Exhibit 1: Tomorrow.io Mission Description

Introduction

The Tomorrow Companies, Inc. (herein after "Tomorrow.io") is a weather intelligence and climate security company, founded in 2016, which has since raised $200 million, has more than 1,000 customers, and has built a team of top scientists, engineers, meteorologists, modelers, product developers, and business executives from government, industry, and academia. Tomorrow.io consists of three main business areas:

1) Tomorrow.io Weather, which is a world-class weather forecasting operation that includes precipitation nowcasting; a high-resolution, rapid refresh numerical weather prediction model called Comprehensive Bespoke Atmospheric Model (CBAM); and a proprietary 1 Forecast (1F) platform that uses machine learning to extract the best forecast from a combination of CBAM and publicly available models.
2) Tomorrow.io Weather Intelligence Platform™ which uses weather-related criteria and protocols to turn weather forecasts into decisive actions. The platform scales to virtually any industry and can autonomously track weather impacts across locations.
3) Tomorrow.io Space, which is the internal space program of the company and is developing radar-equipped satellites to measure precipitation and other geophysical parameters globally. Conducting initial experimental tests of Tomorrow.io's Space effort is the focus of this application.

For decades, terrestrial radar systems have provided observational data that are critical to modern weather forecasting. But today, more than 5 billion people still live outside of radar coverage, and as a result lack reliable weather forecasts. Tomorrow.io is developing satellites with precipitation radars to solve this critical sensing gap. These new observations will be assimilated into our weather models, ultimately enabling an unprecedented improvement in weather knowledge and forecasting globally.

Technical Description

Tomorrow.io is developing two demonstration satellites, Tomorrow-R1 and Tomorrow-R2, to test a radar payload on orbit, work through calibration and validation of the instrument, and provide sample data for analysis. The two satellites are identical small ESPA-class satellites, approximately 75 kg in mass, and approximately 50 cm x 50 cm x 100 m in size. The payload is being developed by Tomorrow.io, and the spacecraft bus is being developed by Astro Digital. The spacecraft will have full functionally to cease emission upon command. The satellites are scheduled to launch in October 2022 on a SpaceX Transporter mission with an orbit of 550 km altitude sun synchronous orbit (LTDN 9:30). The LTDN is not critical to the mission, nor is the initial altitude of 550 km, and thus these parameters will be driven by the launch vehicle (rideshare) or in coordination.

The payload is a Ka-band (35.75 GHz) weather radar that will operate between 35.5 and 36.0 GHz in a monostatic configuration. The radar uses volume backscatter to profile precipitation vertically throughout the atmosphere and uses scatterometry to measure parameters of the ocean surface. The radar is pulse-to-pulse reconfigurable on-orbit, and thus can utilize a variety of underlying

sampling techniques and waveforms. The sampling resolution of the radar is approximately 5 km x 5 km horizontally, and 250 m vertically. The radar utilizes a 1.2 m fixed parabolic cassegrain antenna.

Link	Center Frequency	Bandwidth	Polarization	Purpose
TT&C downlink	Within the 400-403 MHz band; nominally 400.5 MHz	40 kHz	Linear	Downlink of spacecraft telemetry data
TT&C uplink	Within the 2025-2100 MHz band	300 kHz	Circular	Uplink of spacecraft telemetry and telecommand data
Payload downlink	Within the 25.5-27 GHz band	450MHz	Circular	High speed downlink from the satellite to downlink payload data
Payload return link	Within the 2025-2100 MHz band	5 MHz	Circular	Return link for the high-speed downlink, proving an uplink for acknowledgement and adaptive coding for the downlink
Radar	Within the 35.5-36 GHz band	Up to 500 MHz	Linear	Scientific payload; measures precipitation and ocean surface parameters

Table 1. RF links for Tomorrow R-1 and Tomorrow R2.

The spacecraft bus is a three-axis controlled small satellite to support the radar mission. The power system uses body-fixed solar panels. There are four RF links for spacecraft communication. These links, in addition to the radar, are summarized in Table 1.

The Tomorrow.io radar is compliant with guidance in the NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management, September 2017 Revision, section 5.5, Radar Spectrum Engineering Criteria. In particular, the radar meets the spectrum emission mask requirements defined in section 5.5.4 and 5.5.7 including the spurius domain limits and harmonic levels.

Tomorrow.io submitted its initial contact form request to NOAA CRSRA and will be subject to a remote sensing license. Tomorrow.io is in the process of obtaining a license.