Jose Trevino

From: Karl Kensinger
Sent: Friday, April 13, 2012 4:21 PM
To: Jose Trevino
Cc: Walter Johnston
Subject: FW: SpaceX resposne to FCC requests, re: STA File No. 0526-EX-ST-2011
Attachments: SpaceX Letter to FCC (03 April 2012).pdf; ISB Letter to SpaceX (02 April 2012).pdf

Please include Mr. Den Herder's email and the attachments in File No. 0526-EX-ST-2011.

From: David J. Den Herder [mailto:David.DenHerder@spacex.com]
Sent: Tuesday, April 03, 2012 4:41 PM
To: Karl Kensinger; Walter Johnston
Cc: Tim Hughes
Subject: SpaceX resposne to FCC requests, re: STA File No. 0526-EX-ST-2011

Dear Karl and Walter,
Following up on our telecon of last Friday, attached please find a letter from SpaceX responding to FCC requests.
Also attached (as an exhibit) is a letter from our launch insurance broker, International Space Brokers.
If you have any questions, please don't hesitate to contact me directly.
Thanks, and kind regards,
David

**David J. Den Herder | ** Senior Counsel
Space Exploration Technologies Corp.
SpaceX Washington DC Operations
1030 15th Street, NW, Suite 220 E
Washington, DC 20005

+1.202.649.2705 voice
+1.202.649.2701 fax

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SPACEX

April 3, 2012

By Electronic Mail

Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554
Attn: Karl Kensinger, Satellite Division, International Bureau
Walter Johnston, Office of Engineering and Technology

SUBJECT: STA File No. 0526-EX-ST-2011 – telemetry and video transmissions for Falcon 9 launch vehicle – FCC request for additional information – **SpaceX response**

Dear Mr. Kensinger and Mr. Johnston:

Thank you for your continued attention to STA File No. 0526-EX-ST-2011 regarding telemetry and video licensing for the upcoming mission of the Falcon 9 launch vehicle and Dragon spacecraft. As we have discussed, this launch currently is scheduled April 30, 2012 on a mission to demonstrate cargo carriage capability to the International Space Station as part of NASA's Commercial Orbital Transportation Services (COTS) program.

Based on our March 30th teleconference, we understand that our license application is complete pending three additional elements that you described during our call: (i) confirmation from the Federal Aviation Administration (FAA) that its licensing decision to authorize the launch will take into consideration our orbital debris mitigation plans for the launch vehicle upper stage, including estimated risk of liability associated with random atmospheric reentry of the second stage; (ii) a summary from SpaceX of upper stage random reentry analysis and casualty risk assessment results, including a synopsis of inputs and methodologies, in a format suitable for public release; and (iii) for informational purposes, additional inputs from SpaceX regarding third party launch liability (TPL) insurance relating to the second stage. We understand that FCC action on the telemetry and video license request is otherwise complete.

Regarding third party launch liability insurance relating to the launch vehicle second stage, SpaceX has purchased launch insurance in the amount, duration, and nature required by the FAA regulations for our upcoming mission. Specifically, SpaceX's TPL insurance policy responds to third-party loss arising from any reentry of the launch vehicle, including its upper stage, for the duration of forty-five (45) days following launch. After forty-five (45) days, SpaceX self-insures against third-party losses, as is customary and accepted in the industry. As noted in my previous letter, SpaceX has submitted reentry risk analyses and information on SpaceX's debris mitigation plans to the FAA and the FAA has certified that these are under review.

1030 15th Street NW Suite 220 E Washington DC 20005
phone 202.649.2700 fax 202.649.2701
spacex.com

As the FCC acknowledged, in its Second Report and Order, Released June 21, 2004, In the Matter of Orbital Debris Mitigation, IB Docket No. 02-54, FCC 04-130 (the "Second Report and Order"), at Paragraph 105:

> [...] the Department of Transportation, through a delegation of authority to the Federal Aviation Administration, has already adopted detailed launch safety requirements that include measures to mitigate orbital debris and regulations requiring launch liability insurance. The Commission has not required applicants for FCC space station licenses to submit information regarding debris mitigation plans for the launch vehicle that will be used to launch the space station, nor have we reviewed this information even if it is submitted.

In addition, Paragraph 108 of the Second Report and Order notes that "[t]o the extent that the debris mitigation disclosure certifies that the debris mitigation plans of the launch vehicle upper stage have been, or will be, reviewed by the FAA, no further FCC examination of the debris mitigation plans of the upper stage will be required."

Regarding your inquiry about extending TPL coverage to two or more years given the potential of the second stage to reenter during that timeframe, SpaceX has been informed by International Space Brokers (an affiliate of Aon and one of three major launch insurance brokers worldwide) that such coverage is non-standard and highly unusual relative to standard commercial launch services insurance offerings. The two-year timeframe would greatly exceed the period of time typically covered by commercially available insurance policies, and our brokers are not aware of any similar insurance coverage being offered to any U.S. Commercial Launch Vehicle providers. Further, they do not believe that coverage of such duration would be available in the commercial launch insurance market due to possible reinsurance restrictions. ISB has confirmed this with the TPL market's leading insurer. Please see the attached letter from International Space Brokers.

As acknowledged in the Second Report and Order, there is the potential for scenarios in which "the period for insurance coverage against damage caused by orbital debris may exceed the period of time typically covered by commercially available insurance policies." Such risks, the FCC concludes in Paragraph 112 of the Second Report and Order, "are not ones that may be addressed through insurance requirements."

We are hopeful that this letter and its attachment address your concerns. Please contact me or David Den Herder directly with any follow-up that may be necessary. Per your request, David will be sending you a summary from SpaceX of upper stage random reentry analyses and casualty risk assessment results, including a synopsis of inputs and methodologies, in a format suitable for public release. Again, we greatly appreciate your time and attention, and we look forward to your expedited resolution of this matter.

Best regards,

Tim Hughes
Senior Vice President and General Counsel

Attachment

Space Exploration Technologies Corp.
1030 15th Street NW
Suite 450 West
Washington, DC 20005

April 2, 2012

To Space Exploration Technologies Corp:

Following up on your inquiries regarding the extension of Third Party Liability coverage beyond the current insured timeframes to ensure coverage of second stage reentry for up to two years in duration, we offer the following response. To begin, in our experience as international brokers of launch insurances, we have observed that duration of coverage and other key terms in commercially available launch insurance policies adhere closely to the insurance requirements set forth by the FAA in 14 CFR Part 440. As such, extending Third Party Liability coverage for up to two years would be atypical and highly unusual relative to standard commercial launch services insurance offerings. In fact, such a timeframe would greatly exceed the period of time typically covered by commercially available insurance policies, and we are not aware of any similar insurance coverage being offered to any U.S. Commercial Launch Vehicle providers. Further, we do not believe that coverage of such a duration would be available in the commercial launch insurance market due to possible reinsurance restrictions. After discussing this position with the Third Party Liability market's leading Insurer, they have confirmed our understanding of the situation. Finally, even if coverage were available for up to two years it would not be via a standard commercial launch third party liability insurance and, as such, is highly likely it would be cost-prohibitive.

Yours truly,

Jeff Poliseno
CEO, International Space Brokers