

**SBE Comments: ET Docket 00-258 Fourth NPRM
DoD Uplinks at 2 GHz**

E-mail Attempt to Frequency Coordinate with DoD

E-MAIL to U.S. NAVY

From: Dane Ericksen <dericksen@h-e.com>
Date: Fri Sep 26, 2003 8:53:28 AM US/Pacific
To: navyspectrum@navemscen.navy.mil
Cc: Turkiewicz George <george.turkiewicz@navy.mil>, Kidd Thomas P. <thomas.kidd@navy.mil>, Tolson Michelle D <michelle.tolson@navy.mil>, Fine Howard <howard@pactv.com>, Benedict Ray <rbenedict@cbs.com>, Beaver Ralph <bevo@media-alert.com>, Otey David <dotey@sbe.org>, Imlay Chris <bfitpc@aol.com>
Subject: need technical details for Laguna Peak DoD uplink
Attachments: There are 2 attachments

September 26, 2003

Dear Sir or Madam:

Per instructions from Mr. Thomas Kidd, Installation Spectrum Manager, Land Mobile Radio Coordinator, Naval Base Ventura County, CA, Cm: 805-989-3750 DSN: 351-3750, I am forwarding this request to you.

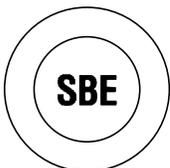
I look forward to receiving technical details on the 1.7 GHz TT&C uplink now at Laguna Peak; unless you indicate otherwise, I will use those technical parameters, except for the shifted frequency to the 2,025-2,110 MHz TV BAS band, as the basis for estimating whether a high-power DoD uplink at Laguna Peak, in the Number 2 TV market in the United States (Los Angeles, with its extensive ENG use), would frequency coordinate.

The comment filing deadline is November 3, so in order to allow a reasonable time period to perform the calculations and prepare the SBE comments, receipt of this information is respectfully requested by no later than October 10, 2003.

Thank you in advance for your cooperation.

Dane E. Ericksen, P.E., CSRTE
Chairman, SBE FCC Liaison Committee
c/o Hammett & Edison, Inc.
dericksen@h-e.com
707/996-5200 voice
707/996-5280 fax

cc1: Thomas P. Kidd, Michele Tolson, George Turkiewicz



SOCIETY OF BROADCAST ENGINEERS, INC.
Indianapolis, Indiana

031005
Figure 13A

**SBE Comments: ET Docket 00-258 Fourth NPRM
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cc2: Howard Fine, SCFCC

cc3: Ray Benedict, Ralph Beaver, David Otey, Chris Imlay, SBE

From: "Kidd, Thomas P" <thomas.kidd@navy.mil>

Date: Fri Sep 26, 2003 7:15:46 AM US/Pacific

To: "Dane Ericksen" <dericksen@h-e.com>

Cc: "Tolson, Michelle D CIV" <michelle.tolson@navy.mil>, "Turkiewicz, George NAVAIR"

<george.turkiewicz@navy.mil>, "Benedict Ray" <rcbenedict@cbs.com>, "Beaver Ralph"

<bevo@media-alert.com>, "Otey David" <dotey@sbe.org>, "Poray John" <jporay@sbe.org>, "Imlay

Chris" <bfitpc@aol.com>, "Fine Howard" <howard@pactv.com>, "Daniels, Jesse (NCTSSD)"

<jesse.daniels@navy.mil>

Subject: RE: Location of NSCN dish?

Dane,

I believe a request of this detail should be routed through your FCC point of contact to the Navy Marine Corp Spectrum Center (NMSC). I will provide the information to them and they will provide it through official channels as appropriate.

Your original request was to validate or correct inaccurate data you had already received. It was appropriate for my office to correct your data since I will also be correcting the source from which it was derived. However, this request is for new information. Any requests for new data should be routed through the appropriate official channels to ensure it is properly released.

Contact information for the Navy Marine Corp Spectrum Center can be found at <http://www.navemscen.navy.mil/> or navyspectrum@navemscen.navy.mil (Note: The Navy Marine Corp Spectrum Center was recently renamed from NAVEMSCEN)

Thomas P. Kidd III, NBVC/N60VF

Installation Spectrum Manager

Land Mobile Radio Coordinator

Naval Base Ventura County, CA

Cm: 805-989-3750 DSN: 351-3750

thomas.kidd@navy.mil

kiddt@mugu.navy.smil.mil

SXXI Account: NBVC

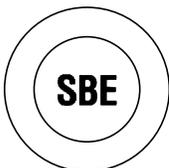
-----Original Message-----

From: Dane Ericksen [mailto:dericksen@h-e.com]

Sent: Tuesday, September 16, 2003 11:15

To: Kidd, Thomas P

Cc: Tolson, Michelle D CIV; Turkiewicz, George NAVAIR; Benedict Ray; Beaver Ralph; Otey David; Poray John; Imlay Chris; Fine Howard



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Figure 13B

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Subject: Re: Location of NSCN dish?

