

FAA Grants Spectrum Use for APG Demo.txt

From: rodney.murphy@faa.gov
Sent: Thursday, September 29, 2016 11:06 AM
To: Davis, Marque
Cc: Thomas.Ahn@faa.gov; alan.m.fish.civ@mail.mil; donald.nellis@faa.gov; Charles.Thornton@faa.gov; phalla.keo@faa.gov; Stephanie.Thomas@faa.gov; timothy.j.pawlowitz@faa.gov; Lorena.Carvajal@faa.gov; Porco, Ron; Lenzini, Raymond; Anderson, Nick; Bartley, Jennifer
Subject: RE: Spectrum Support

Granted, however, you will need a NG T coordination for your request. We are simply trying to determine your needs around the three frequency bands you are requesting.

Rodney Murphy
Federal Aviation Administration
Spectrum Engineering and Policy
Fixed/Land Mobile,UAS, Satellite, Experimentals
FAA FAS Representative
202-267-9501

From: Davis, Marque [mailto:Marque.Davis@elbitsystems-us.com]
Sent: Thursday, September 29, 2016 11:57 AM
To: Murphy, Rodney (FAA)
Cc: Ahn, Thomas (FAA); alan.m.fish.civ@mail.mil; Nellis, Donald (FAA); Thornton, Charles (FAA); Keo, Phalla (FAA); Thomas, Stephanie (FAA); Pawlowitz, Timothy J (FAA); Carvajal, Lorena (FAA); Porco, Ron; Lenzini, Raymond; Anderson, Nick; Bartley, Jennifer
Subject: Re: Spectrum Support

Mr. Murphy,

Thank you for your response. As I told Tom the FCC mandated that I get a "Pre-Coordination" Document from the FAA for the 225-512 and 1350-2690 Bands. I spoke with Tom this morning explaining that our systems can operate well with your restrictions to ensure no EMI issue occur.

All other spectrum support requirements along with the above have been submitted to the FCC.

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Sent from my iPhone

Regards,
Marque H. Davis P.E.S/P.E.M
Elbit Systems of America
PH: (817) 231-4473
ML: (817) 301-7093

On Sep 29, 2016, at 10:51, "rodney.murphy@faa.gov" <rodney.murphy@faa.gov> wrote:
The FAA can only comment on usage impacting our Aeronautical
Assignment Group (AAG) bands and aeronautical radionavigation bands.
All other parts of your request must be reviewed thru the FCC process.

30 – 512 MHz Range: 3 (See Note Below Table)

FAA comment: If actual operating range is limited to 30-88 MHz,
then FAA pre-coordination is not required. However, notch out 74.6-75.4
MHz.

FAA will not support use of AAG bands (107-137 MHz and 328.6-
335.4 MHz) for this request. Also, proponent must coordinate with DOD
sponsor and/or MAG for use of 30-50 MHz, 138-144 MHz, 225-328.6 MHz
and 335.4-399.9 MHz.

225 – 512 MHz Range:

Coordinate 225-328.6 MHz and 335.4-399.9 MHz with MAG thru
FCC. Frequencies in those MAG bands must avoid Air Traffic Control
channels. The FAA non-concurs with usage in the 328.6-335.4 MHz band.

1350 – 2690 MHz Range:

Avoid 1350-1370 MHz and 1550-1610 MHz. If required, if feasible
and requested, FAA will provide a NG T coordination for a frequency in
the 1370-1390 MHz band. Otherwise, FAA has no comment on this range.

Rodney Murphy
Federal Aviation Administration

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Spectrum Engineering and Policy
Fixed/Land Mobile,UAS, Satellite, Experimentals
FAA FAS Representative
202-267-9501

From: Davis, Marque [mailto:Marque.Davis@elbitsystems-us.com]
Sent: Wednesday, September 28, 2016 7:55 AM
To: Ahn, Thomas (FAA); APG-FMO Alan Fish
Cc: Nellis, Donald (FAA); Murphy, Rodney (FAA); Thornton, Charles (FAA); Keo, Phalla (FAA); Thomas, Stephanie (FAA); Pawlowitz, Timothy J (FAA); Carvajal, Lorena (FAA); Keo, Phalla (FAA); Thornton, Charles (FAA); Porco, Ron; Lenzini, Raymond; Anderson, Nick; Bartley, Jennifer
Subject: RE: Spectrum Support

Thomas,

Per your request the below data is provided:

Purpose of Request: An STA is submitted to the FCC to operate a Non JF-12 (DD-1494) Certified Communications Systems at Aberdeen Proving Ground (APG), MD in support of an operational communications demonstration.

