Behnam Ghaffari

From: Hunter, Daryl [daryl.hunter@viasat.com]
Sent: Friday, February 16, 2007 1:52 PM
To: Behnam Ghaffari
Subject: RE: additional info for file No. 0090-EX-ST-2007 and 0048-EX-PL-2007
Follow Up Flag: Follow up
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Attachments: 961641_1.pdf; A2C2S Memo.pdf

Hi Ben,

It was a pleasure to hear from you today.

I am responding with the information you requested:

a) Antenna mfr and model data for those used on the helicopters
b) The satellites to be used for the testing
c) Why we desire both the STA and an experimental license
d) Amending the term of the requested experimental license from 60 months to 24 months

a) The antenna to be used for testing with the Army Helicopters is a L3-Datron FS-4180-LT.

This is a high performance motion stabilized 45 cm antenna that will keep the antenna pointed at the satellite during typical flight maneuvers. In the event that the antenna can not continue to point the the satellite during a maneuver - for example, if the required pointing angle exceeds the mechanical lower or upper elevation limit - then the RF output of the antenna is turned off until the antenna points back to the satellite.

All other antennas that will be used on any moving platform as part of the experimental program are also stabilized and/or tracking and designed to accommodate the typical motion encountered.

A partial list of antenna types includes:

Vendor	PN	Size	Typical Pointing Accuracy
ViaSat, Inc.	1000009	29.21 cm	0.2 deg
ViaSat, Inc.	1047181	29.21 cm	0.2 deg
TracStar	106440	60 cm	0.3 deg
KVH	T66	60 cm	0.4 deg

Additionally, the ArcLight waveform to be used with the antennas is direct sequence spread spectrum and reduces the power spectral density by spreading the energy over a wide bandwidth - typically 36 MHz. The resulting antenna input power densities then are typically less than -30 dBW/4 kHz.

b) The satellite to be used for the helicopter test is AMC-6 at 72 deg West longitude.

As part of the experimental program, we will also test a feature that performs automated satellite handover when a mobile platform transitions from one area of coverage to another. The satellite to be used to support this testing is New Skys Satellite NSS-7 at 22 deg West longitude. Thus approval for both AMC-6 and NSS-7 are desired.

c) ViaSat has an immediate need to transmit to support testing of two Army helicopters which will be deployed overseas shortly in support of Operation Iraqi Freedom/Operation Enduring Freedom. Please see the attached request for expedited processing and a letter from LTC Carter of A2C2S highlighting the need for expedited processing.

In addition to the STA, ViaSat has submitted a request for an experimental license to replace experimental license

WD2XAQ which expired 1/1/2007 due to an administrative oversight and the failure to file a timely renewal application. The requested license parameters for the new experimental application and the STA are essentially the same as those of the now expired WD2XAQ license. ViaSat will have an ongoing need for the experimental license once the testing of the helicopters has concluded and therefore will must keep that application active. The STA alone will be insufficient to maintain operations of the ArcLight experimental facility on a long term basis. Therefore, both an STA and a longer-term experimental license are warranted.

ViaSat requests the STA in order to support the urgent need for testing of the Army helicopters, but if the processing of the experimental license grant itself were done in time to allow testing of the helicopters, then the experimental license itself would be sufficient, and the STA application could be withdrawn. Please note, however, that the Army helicopter testing is imminent, and authority for the testing, either through an STA or the long-term license, is necessary as early as next week.

d) Please amend the experimental application to reflect a change in the requested term from 60 months to 24 months.

Please do not hesitate to contact me for further info or clarification on any of the above.

Thanks and regards,

Daryl

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