<< File: Fig 1.030317.1.pdf >> << File: ATT183167.txt >> September 16, 2003

Tom:

Thanks for the info. 34-06-30.3 N, 119-03-53.0 W, NAD83, converts to 34-06-30.3 N, 119-03-49.6 W, NAD27; these coordinates plot to Laguna Peak, and not to the creek bed near the Highway 1 off ramp leading to the Pacific Missile Range. So where did the 34-06-55 N, 119-04-50 W, datum not specified, coordinates given in the ET 00-258 Fourth NPRM, that NTIA reported to the FCC, come from?

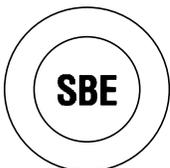
I further note that the GPS information shows a site elevation of 1,476 feet AMSL, which is consistent with the 1,457 feet AMSL shown on the Point Mugu USGS topographic map for the highest elevation for Laguna Peak (and much higher than the 12 ft AMSL obtained from plotting the incorrect Laguna Peak coordinates on the Point Mugu topo).

So, I am now satisfied that the Naval Satellite Control Network (NSCN) "Laguna Peak" 1.7 GHz TT&C uplink antenna is, in fact, at Laguna Peak.

Now what SBE needs in order to undertake its frequency coordination study are 1) the nominal dish height AGL at Laguna Peak (and I realize that this height will vary with the uplink's elevation angle, so a middle-range height will be fine); 2) the maximum transmitter power output (TPO); 3) the channelization plan (i.e., can the uplink frequencies be confined to a particular 12 MHz wide re-farmed TV BAS channel, or will the uplink frequencies be spread over all seven of the re-farmed 2 GHz TV BAS channels?); 4) the waveguide loss; 5) the transmitting antenna main beam gain in dBi; 6) the minimum main-beam elevation angle that will be used; 7) the range of azimuths that will be used; and, most important of all, 8) the radiation pattern envelope (RPE) for the uplink antenna (preferably at 2.0 GHz rather than 1.7 GHz). A critical part of the frequency coordination analysis will be how much "leakage" the uplink antenna has at low elevation angles. A pdf of the most likely new 2 GHz TV BAS band plan is attached.

I realize that this is a lot of information, but all is necessary if SBE is to analyze the interference potential of a co-channel DoD uplink to ENG operations in the LA market. Please note that the FCC NPRM states that successful frequency coordination is a mandatory component of the rulemaking, so whether or not the necessary information to attempt that frequency coordination is provided, and not just for the Laguna Peak DoD uplink but for the other DoD uplinks proposed near active ENG areas, will be reported in the SBE comments to this rulemaking, which are due on November 3, 2003. However, I realize that you will probably only be able to report technical details for the NSCN Laguna Peak uplink.

Regards,



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Figure 13C

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Dane E. Ericksen, P.E., CSRTE
Chairman, SBE FCC Liaison Committee
c/o Hammett & Edison, Inc.
dericksen@h-e.com
707/996-5200 voice
707/996-5280 fax

cc1: Michelle Tolson, George Turkiewicz
cc2: Howard Fine, SCFCC
cc3: Ray Benedict, Ralph Beaver, David Otey, Chris Imlay, John
Poray

Note: The attachments included a pdf of the ET Docket 00-258 Fourth NPRM, and a pdf of a map showing the actual Laguna Peak location versus the NSCN Laguna Peak location based on the Fourth NPRM coordinates (Figure 2A to this filing).

