

Raytheon Missile Systems
Experimental STA Application
File No: 0790-EX-ST-2012

Supplemental Exhibit to STA Application

Raytheon Missile Systems (Raytheon) hereby supplements its experimental license application 0790-EX-ST-2012 by submitting the following additional information:

Additional information regarding importance of technology development to US Department of Defense:

Federal budget cuts, at a time of high federal budget deficits, have led to budget cuts in numerous federal departments. The Department of Defense is facing budget cuts of nearly \$490 M over the course of the next ten years, according to press interviews given by the Secretary of Defense the week of January 30, 2012. As a result, the Department of Defense is trying to do more with less. Part of the DOD strategy, going forward, is to rely on the use of advanced technologies that can help deliver performance, without significantly adding to manpower. One reason that technology can assist in achieving cost-effectiveness is that higher manpower counts require larger medical staff, administration, personnel, management, and numerous other support functions all of which combine to increase the DOD budget. UASs do not require the same sort of support. So, DOD has made a determination to use more UASs in pursuit of its missions going forward.

The systems under development by Raytheon will help address DOD's need for advanced UASs. These new UASs are focused on increasing surveillance capacity, improving the reliability of communications systems, and the throughput of those communications systems, to ensure that data captured by the UAS is transmitted rapidly and completely to the DOD personnel who need the information. Raytheon's testing and development of this technology is directly in line with the reshaped DOD mission to include more advanced technology.

The proposed demonstration, of very brief duration, is intended to expedite the development of a new UAS, but exploring use of a novel air frame that could be used more effectively in the field. The program is interested in exploring whether such a platform could be the basis for incorporating additional still and video cameras, as well as new communications systems that allow the transfer of the video and still imagery in seconds. Raytheon's program is developing new capabilities to incorporate into UASs to provide up-to-the minute information for the UAS controller to use in real-time, to address an unfolding situation. This is more than just static surveillance; it is like having a live scouting report. The technologies included on the UAS require significant testing and development to ensure their reliable operation in the field. If the demonstration shows viability of the airframe, then it could be the basis for incorporating all of the

technologies listed above as well as Raytheon's ordinance, making the new UAS more effective than ever.

For that reason, Raytheon is seeking an STA, including the proposed additional command and control channels, to ensure that the UASs it is developing will deliver excellent performance, to meet the needs of DOD and other federal agencies faced with the same challenges.

Frequency Coordination:

Raytheon has undertaken coordination with the DOD with respect to the use of these channels.

Additional Information:

Should there be any additional questions regarding this application or proposed radio use, please direct them to Thomas J. Fagan, Raytheon Missile Systems, Spectrum Manager, 520-794-0227 or tjfagan@raytheon.com or to Anne Linton Cortez, WFS, 520-360-0925 or alc@conspecinternational.com.