

## **EXHIBIT A – REASON FOR SPECIAL TEMPORARY AUTHORITY**

Deere & Company (“Deere”), pursuant to Section 25.120(b)(3) of the Commission’s Rules, 47 C.F.R. § 25.120(b)(3), hereby requests special temporary authority (“STA”) for a period of 60 days to operate receive-only, non-common carrier, mobile earth stations operating in the L-band at center frequency 1545.9675 MHz to downlink transmissions from an Inmarsat geostationary satellite at 98° west longitude (Satellite Identifier: Inmarsat 4F3), in conjunction with downlinks from other Inmarsat geostationary satellites (collectively “Inmarsat Satellites”) already authorized.<sup>1</sup> Deere requests the instant authority to begin no later than March 22, 2016. Specifically, Deere requests STA for its existing network of mobile earth terminals (“METs”) operating under Call Sign E130083 to receive 2.5 kHz space-to-earth emissions (designator 2K50D1D) from the Inmarsat Satellites at the above-referenced center frequency.<sup>2</sup>

Since 2001, Deere has been enabling domestic agricultural equipment with its StarFire precision farming system. The StarFire system employs receive-only vehicle mounted mobile earth stations. These earth stations receive L-band space-to-earth emissions from Inmarsat geostationary satellites that provide correctional data. This data augments the navigational information the StarFire terminals receive simultaneously from Global Positioning System (“GPS”) satellites. This augmented system enables the operators of domestic farming equipment to pinpoint their location to within +/- 2.5 centimeters.<sup>3</sup> This precise positioning capability developed originally to assist farmers in comparing the crop yields from various fields to determine, among other things, the amount of fertilizer and seed appropriate for a particular field and crop, has now found additional important uses to improve farming efficiency, including enabling farmers to manually record observations such as weed patches, crop appearance, and other field variables with remarkable precision. In addition, among other benefits, when coupled to the vehicle steering system through the Deere AutoTrack system it aids the operator to steer a more precise path when making repeated passes over the same track, thus greatly reducing crop and soil damage.

Grant of STA will serve the public interest by ensuring continuity of service for existing Deere StarFire customers during the pendency of Deere’s permanent application to modify Call Sign E130083 to receive the above-referenced frequencies.<sup>4</sup> Pursuant to Section 25.120(b)(3) of the rules, Deere requests a 60-day STA without the need for prior public notice. As discussed

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<sup>1</sup> All involved Inmarsat spacecraft have been approved to serve the United States, and are reflected on the Commission ISAT list.

<sup>2</sup> Deere was previously granted authority to receive space-to-earth emissions from additional Inmarsat Satellites. *See* IBFS File No. SES-LIC-20130422-00340 (granted Feb. 9, 2016). Deere has filed an application to modify Call Sign E130083 to permit Antennas 1, 2, and 3 to operate on center frequency 1545.9675 MHz. *See* IBFS File No. SES-MOD-20160227-00183 (filed Mar. 1, 2016).

<sup>3</sup> Navigational accuracy depends on several variables, including visibility to overhead satellites and other supplemental transmitters providing correctional data.

<sup>4</sup> *See* IBFS File No. SES-MOD-20160227-00183.

Deere & Company  
Receive-Only Mobile Earth Station Application for STA  
Exhibit A

above, grant of authority is requested on or before close of business on March 22, 2016 so that Deere can continue to provide service to customers without any loss of service.