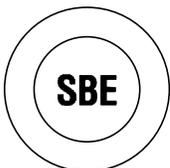
E-MAIL to U.S. AIR FORCE

From: Dane Ericksen <dericksen@h-e.com>
Date: Tue Oct 21, 2003 2:44:30 PM US/Pacific
To: Morgan Bill <william.morgan2@wpafb.af.mil>
Cc: Stephens Earl <earl.stephens@kirtland.af.mil>, Benedict Ray <rcbenedict@cbs.com>, Beaver
Ralph <bevo@media-alert.com>, Otey David <dotey@sbe.org>, Otey David <david.otey@att.net>,
Imlay Chris <bfitpc@aol.com>, Poray John <jporay@sbe.org>, Deme Al <apdeme1@msn.com>
Subject: actual Kirtland AFB uplink coordinates?
Attachments: There are 3 attachments

October 21, 2003

Dear Mr. Morgan:

In response to our telephone call earlier today, I am sending this email to confirm my request for more accurate geographic coordinates for the TT&C uplink dish at Kirtland AFB. As I explained, the FCC has issued a Notice of Proposed Rulemaking (NPRM), ET Docket 00-258, proposing to relocate up to 11 DoD uplinks out of 1.8 GHz and into the 2,025-2,110 MHz TV Broadcast Auxiliary Services (BAS) band. This band is used for electronic news gathering (ENG), especially in the larger TV markets. A pdf of the NPRM is attached. The reason for this move is to make spectrum available for



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Figure 13D

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Third Generation (3G) wireless services at 1,710-1,755 MHz, which I understand is now used by DoD for point-to-point terrestrial links. This, in turn, will require those links to be migrated to the 1,761–1,842 MHz Space Ground Link System (SGLS) band, which may in turn require some or all of the 11 DoD uplinks identified in the NPRM to be moved to 2 GHz.

Unfortunately, one of those larger TV markets is Albuquerque, the location of Kirtland AFB. As shown in Paragraph 26 of the NPRM, the Kirtland AFB uplink coordinates are given as 35-03-00 N, 106-24-00, datum not specified. However, and as shown by the attached Figure 5, those coordinates plot to well east of Albuquerque, in the Cibola National Forest, in a creek bed, and between two quarries, rather than to any portion of Kirtland AFB, and are almost certainly incorrect. In order to undertake the engineering studies the NPRM offers interested parties to make (e.g., shadowgraph and/or terrain profile studies from a DoD uplink to one or more ENG-RO (ENG receive only) sites), it is, of course, necessary to have accurate coordinates for the uplink. Either NAD27 or NAD83 coordinates are acceptable, so long as you indicate which datum.

Please note that, as stated at Paragraph 30 of the NPRM, this rulemaking is contingent on successful frequency coordination, and, as noted at Paragraph 31, this frequency coordination is done by SBE. As Chairman of the SBE's FCC Liaison Committee, I have been tasked with drafting the SBE comments. The comment deadline is November 3, 2003.

In addition to the true Kirtland AFB uplink coordinates, SBE also needs technical details regarding the Air Force uplinks, such as:

TPO

waveguide loss

dish gain

dish RPE (radiation pattern envelope)

dish C.O.R. height AGL and AMSL (nominal heights are fine)

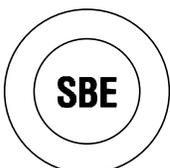
range of the dish azimuths

range of the dish elevation angles

channel width and modulation type of TT&C transmissions

channelization plan; that is, will the Air Force uplink frequencies be confined to just a few TV BAS channels, or will uplink frequencies be spread out over virtually all seven of the re-farmed, 12 MHz wide, TV BAS channels? (please refer to the attached figure showing the most likely frequency plan for 2 GHz TV BAS channels).

Although this information has been requested through other DoD channels, so far it has not been forthcoming. In the event the 2 GHz parameters do not yet exist, the existing 1.8 GHz parameters would be an acceptable substitute. If necessary, my request for the true Kirtland AFB uplink coordinates can be separated from my request for more specific technical details for the Kirtland AFB and other AFB uplinks.



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Figure 13E

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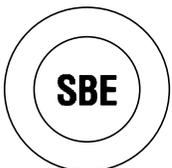
E-mail Attempt to Frequency Coordinate with DoD

Thank you for whatever assistance you can provide.

Dane E. Ericksen, P.E., CSRTE
Chairman, SBE FCC Liaison Committee
c/o Hammett & Edison, Inc.
dericksen@h-e.com
707/996-5200 voice
707/996-5280 fax

cc1: Mr. Earl Stephens, Kirtland AFB
cc2: Ray Benedict, Ralph Beaver, David Otey, Chris Imlay, John Poray
cc3: Al Deme, Albuquerque SBE frequency coordinator

Note: The attachments included a pdf of the ET Docket 00-258 Fourth NPRM, and a pdf of a map showing the Kirtland AFB uplink location based on the Fourth NPRM coordinates (similar Figure 5A to this filing, but without the suspected actual uplink location indicated, which was not known at the time the e-mail was sent), and a chart showing the old and new 2 GHz TV BAS band plans.



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Figure 13F