

Science and Technology Corporation is partnering with several companies for a design study of instrument concepts and a potential for a cubesat “swarm” constellation to provide weather data for National Oceanic and Atmospheric Administration (NOAA).

NOAA awarded a series of contracts to investigate potential instruments, spacecraft, business models and mission concepts for the space-based architecture to succeed the Joint Polar Satellite System and Geostationary Operational Environmental Satellite R series. These opportunities are part of six-month studies to analyze a Common LEO Architecture for Weather as well as using STC’s expertise in Infrared Sounding to support LEO Sounder Sat studies. We intend to meet NOAA requirements for gathering weather observations in both low Earth and geostationary orbit with sensors on cubesats in low Earth orbit. The study will tell us what the configuration would look like to meet the government requirements including latency, refresh, spatial and spectral resolution.

STC will support the design of Imager and sounder concepts, as well as evaluate infrared, microwave and radio occultation instruments currently on the market or being developed for cube-sat spacecraft science missions. This work includes performing many instrument trades to determine the cost-benefit of the technical performance.