Description of Operation: U.S. Army C4i Division at APG has requested Elbit Systems of America provide a demonstration of communications capabilities via a live operational demonstration at Aberdeen Proving Ground during the period of 14 – 18 November 2016.

Location of Transmitters: Aberdeen Proving Grounds, Maryland,
Latitude: 39, 28, 42N 76, 09, 51W

Radius of Mobile Operations: 50KM

Operations Band for MCTR-7200 Radio: Band I

Operations Band for PNR-1000 Radio: Band II

Operational Band for HC-LOS System: Band III

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Number of Frequencies required Per System:

30 – 512 MHz Range: 3 (See Note Below Table)

225 – 512 MHz Range: 2

1350 – 2690 MHz Range: 2

Technical Data: (See Table)

Frequency Ranges 30 – 512 MHz and 1350 – 2690 MHz:

Radio
Actio
n
Frequency
Statio
n
Class
Output
Power/ERP
Mean/
Peak
Frequency
Tolerance
(+/-)
Emission
Designator
Modulating Signal
Data Rate (Max)
MCTR-7200
New
30.000-512.000 MHz
MO
5.0 W
4.999990 W
M

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50 %
25K0F9W
DPSK/GMSK/BFSK
NBWF: up to 115.2 Kbps over
a 25KHz Channel
WBWF: Up to 500 Kbps over
a Single Channel
MCTR-7200
New
30.000-512.000 MHz
MO
5.0 W
4.999990 W
M
50 %
25K0F9W
DPSK/GMSK/BFSK
NBWF: up to 115.2 Kbps over
a 25KHz Channel
WBWF: Up to 500 Kbps over
a Single Channel
MCTR-7200
New
30.000-512.000 MHz
MO
5.0 W
4.999990 W
M
50 %
25K0F9W
DPSK/GMSK/BFSK
NBWF: up to 115.2 Kbps over
a 25KHz Channel
WBWF: Up to 500 Kbps over
a Single Channel
PNR-1000
New
225.000-512.000 MHz

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MO

50.0 W

49.9990 W

M

50 %

200KF9W

BFSK/DPSK/QPSK

UP to 320 Kbps gross data,

19.2 Kbps per Link

PNR-1000

New

225.000-512.000 MHz

MO

50.0 W

49.9990 W

M

50 %

1M00F9F

BFSK/DPSK/QPSK

UP to 320 Kbps gross data,

19.2 Kbps per Link

HC-LOS

GRX-4000

New

1350.000-2690.000 MHz

FX

20.0 W

19.990W

M

50 %

125KF9W

16 QAM

100Mbps for PtP, 200Mbps

AU+SU

HC-LOS

GRX-4000

New

1350.000-2690.000 MHz

FAA Grants Spectrum Use for APG Demo.txt

FX

20.0 W

19.990 W

M

50 %

125KF9W

16 QAM

100Mbps for PtP, 200Mbps

AU+SU

Notes: Highlighted systems will operate in the 30 – 88 MHz Range but included because they can operate up to 512 MHz

Additional technical data can be provided upon request.

Regards

Marqué H. Davis Sr., 1SG Ret.

Elbit Systems of America -

Fort Worth Operations (ESA-FWO)

Lead Systems Engineer FireCon

Email: Marque.Davis@elbitsystems-us.com

marque.davis@us.army.mil

Phone: (817) 231-4473 (Office)

(940) 387-4389 (SIV LAB, ESA-Denton)

(817) 301-7093 (Mobile)

(817) 306-6873 (Fax)

A veteran is someone who, at one point in their life,
wrote a blank check made payable to
The United States of America for any amount,
up to and including their life.

o7o

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

FAA Grants Spectrum Use for APG Demo.txt

From: Thomas.Ahn@faa.gov [mailto:Thomas.Ahn@faa.gov]

Sent: Tuesday, September 27, 2016 2:32 PM

To: Davis, Marque <Marque.Davis@elbitsystems-us.com>

Cc: donald.nellis@faa.gov; rodney.murphy@faa.gov; Charles.Thornton@faa.gov;

phalla.keo@faa.gov; Stephanie.Thomas@faa.gov; timothy.j.pawlowitz@faa.gov;

Lorena.Carvajal@faa.gov; phalla.keo@faa.gov; Charles.Thornton@faa.gov

Subject: RE: Spectrum Support

Marque

Based on conversation, you have indicated there is a draft DD1494 showing spectrum characteristics of the equipment.

