



communications

BAI Aerosystems

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SUBJECT: Request to FCC for Experimental License

REFERENCE: FORM 442 File Number - 0108-EX-PL-2009

To whom it may concern:

L-3 BAI Aerosystems (L3 BAI) is a manufacturer of Unmanned Aircraft Systems (UAS). UAS are reliant on radio frequency (RF) communications between Ground Control Stations (GCS) and Unmanned Aircraft (UA) for system operation. L3 BAI manufactures several UAS, including the Viking 100 UAS. This system uses 3 bands for RF communications. The non licensed 902-928 MHz band is used for two way spread spectrum modem communications. Two federal bands reserved for government exclusive use are also implemented. Data communications are transmitted from the control station using spread spectrum modem communications between 1350 and 1390 MHz. Telemetry and analog video transmission are downlinked from the aircraft within 1755 to 1850 MHz.

The subject request is a follow-on to a Special Temporary Authorization (STA), FILE: 0470-EX-ST-2008, effective 21 October 2008, expiring 2 April 2009. L3 BAI was seeking approval for a Special Air Worthiness Certificate, Experimental Category from the Federal Aviation Administration (FAA) for the Viking 100 UAS to authorize civilian flight operations within the National Airspace (NAS) in Ridgely, MD. On 18 February, 2009, Viking 100 received a Special Airworthiness Certificate for operations at Ridgely. L-3 BAI would like to continue testing of Viking 100 at Ridgely for a period of 2 years.

NARRATIVE IN RESPONSE TO QUESTION 7:

If all the answers to Items 4, 5, 6 are "NO", include as an exhibit a narrative statement describing in detail the following items:

Question:

a. The complete program of research and experimentation proposed including description of equipment and theory of operation.

Answer:

Although this activity is not directly connected with a US Government contract, the flight testing effort is to support research and development of products sold to the US Department of Defense. The effort at Ridgely will include product demonstrations, crew training and flight testing. This research will benefit the US DoD by allowing us to provide more developed products and services.



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Question:

b. The specific objectives sought to be accomplished.

Answer:

-Crew Training

-Flight Demonstrations

-Product Development

Question:

c. How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated.

Answer:

This effort will provide improved products utilizing RF technologies for the US Department of Defense.