John Kennedy

From: Goodman, Stephen [SGoodman@wbklaw.com]
Sent: Tuesday, June 06, 2006 3:31 PM
To: John Kennedy
Cc: John Stolte; Maclay.Tim@orbcomm.com; Hopko.Tony@orbcomm.com
Subject: RE: FCC File # 0108-EX-PL-2006

John – one correction, as reflected below (for the gateway downlink, the power density is -45.6 dBW/Hz, not -23 dBW/Hz). Otherwise the emission designators and other information you listed was correct. Sorry to be slow in getting back to you, but we had to dig the 1993 application out of the files to make sure we had the information right.

Steve Goodman

From: John Kennedy [mailto:John.Kennedy@fcc.gov]
Sent: Monday, June 05, 2006 1:54 PM
To: Goodman, Stephen
Subject: RE: FCC File # 0108-EX-PL-2006

Mr. Goodman,

Any response from Orbcomm verifying the information below?

Please verify that the transmitter on the satellite serving as the downlink to the Gateway earth station has the emission 44K0G1D at 11.2 watts peak ERP and a power density of -45.6 dBW/Hz~~-23 dBW/Hz~~, and the satellite serving as the downlink to the Subscriber earth station has the emission 10K4G1D at 20 watts peak ERP and a power density of -23 dBW/Hz. Please make corrections to the aforesaid if necessary.

> -----Original Message-----
> **From:** Goodman, Stephen [mailto:SGoodman@wbklaw.com]
> **Sent:** Friday, June 02, 2006 9:17 AM
> **To:** John Kennedy
> **Subject:** RE: FCC File # 0108-EX-PL-2006
>
> Yes, I have asked the ORBCOMM engineers to verify that information.

> **From:** John Kennedy [mailto:John.Kennedy@fcc.gov]
> **Sent:** Friday, June 02, 2006 8:01 AM
> **To:** Goodman, Stephen
> **Subject:** RE: FCC File # 0108-EX-PL-2006
>
> You may already be doing so with the Orbcomm engineers, but if not, please verify that the transmitter on the satellite serving as the downlink to the Gateway earth station has the emission 44K0G1D at 11.2 watts peak ERP and a power density of -23 dBW/Hz, and the satellite serving as the downlink to the Subscriber earth station has the emission 10K4G1D at 20 watts peak ERP and a power density of -23 dBW/Hz. Please make corrections to the aforesaid if necessary.

-----Original Message-----
From: Goodman, Stephen [mailto:SGoodman@wbklaw.com]
Sent: Thursday, June 01, 2006 6:22 PM
To: John Kennedy
Subject: RE: FCC File # 0108-EX-PL-2006

Under ORBCOMM's naming system, the satellite will be called "J1".

Steve Goodman
Counsel for ORBCOMM

From: John Kennedy [mailto:John.Kennedy@fcc.gov]
Sent: Thursday, June 01, 2006 4:29 PM
To: Goodman, Stephen
Subject: FCC File # 0108-EX-PL-2006

Mr. Goodman,

I also need to know the name being given to the satellite that will be launched.

-----Original Message-----
From: John Kennedy
Sent: Thursday, June 01, 2006 12:59 PM
To: 'Goodman, Stephen'
Subject: FCC File # 0108-EX-PL-2006

Mr. Goodman,

Pursuant to our telephone conversation today, please verify that the transmitter on the satellite serving as the downlink to the Gateway earth station has the emission 44K0G1D at 11.2 watts peak ERP and a power density of -23 dBW/Hz, and the satellite serving as the downlink to the Subscriber earth station has the emission 10K4G1D at 20 watts peak ERP and a power density of -23 dBW/Hz. Please make corrections to the aforesaid if necessary.

> -----Original Message-----
> **From:** Goodman, Stephen [mailto:SGoodman@wbklaw.com]
> **Sent:** Tuesday, May 30, 2006 6:43 PM
> **To:** John Kennedy
> **Cc:** Maclay.Tim@orbcomm.com
> **Subject:** Response to your question
>
> John:
>
> The Subscriber Transmitter on board the satellite is powered at 20 W across a 4 kHz bandwidth.
> The power density is therefore 20/4,000=.005W/Hz. Converting to dBW/Hz, 10log10(.005)= -23dBW/Hz.
>
> Please let me know if you need anything else.
>
> Steve Goodman
>
> -----Original Message-----
> **From:** Goodman, Stephen [mailto:SGoodman@wbklaw.com]

Sent: Friday, May 19, 2006 11:46 AM
To: John Kennedy
Cc: Flessate.Gregory@orbcomm.com
Subject: US Coast Guard Contact Person

John:

I have been told that CDR Tetreault is the COTR (contracting officers technical representative) for this project. His e-mail address is BJTetreault@comdt.uscg.mil.

