

Background and Response to Question 7 on FCC Form 442

Background. Curtiss-Wright Controls Inc. (CW) seeks this license to conduct demonstrations of next generation versions of its ultra-wideband ground penetrating radar (GPR) device known as 3d-Radar for prospective non-federal customers as it awaits FCC grant of its pending Petition for Reconsideration of a Waiver Order (ET Docket. 10-167) which was filed in February 2012 (Petition). These next generation devices operate in frequency steps of 10 MHz or 20 MHz, and dwell times of either 1 microsecond or 2 microseconds. Although some variations of the device might go through the 140 MHz – 3 GHz band solely in sequential 10 MHz or 20 MHz steps, other variations of the device will go through the band in sequenced 10 MHz or 20 MHz steps that are shifted 1 MHz or 2 MHz for subsequent scans.

By way of background, CW filed a Part 15 waiver request with the FCC in June 2010 seeking authorization to operate its 3d-Radar GPR device for non-federal use. In January 2012, the FCC issued an order (Waiver Order) granting CW's Part 15 waiver request to operate a prior version of the 3d-Radar device (which operates in 2 MHz steps) for non-federal use (subject to obtaining appropriate equipment authorization). In its Petition (and a supplemental filing submitted on January 8, 2013), CW asked the FCC to modify the Waiver Order so that the conditions set forth in the Waiver Order do not prohibit natural advancements in the 3d-Radar technology which do not adversely affect other licensed spectrum users. We understand that the FCC Office of Engineering and Technology is assessing the Petition and supplemental filing. We note that CW previously obtained Special Temporary Authority (STA) (call sign WG9XBZ) for the 10 MHz and 20 MHz step devices that are the subject of this application and which is valid through May 29, 2013.

Section 5.61 of the FCC's Rules states: "Extensions of a special temporary authorization will be granted provided that an application for a regular experimental license has been filed at least 15 days prior to the expiration of the licensee's temporary authority. When such an application is timely filed, operations may continue in accordance with the other terms and conditions of the temporary authority pending disposition of the application, unless the applicant is notified otherwise by the Commission." Based on this Rule and input from FCC staff, we understand that CW may continue conducting demonstrations pursuant to its existing STA beyond May 29th once this application has been filed.

Narrative. In response to Question 7 on FCC Form 442, below is a narrative about the proposed use of the device (including a description of the equipment and theory of operation), the objectives to be accomplished, and how such use will contribute to the development, extension, expansion or utilization of the device and its application.

The 3d-Radar GPR device is an ultra-wideband emitter regulated under the Part 15 Rules which is used to survey sub-surface and below ground structures. Under an experimental authorization, activities will be of limited duration for a few hours each day on selected days and at selected locations in the U.S. as determined by (and/or in coordination with) prospective customers. Through demonstrations for (and discussions with) prospective customers, CW will be able to better assess customer needs which, in turn, may impact the development and implementation of certain functional aspects of the device.