I would appreciate if you can send me a copy of the draft of DD1494. Also appreciate if you provide the following information.

1. Intent of demonstration.
2. Number of frequency for the each band of 225-512 MHz and 1350-2690 MHz.
3. Geographical latitude and longitude if the transmission is fixed location.
4. Modulation technique for the each band, and data rate.
5. EIRP power

Sincerely

Thomas Ahn (AJW-1C2)

FAA Spectrum Assignment and Engineering

202-267-4909

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

From: Thomas, Stephanie (FAA)

Sent: Tuesday, September 27, 2016 1:52 PM

To: Pawlowitz, Timothy J (FAA); Carvajal, Lorena (FAA); Ahn, Thomas (FAA)

Cc: Nellis, Donald (FAA); Murphy, Rodney (FAA); Thornton, Charles (FAA); Keo, Phalla (FAA)

Subject: RE: Spectrum Support

Please work with Phalla and Charles on the response.

FAA Grants Spectrum Use for APG Demo.txt

Stephanie L. Thomas
Manager, Spectrum Engineering Services - ESA
(404) 305-6674 (office)
(404) 558-7060 (cell)

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

From: Pawlowitz, Timothy J (FAA)
Sent: Tuesday, September 27, 2016 12:41 PM
To: Thomas, Stephanie (FAA); Carvajal, Lorena (FAA); Ahn, Thomas (FAA)
Cc: Nellis, Donald (FAA); Murphy, Rodney (FAA)
Subject: Re: Spectrum Support

Lorena, Tom,

Please work with Stephanie and/or Marque Davis to coordinate these requirements.

Let me know if there are any questions. Please provide one, consolidated FAA response.

Thank you!
Tim

Sent from my iPhone

> On Sep 16, 2016, at 1:45 PM, Thomas, Stephanie (FAA) <Stephanie.Thomas@faa.gov>
wrote:

>
> Tim and Don
>
> Do you have any input see message below.

>
> Thanks,

>
>

> Stephanie L. Thomas
> Manager, Spectrum Engineering Services - ESA

FAA Grants Spectrum Use for APG Demo.txt

> (404) 305-6674 (office)
> (404) 558-7060 (cell)
>
> -----Original Message-----
> From: Davis, Marque [mailto:Marque.Davis@elbitsystems-us.com]
> Sent: Friday, September 16, 2016 1:37 PM
> To: Thomas, Stephanie (FAA)
> Subject: Spectrum Support
>
> Ms. Thomas,
>
> Timothy Bogan FAA-FMO Fort Worth recommended I contact you for possible help
with the below. Please contact me when you have an opportunity.
>
> My company is planning a communications demo at Aberdeen Proving Ground, MD,
13-18 Nov 16, operating time 0800-1600 each day. Because the systems are not
DD1494 (JF-12) certified the assignments must come from the FCC vs. APG-FMO. I
submitted my application to the FCC this morning and because I've requested
assignments in 225-512 & 1350-2690 MHz ranges I received a message from the FCC
stating that I needed to provide them Pre-Coordination documentation from the FAA.
>
> The below is provided:
>
> Freq: 225-512 MHz
> Qty: 4ea Narrowband / 1ea Wideband
> B/W: 25KHz (NB) / 1MHz (WB)
> Pwr: 5W / 50W
> Use: ML
>
> Freq: 225-512 MHz
> Qty: 1ea
> B/W: 200 KHz
> Pwr: 20W
> Use: ML
>
> Freq: 1350-2690 MHz
> Qty: 2ea (TX/RX)
> B/W: 1 MHz

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> Pwr: 20W
> Use: FX
>
> The mobile systems will operate up to a 50KM radius around APG and will be ground based only. The 1350-2690 MHz will be used for a high capacity LOS system.
>
> Additional information is available as needed. Please feel free to contact me at the below ML Number.
>
> Sent from my iPhone
>
> Regards,
> Marque H. Davis P.E.S/P.E.M
> Elbit Systems of America
> PH: (817) 231-4473
> ML: (817) 301-7093
>
>
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