DESCRIPTION OF MODIFICATION

The Tomorrow Companies Inc. ("Tomorrow.io") seeks modification of its experimental license to continue to use a ground-based radar calibration transceiver at its Buzzards Bay, MA location, to support testing and calibration of the radar system of its recently launched satellites Tomorrow-R1[1] and Tomorrow-R2.[2]

Tomorrow.io initially sought and was granted special temporary authority ("STA") to operate the ground-based radar calibration system for one-hundred and eighty (180) days.[3] Tomorrow subsequently sought and was granted a conventional experimental license to operate the ground-based radar calibration system for twenty four (24) months.[4] That application, which is hereby incorporated here by reference, was granted with two important restrictions[5] which this modification seeks to have modified for the reasons set forth below.

First, Tomorrow.io seeks to modify the first sentence of Condition 3 to the license so that it will read: "This authorization is issued for the express purpose of: *(i)* conducting experimental operations described in the related application and required by USAF contract number FA8730-21-0064; *and (ii) allowing Tomorrow.io to conduct its own separate testing of the radar payload in orbit.*" New language (the addition of clause (ii)) is in italics. While the experimental license is used to fulfill a government contract, Tomorrow.io also needs to conduct its own separate testing of the radar payload in orbit. Accordingly, it seeks to remove any condition or limitation on operation to fulfillment of its contract. In this regard, Tomorrow.io seeks operation under both XC (experimental contract) and XT (experimental testing) service codes.

Second, Tomorrow.io seeks to modify Condition 7 of the license to remove the second sentence of the Condition which currently reads: "The transmit antenna elevation angle shall not exceed 20 degrees above the local horizontal plane." This Condition, which denies Tomorrow.io the ability to point the antenna at zenith (straight up), prevents Tomorrow.io from being able to conduct any meaningful experimentation. With respect to this second request, Tomorrow.io has successfully coordinated its proposed operation, showing compliance with the requirement to protect EESS (passive) in 36-37 GHz, with NASA who Tomorrow.io understands had originally requested it.

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[1] FCC Call sign WU9XRY.

[2] FCC Call sign WV9XKQ.

[3] FCC Call sign WV9XUT, OET File No. 0991-EX-ST-2023.

[4] FCC Call sign WO2XHC, OET File No. 1692-EX-CN-2023, granted Dec 7, 2023.

[5] *Id.* See Special Conditions 3 and 7 on the license.

As previously stated, the ground calibrator includes a horn antenna for transmitting and receiving.

- Width of beam in degrees at the half-power point: 30 degrees E-plane x 36 degrees H-plane
- Orientation in horizontal plane (degrees from True North): N/A - when pointing at zenith there is no definable angle relative to true north.
- Orientation in vertical plane (degrees from horizontal): 90 degrees (pointing at zenith is perpendicular to the horizontal plane)

Tomorrow.io is committed to coordination and to collaborative operations of its ground-based calibrator. The calibrator transmissions are for scientific calibration purposes. There are no other associated communications with other ground receiving stations related to this calibration.

Stop Buzzer Point of Contact:
Name: Richard Roy
Number: +1 (650) 269-9370