Rockwell Collins, Inc.
Form 442
Exhibit 1

DESCRIPTION OF EXPERIMENT

Rockwell Collins, Inc. ("Rockwell Collins") respectfully requests a new experimental license to enable it to conduct developmental testing of experimental radio prototypes for potential operational use by the United States Marine Corps. Rockwell Collins is the leading supplier to the United States Military of airborne and ground communications systems. The Marine Corps has asked Rockwell Collins to conduct a demonstration of these prototypes at Camp Pendleton in San Diego, California, from March 15 to March 28, 2018, with further demonstrations to occur over the next 24 months as requested by the Marine Corps.

The experimental equipment to be used in the testing was developed by Rockwell Collins in response to operational needs identified by the Marine Corps. Portable radios, cellular networks, and Wi-Fi equipment are not meeting the Marine Corps' communications demands. High electromagnetic interference is producing congestion in urban environments, and existing devices do not provide sufficient range in remote environments.

Rockwell Collins seeks to address these issues through new versions of low-power and small-form factor systems that may be used to move specialized data traffic using less power and more compact antennas. The radios provide real-time point-to-point and automatic relaying of message and position information between devices. The communications system will be capable of operating in contested environments by implementing an A/J waveform, and will be interoperable with BE-CDL protocol to provide users with Full Motion Video.

The testing will be conducted as part of a the Advanced Naval Technology Exercises, a series of exercises led by the Naval Research and Development Establishment, wherein emerging technologies and engineering innovations are tested in operationally relevant scenarios. Rockwell Collins's radios will be tested to determine whether they meet the operational needs, and possibly the sustainment and logistics needs, of Marines in complex environments. The purpose includes improvements to Marines' survivability and connectivity. Specifically, the experiments will test the ability of these radios to enable situational awareness, command and control, and full motion video in a simulation of a challenging operational environment that might be found in a war zone in Iraq or Afghanistan. The experimentation program thereby contributes to the development and expansion of radio communications, particularly as used in Marine Corps operations.

The stop buzzer contact for this license is William Croghan, 319-651-7769, william.croghan@rockwellcollins.com**.**