 (L3 Mustang Tech/Testing-Plano, TX) (UNCLASSIFIED)
Date: Wednesday, November 12, 2014 9:43:16 AM

See pre operations notification comment in AFTRCC comments below.

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This email is your AFTRCC coordination.

This coordination includes this header information, DOD Area Frequency Coordinator comments and AFTRCC comments. These messages must not be separated.

This coordination is advisory only and not binding on the FCC. Applicants are advised that this coordination does not constitute a judgment that the frequency(ies) is best suited for the applicant's purpose nor that the frequency(ies) is exclusive to the applicant. Flight Test frequencies are shared and may require scheduling with other users.

In return for AFTRCC's processing of the applicant's coordination request, the applicant agrees to release and hold harmless AFTRCC, its officers, directors, agents, members, and representatives from any claims, losses or expenses that may arise from the use of the frequency.

This coordination is not an authorization to transmit. A copy of this coordination must accompany application to the FCC.

Signed:
Wayne Morris
AFTRCC Telemetry Coordinator
903-457-6949

From: Sanchez, Luis G (Guillo) CIV USARMY (US) [mailto:luis.g.sanchez10.civ@mail.mil]
Sent: Wednesday, November 12, 2014 9:27 AM
To: Morris, Wayne L @ ISG - MID
Cc: Sanchez, Edwin (Ed) CIV USARMY HQDA CIO G-6 (US)
Subject: RE: AFTRCC ICN 1529-14/5310 (L3 Mustang Tech/Testing-Plano, TX) (UNCLASSIFIED)

Classification: UNCLASSIFIED

AFMO CONCUR WITH AFTRCC ICN 1529-14/5310 (L3 Mustang Tech/Testing-Plano, TX). COORDINATION NUMBER
[AFMO140751//GUILLO-LUIS.G.SANCHEZ10.CIV@MAIL.MIL-210-221-0454//](#)

C024 Comments: DoD database check shows no conflicting DoD assignments within 50 mile radius.

V/R

Guillo

Office:

COM: 210-221-0454

DSN: 312-471-0454

From: wayne.morris@L-3com.com [<mailto:wayne.morris@L-3com.com>]
Sent: Tuesday, November 11, 2014 1:06 PM
To: Sanchez, Luis G (Guillo) CIV USARMY (US)
Cc: Sanchez, Edwin (Ed) CIV USARMY HQDA CIO G-6 (US)
Subject: AFTRCC ICN 1529-14/5310 (L3 Mustang Tech/Testing-Plano, TX)

AFTRCC concurs with and requests DoD AFMO-US&P concurrence/coordination on the following FCC license request.

Applicant:

L3 Mustang Technology

6900 K. Ave.

Plano, TX 75074

POC: David Tolman (972-396-4470)

Frequencies: 2310-2320.0 MHz/2345-2360.0 MHz/2360-2390.0 MHz

Station Classes: MOEC/MOEA

Emissions: 150MP1N/100MQ1N/826KF1D

Power: 1.5 watts (3 watts ERP)

Location: Plano, TX (33-04-03N 96-40-57W)

MIRAD: 62 miles (100KM) MOEA operations

Maximum Flight Altitude: 8000,AGL

Dates: 2015-01-01 thru 2017-12-31

AFTRCC comments: Requires local coordination (48 hr notification) with Dallas Area Fight Test Radio Coordinating Council (DAFTRCC) for airborne operations. Email don.p.barnett@lmco.com with

CC to wayne.morris@l-3com.com.

Additional comment: the bands 2310-20 and 2345-2360 MHz have be reallocated on a primary basis to the Wideband Communications Service (WCS). Additional coordination with WCS may be required.

Please reply via return email as to concurrence, non concurrence, scheduling, or other comments.

Signed:

Wayne Morris

AFTRCC Telemetry Coordinator

903-457-6949

Classification: UNCLASSIFIED

Caveats: FOUO//AFTRCC