

**Schuemann, Vance W.**

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**From:** Sydney.Bradfield@faa.gov  
**Sent:** Friday, June 09, 2006 11:35 PM  
**To:** Schuemann, Vance W.  
**Cc:** donald.nellis@faa.gov; John.Cabala@faa.gov; timothy.j.pawlowitz@faa.gov; Steve.Tozon@navy.mil  
**Subject:** Fw: Coordination request for 1378 MHz

Vance,

Subject to the below conditions, we conditionally concur to your request for the described Wideband Networking Waveform (WNW) Digital Command and Control Network on 1378 MHz under coordination NG T060359 (includes the San Diego airborne area encompassing the two ground platforms):

- (1) Emission Bandwidth complies with STA 0359-EX-ST-2005 requiring Emission Designator of 3M00F7W
- (2) Approval is obtained from DOD to operate on a coordinated basis and scheduling with the Western Area Frequency Coordinator, Steve Tozon, (805) 989-7983, is required at least 48 hours in advance of the use of the frequency 1378 MHz.
- (3) Deployment of Northrop Grumman's WNW Network shall be subject to FAA Policy considerations that may not be favorable to its use of the Aviation band above 1370 MHz and FAA reserves the right to re-visit Northrop Grumman's continued use of the band.
- (4) FAA prohibits and will oppose any attempt to operate the WNW system with any emission below 1370 MHz.

Sydney Bradfield  
 WSA Spectrum Engineering Services  
 Operations Engineering Section, AWP-471.2  
 310-725-3671, DSN 958-3671

----- Forwarded by Sydney Bradfield/AWP/FAA on 06/09/2006 07:49 PM -----

**Donald Nellis/AWA/FAA**

To: Sydney Bradfield/AWP/FAA@FAA

CC: John Cabala/AWA/FAA@FAA, Timothy J Pawlowitz/AWA/FAA@FAA

06/07/2006 07:24 PM

Subject: Re: Fw: Coordination request for 1378 MHz [Link](#)

Sydney,

The FAA had previously coordinated a temporary assignment for the Wideband Networking Waveform on 1378 MHz with an emission designator of 3M00F7W (see attached STA 0359-EX-ST-2005). This previous STA had a requirement for coordinating their operation with the Western Area Frequency Coordinator. We can approve this request if it has the same emission bandwidth and they obtain approval from the DoD to operate on a coordinated basis. Remind Northrop Grumman that they may have trouble deploying this system in this band and that the FAA will oppose any attempt to operate the system with any emission that extends below 1370 MHz.

6/12/2006

Don Nellis

**Sydney Bradfield/AWP/FAA**

06/07/2006 09:44 PM

To Donald Nellis/AWA/FAA@FAA, Timothy J Pawlowitz/AWA/FAA@FAA

cc John Cabala/AWA/FAA@FAA

Subject Fw: Coordination request for 1378 MHz

Don and Tim,

I'm working on a request below submitted by Northrop Grumman Space and Mission Systems Corp. (NGSMS) for a two year experimental license on frequency 1378 MHz to test and demonstrate a Wideband Networking Waveform digital command and control network for both airborne (20,000 ft) and ground platforms in San Diego area for their customer in support of the Airborne and Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS), Contract Number: FA8709-04-C-0011.

With respect to technical frequency compatibility considerations, although I do not see the exact bandwidth from the parameters provided below (I'll try to obtain it), within 1 MHz at 1377 MHz, there is a Navy assignment at Miramar 7 miles away for a ground operation, and 91 nmiles away, a co-channel ground ops training use again at 29Palms and Ft. irwin (1378.5) a little further 144 nmiles.

Please review for any national policy and compatibility issues.

Thanks,

Sydney Bradfield  
WSA Spectrum Engineering Services  
Operations Engineering Section, AWP-471.2  
310-725-3671, DSN 958-3671

----- Forwarded by Sydney Bradfield/AWP/FAA on 06/07/2006 06:07 PM -----

"Schuemann, Vance W."  
<vanceschuemann@paulhastings.com>

To Sydney Bradfield/AWP/FAA@FAA

cc

Subject Coordination request for 1378 MHz

05/30/2006 11:51 AM

Dear Mr. Bradfield:

On behalf of Northrop Grumman Space and Mission Systems Corp. ("NGSMS"), we herein request coordination of frequency 1378 MHz, for which NGSMS will apply with the FCC to operate under a FCC experimental authorization for a two year license term. NGSMS requires the use of frequency 1378 MHz to test and demonstrate a Wideband Networking Waveform ("WNW") digital command and control network for a customer in support of the Airborne and Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS), Contract Number: FA8709-04-C-0011.

Please send me the NGT number for this coordination so NGSMS may provide the NGT number to the FCC.

The following are the parameters of NGSMS proposed use of frequency 1378 MHz:

6/12/2006

- peak envelope power (PEP):

100 W

- type of antenna:

omnidirectional

- transmit antenna gain:

N/A

- elevation above sea level of the antenna site and height above ground of the focal point of the antenna:

Two airborne transmitters mounted on aircraft, flying at a minimum altitude of 3,050 meters and a maximum altitude of 6,100 meters, within a 60 kilometer radius around a centerpoint of 32°59'25.3"N and 117° 04'46.3" in San Diego (San Diego County), California.

Two fixed/base antenna sites in Rancho Carmel (San Diego), California:

\* 15180 Innovation Drive (32° 59'30.6"N and 117° 04'48.24"W) with an omnidirectional antennae that will be positioned at ground level with a height of 25.0 meters AGL and an elevation of 254.5 meters ASL.

\* 1 Rancho Carmel (32° 59'25.3"N and 117° 04'26.5"W) with an omnidirectional antennae that will be positioned at ground level with a height of 2.0 meters AGL and an elevation of 249.0 meters ASL.

- antenna polarization:

Vertical

- the azimuth that the antenna is pointed or appropriate designator to indicate whether the antenna is rotating, non-directional, etc.:

N/A

- pulse repetition rate (PRR) that the equipment is capable of operating on to include PRR stagger sequences if appropriate, whether the PRR is adjustable and what PRR's the equipment can accept, and any other information that would be helpful in understanding the pulse characteristics (staggered, jittered, fixed) of the equipment:

134 pulses/sec

- pulse width:

5.234 msec

- equipment nomenclatures:

NGST Radio Systems, model number 000-00-0001, transmitters with omnidirectional antenna

- whether the equipment is capable of blanking transmissions in certain azimuths and any limitations with respect to blanking:

N/A

- radius of operations if appropriate:

Two airborne transmitters mounted on aircraft, flying at a minimum altitude of 3,050 meters and a maximum altitude of 6,100 meters, within a 60 kilometer radius around a centerpoint of 32°59'25.3"N and 117° 04'46.3" in San Diego (San Diego County), California.

- detailed description of the proposed operation to include any technical parameters that will be altered during operations:

NGSMS requires the use of frequency 1378 MHz to test and demonstrate a Wideband Networking Waveform ("WNNW") digital command and control network in support of the Airborne and Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS), Contract Number: FA8709-04-C-0011.

Please do not hesitate to contact me or Fred Berrong of Northrop Grumman (Tele: (661) 272-7033; Email: fred.berrong@ngc.com) if you have any questions.

Thank you,

Vance

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Vance W. Schuemann, Government Affairs Policy Advisor | Paul, Hastings, Janofsky & Walker LLP | 875 15th Street, N.W., Washington, D.C. 20005 | direct: 202 551-1913 | main: 202 551 1700 | fax: 202 551 0313 | vanceschuemann@paulhastings.com |

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