

PUBLIC INTEREST STATEMENT

1. Introduction

By the instant application (“Application”), Science Applications International Corporation (SAIC) requests that the Commission grant a two year experimental license to operate the facilities (the “Facilities”) specified in the Application.

2. Purpose and Scope of Operation

SAIC is a leading provider of scientific, engineering, systems integration and technical services and solutions. SAIC’s Surveillance and Reconnaissance Business Unit provides maritime intelligence, surveillance, and reconnaissance (ISR) as well as airborne reconnaissance, with an emphasis on mission capability integration and services and products for the military space domain. Working in high-risk environments, SRBU employees leverage full spectrum phenomenology, including sensors and signature detection, to deliver superior technology-driven, mission-responsive ISR collection and associated processing, exploitation, and dissemination solutions to support our nation's security in the space, air, land, and maritime domains. The testing for which authority is sought in the instant Application is a critical part of the manufacture and delivery of systems designed to support the Warfighter in ISR activities.

The instant Application seeks authority to continue operations previously authorized under File No. 0735-EX-ST-2011. Initial testing under the STA established the feasibility of SAIC’s approach. The success of the tests under the STA have led to sufficient interest among SAIC’s customers to warrant continued tests and demonstrations of the system under varied conditions more closely aligned with the customers’ needs. The specific purpose of the system for which authority is requested is described at Exhibit 3, which is subject to SAIC’s “Confidentiality Request” attached to the Application at Exhibit 2. As a general matter, the instant Application seeks Commission authority to operate the specified Facilities within a 100 km radius of the specified centerpoint.

3. Other Technical Information

Single Aperture: CW transmit power is 0.50 Watts
Attenuators are available and can reduce power to under 0.1 Watts
Gain is 14.8 dBi at 8.4 GHz, 17 dBi at 10.44 GHz
Beamwidth of transmitting standard gain horn antennas is 31° at 8.4 GHz and 27° at 10.44 GHz for Horizontal, 33° at 8.4 GHz and 29° at 10.44 GHz for Vertical

4. Interference Mitigation

Operation of the requested Facilities will not be continuous. Rather, authority for only limited and sporadic operation of the Facilities is requested during the authorized timeframe, i.e., at any given authorized location, the cumulative period of operation in any given 24 hour period will be no more than 8 hours. In the off state, no measurable power will be radiated. In addition, only one unit will be operated at any given time at any of the specified locations in the Application.

The transmit antenna has a wide beamwidth but will be fixed in pointing direction rather than rotating during transmission.

SAIC understands that FAA (or other stakeholders) may require certain limited azimuth and/or elevation blanking in order to ensure that the proposed Facilities do not pose a threat of interference to adjacent emitters. Accordingly, this is to confirm that the subject radar system and polarimetric active radar calibrator (PARC) have such blanking capabilities and that SAIC stands ready to work with FAA to identify any reasonably necessary azimuth and/or elevation restrictions for the system.

Authority is requested for only limited and sporadic operation of the Facilities during the authorized timeframe. The majority of operations of the Facilities will be conducted inside the laboratory. When out doors, the operation will be sporadic, not continuous. In fact, there may be extended periods of non-operation during the authorized period, while other non-RF transmission aspects of the experiment are conducted.

Based on the location of the experiment, the technical parameters of the operation, and the manner in which the experiment will be conducted, interference to any co-channel or adjacent channel operations (including for example radio astronomy) is mitigated.

5. Discussion re: Power

The ERP indicated in the application is on the order of 10s of Watts, however the maximum power into transmit antenna is under 1 Watt and will typically be attenuated to 100s of mW given the required link budgets to complete our experiments. The ERP is the Equivalent or Effective Radiated Power.

6. Prevention of Interference

SAIC hereby advises the Commission that SAIC's Timothy M. Bielawa or L. Cole Howard will personally monitor the experiments for which authority is requested, and will act as a "stop buzzer" if any issues regarding interference arise during testing. Mr. Howard can be reached on his cell phone at 703-593-9402 and Mr. Bielawa at 571-245-3534.