CDR Brian Tetreault
Commandant, U.S. Coast Guard (CG-7M2)
(202) 267-4013
bjtetreault@comdt.uscg.mil

Steve Goodman
Counsel for ORBCOMM

> -----Original Message-----
> **From:** Goodman, Stephen [mailto:SGoodman@wbklaw.com]
> **Sent:** Friday, May 12, 2006 4:22 PM
> **To:** John Kennedy
> **Subject:** Responses to your questions
>
> John – following are the responses to your information request. Please let me know if there is anything else you need. Thank you in advance for your prompt attention to this matter.
>
> Steve Goodman
> Counsel for ORBCOMM
>
> 1. Are you requesting expedite processing? If so, please justify the need for expedited processing:
>
> ***Yes, ORBCOMM is requesting expedited processing in order to allow the launch of the satellite to occur as planned in the Third Quarter of this year. The satellite is a concept demonstration program for the U.S. Coast Guard (Contract # HSCG23-04-C-ADA001) as part of its mission to monitor ships at sea, a critical element of the Coast Guard's homeland security role. Thus, expedited processing of this experimental application will well serve the public interest.***
>
> 2. Please report the following satellite information specifically pertaining to 0108-EX-PL-2006:
>
> Geostationary or Non-Geostationary: ***Non-Geostationary***
>
> Earth Coverage or Narrow Beam: ***Earth Coverage***
>
> Antenna Polarization: ***Right Hand Circular (RHCP)***
>
> Equatorial Inclination Angle: ***83 degrees***

Apogee in Kilometers: ***950 kilometers***

Perigee in Kilometers: ***950 kilometers***

Period in Hours: ***1.73 hr (104 min)***

Number of satellites: ***We are seeking experimental authority for just one satellite.***

Downlink Peak Effective Radiated Power: ***11.20 W***

Downlink Emission Designator: ***44K0G1D***

3. Please report the following earth station information specifically pertaining to 0108-EX-PL-2006:

ORBCOMM will use all four of its licensed U.S. Gateway Earth Stations to communicate with the satellite.

St Johns	***Arizona***	***North***	***34***	***27***	***23***	***West***	***109***	***33 16***
Arcade	***New York***	***North***	***42***	***31***	***29***	***West***	***78***	***22 57***
East Wenatchee	***Washington***	***North***	***47***	***33***	***12***	***West***	***120***	***10 25***
Ocilla	***Georgia***	***North***	***31***	***30***	***3***	***West***	***83***	***11 0***

Uplink Peak Effective Radiated Power: ***6.100000 kW***

Uplink Emission Designator: ***50K0G7D***

4. Please verify that the 0108-EX-PL-2006 downlink and uplink bands both
137-138 MHz. If they are different, please report the following:

Downlink (Satellite) Band: ***137-138 MHz***

Uplink (Earth Station) Band: ***The satellite will be monitoring AIS transmissions in the 161-163 MHz band, and the Gateway Earth Station uplinks will be in the 148-150.05 MHz band.***

However, ORBCOMM is not seeking experimental authority for the uplink transmissions, because those are already licensed.

-----Original Message-----
From: Goodman, Stephen [mailto:SGoodman@wbklaw.com]
Sent: Wednesday, May 10, 2006 12:45 PM
To: John Kennedy
Subject: Clarification

John:

In order to clarify the material I previously sent you with regard to the ORBCOMM gateway earth stations ("GESs"), following is the requested information:

The GESs track the satellites as they move across the sky. Thus, the Azimuth is 0 to 360 degrees, and the Elevation Angle is 0 to 180 degrees.

The Beamwidth is 23 degrees.

The Gain is 17 dB at the center frequency along the axial boresight.

Finally, Polarization is left and right hand circular.

Please let me know if you need anything else. Thank you.

Steve Goodman
Counsel for ORBCOMM

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