

Anthony Serafini

From: Howard Griboff
Sent: Wednesday, August 31, 2005 2:13 PM
To: Anthony Serafini; Paul Locke; Shahnaz Ghavami; Lisa Cacciatore
Subject: RE[3]: Boeing STA 0519-EX-ST-2005

I think we're just about there, Tony. Yes to a 3-month STA with the notification condition. But the STA should be for an experimental FSS operation, not an experimental ESV operation. Yes, they're trying to simulate an ESV to collect data, but, to (poorly) paraphrase Dr. Seuss, if they're not on a vessel, if they're not on the water, it's not an ESV.

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

From: Anthony Serafini
Sent: Wednesday, August 31, 2005 1:52 PM
To: Howard Griboff; Paul Locke; Shahnaz Ghavami; Lisa Cacciatore
Subject: RE: RE[2]: Boeing STA 0519-EX-ST-2005

Additional info on the satellite to be used. << Message: File No. 0519-EX-STA-2005 >>

Howard - If you're confused, then I'm totally lost. That's why I need you guys to make sure Boeing isn't trying to pull a fast one and get me called in on the carpet.

I believe their intent is to try to simulate an ESV to collect data.

So is the consensus answer, Yes to the 3 month STA but add the notification condition?

Thanks for the help.

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

From: EXT-Nalda, Carlos M [<mailto:Carlos.M.Nalda@boeing.com>]
Sent: Wednesday, August 31, 2005 12:48 PM
To: Anthony Serafini
Cc: Nalda, Carlos; EXT-Nalda, Carlos M
Subject: File No. 0519-EX-STA-2005

Tony,

In the brief description of the ESV antenna testing STA request, the specific satellite point of communication was inadvertently omitted. For testing, the fixed ESV antennas will communicate with the Estrella do Sul (EDS) satellite at 63W, a Ku-band satellite on the Permitted Space Station List (and thus part of Ku ALSAT). The azimuth and elevation angles included in the technical information reflect communication from Boeing's Kent, Washington facility to the EDS satellite. Please let me know if there is anything additional I should do to associate this information with File No. 0519-EX-ST-2005.

Thank you very much for your assistance.

Best regards,

Carlos Nalda

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

From: Howard Griboff
Sent: Wednesday, August 31, 2005 12:43 PM
To: Paul Locke; Anthony Serafini; Shahnaz Ghavami; Lisa Cacciatore
Subject: RE[2]: Boeing STA 0519-EX-ST-2005

Tony, we required similar notifications from Boeing in earlier experimental grants for Humvee tests (see attached).
<< File: Humvee Exp STA grant.pdf >>

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

From: Paul Locke
Sent: Wednesday, August 31, 2005 12:38 PM

To: Paul Locke; Howard Griboff; Anthony Serafini; Shahnaz Ghavami; Lisa Cacciatore
Subject: RE: Boeing STA 0519-EX-ST-2005

Additionally, this seems to be a test of both the antenna and the antenna stabilization system. If the stabilization system fails the test there could be interference to adjacent satellites. It might be a good idea for them to notify adjacent the satellite operators when the test are being done, what transponders are being used and who the Boeing point of contact is, so that, if interference occurs, the other operators can quickly identify it, notify Boeing and shut down the interference.
Paul

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

From: Paul Locke
Sent: Wednesday, August 31, 2005 12:15 PM
To: Howard Griboff; Anthony Serafini; Shahnaz Ghavami; Lisa Cacciatore
Subject: RE: Boeing STA 0519-EX-ST-2005

Adding Lisa

Also, they make the comment that because the antennas are stationary "Given that the antennas will operate at a fixed location, however, their interference potential is substantially less than that of Boeings previously authorized experimental AMSS and land mobile operations." The antennas are apparently on a 3-axis movable platform which will be used to simulate the ship motion. I don't see this as potential reduction in interference potential, especially, if they are testing the antenna tracking system. But, I do agree with Howard that this really an application for a land based, stationary antenna test and should be granted on that basis. It is not an ESV.
Paul

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

From: Howard Griboff
Sent: Wednesday, August 31, 2005 12:01 PM
To: Anthony Serafini; Shahnaz Ghavami
Cc: Paul Locke
Subject: RE: Boeing STA 0519-EX-ST-2005

Tony, I am a bit confused (understatement of the day!). "The antennas will remain stationary at the SIF facility and operate as fixed stations (rather than on vessels at sea)"? Then it's not an ESV and shouldn't be authorized as one. Rather, should you grant this application, the test should be authorized as a plain vanilla FSS operation (if that's possible based on the technical specs provided) and our ESV requirements wouldn't apply.

