

EXPLANATION OF EXPERIMENTATION

Rockwell Collins, Inc. (Rockwell Collins) seeks modification and renewal of its experimental license (Call Sign WE2XGE) granted May 1, 2015. The modification seeks to slightly alter the parameters of WE2XGE. Specifically, Rockwell Collins seeks to modify the original emission designator to accommodate a wider signal bandwidth and to add a second emission designator to transmit pseudolite signals:

- 24M0D0N
- 20M46G1DXC

Rockwell Collins is responsible for design, development, and production of GPS related equipment for military applications. The experimental license requests the inclusion of two different emission designators to support current military GPS equipment development.

Emission designator 24M0D0N supports development of anti-jam and receiver equipment for military applications. Applications include handheld, ground mobile, weapon, and airborne guidance sensor electronics. These sensor packages are critical to proper function of end-user systems, and testing of anti-jam capabilities in a live-sky environment is critical to the success of these programs.

Emission designator 20M46G1DXC supports Pseudolite (PL) development. PLs are terrestrially based devices that transmit signals similar to GPS Space Vehicles (SV). The transmitted signals can be acquired and tracked by appropriately configured GPS receivers to provide a higher level of Assured Positioning, Navigation and Timing (A-PNT). The Army Program Management Positioning, Navigation and Timing (PM-PNT) has identified a need for A-PNT that will provide Army forces the ability to obtain and trust PNT information while operating in conditions that impede or deny access to GPS signals. The ability to test PL performance in a live-sky environment is critical to the success of the program.

Rockwell Collins has prior coordinated with FAA. The FAA coordination number for the modification/renewal is **NG T170208**.