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FROM: Russ Herrell, General Atomics Aeronautical Systems, Incorporated
To: FCC OET Office
Subject: Explanation of Need for Due Regard Radar

General Atomics Aeronautical Systems, Incorporated (GA-ASI) has partnered with NASA and the FAA to conduct a demonstration flight in the national airspace with demonstrates the commercial applicability and utility of unmanned aerial systems (UAS). This program, coined Systems Integration and Operationalization (SIO), involves design, development, integration, and testing, of hardware and software for both an autonomous detect and avoid system and a new command and control data link based on command non-payload communication (CNPC) C-band radio prototypes being developed by the aeronautical industry for use on unmanned systems.

This partnership with NASA is expected to last for approximately two years, with the demonstration flight occurring in March 2020. A crucial part of the detect-and-avoid system is GA-ASI's due regard radar, which detects other airborne traffic so that the unmanned air vehicle can evaluate potential airborne traffic hazards. This license application is so that GA-ASI can operate its due regard radar in the national airspace in order to avoid other airborne traffic.