As an aside, it looks to me like they're trying to use a fixed station to test their theories on why our ESV rules (for which they have sought recon) are wrong. This they cannot do. Any info they get from a fixed station has no bearing on how the ESV performs on vessels at sea. I'm very skeptical of what's going on here. Please keep us posted on where this goes ... thanks!

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

From: Anthony Serafini
Sent: Wednesday, August 31, 2005 10:17 AM
To: Shahnaz Ghavami
Cc: Howard Griboff; Paul Locke
Subject: Boeing STA 0519-EX-ST-2005

Shana

Boeing has some applications related to their ESV terminals. Howard and Paul had responded with questions and comments to those applications. Boeings want a 3 month STA to try and answer their questions. Testing is only at Boeing's Washington test facility.

Thanks

Tony

<< File: 0519-EX-ST-2005-Boeing.rtf >> << File: 72511.PDF >> << Message: RE: Boeing ESV experiment applications >> << Message: RE: Boeing STA 0401st2005 and License 0200PL2005 >>

From: EXT-Nalda, Carlos M [Carlos.M.Nalda@boeing.com]
Sent: Sunday, August 28, 2005 8:04 PM
To: Anthony Serafini
Cc: EXT-Nalda, Carlos M; Nalda, Carlos @ Mintz
Subject: RE: Boeing ESV experiment applications

Tony,

We are working these issues and will get back to you shortly. In addition, we are preparing the other experimental filings we

discussed earlier.
Best, Carlos

From: Anthony Serafini [<mailto:Anthony.Serafini@fcc.gov>]
Sent: Thursday, August 18, 2005 3:15 PM
To: EXT-Nalda, Carlos M
Subject: Boeing ESV experiment applications

Carlos

This is regarding the current Boeing applications 0289-EX-PL-2004, 0401-EX-ST-2005 and 0200-EX-PI-2005. I believe these are all related and maybe we can address them as one and handle them together under 0200pl05, if that seems reasonable. Please correct me if I'm wrong. Does 0200pl05 handle all the requirements of the other two applications?

Here are some issues and questions I received back from our International Bureau. Their review and comments are based on the recent rulemaking. Any license will be conditioned and granted with regard to the rules adopted.

Please address the following:

- (1) Boeing does not indicate whether these tests are going to occur on U.S.-flagged ships. If not, we cannot authorize use of these antennas. 47 U.S.C. § 306. Rather, Boeing would need to seek authority to operate the ESV network through its U.S.-based hubs, with an indication that the ESVs operating through those hubs will comply with the ESV rules.
- (2) The discussion of ESV Antenna Pointing Control does not indicate whether the ESV complies with the pointing error rule, § 25.222(a)(6)-(7) (i.e., a pointing error of less than 0.2° between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna; all emissions from the ESV shall automatically cease within 100 milliseconds if the angle between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5° and transmission will not resume until such angle is less than 0.2°).
- (3) The section on Protection of Other Authorized Services divides proposed off-axis eirp limit compliance between "when using satellites that have been coordinated for 2-degree spacing and/or to which the Commission's 2-degree spacing rules apply" and "when using satellite that have been coordinated for larger orbital spacings and/or where the Commission's 2-degree spacing rules do not apply." License will be conditioned so that it authorizes use of only the 2-degree spacing off-axis eirp limits.
- (4) Boeing acknowledges the need to coordinate with NTIA/IRAC to protect RAS and SRS. Any license should include conditions based on § 25.222(d) and (e).
- (5) Boeing needs to supply a point of contact in the U.S. (phone number, address) available 24/7, with authority and ability to cease all emissions from the ESVs. § 25.222(a)(8).
- (6) Boeing should maintain a record of the ship's location and be ready to share this information. See 25.222(c)(1)

Tony Serafini