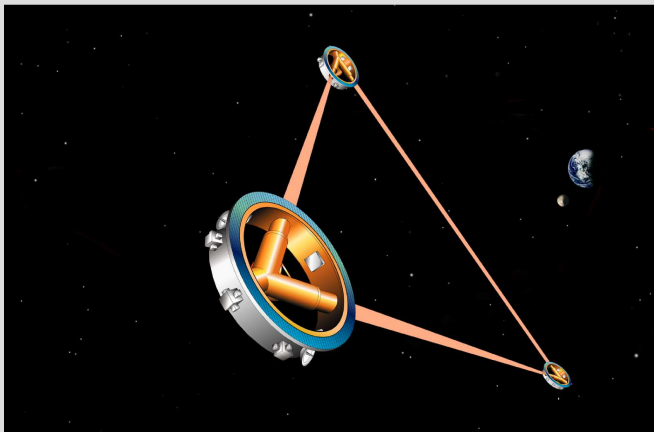


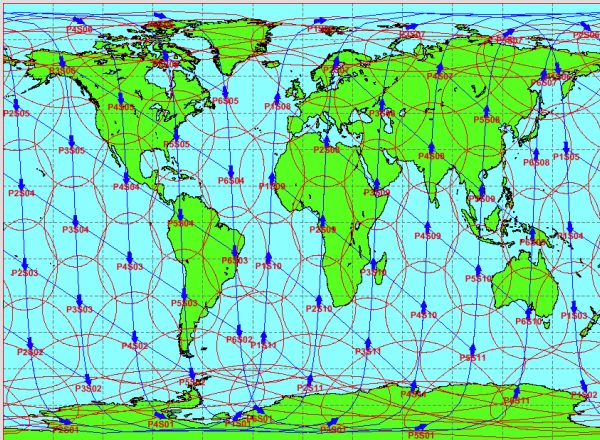


Formation Flying, Proximity Ops and Autonomy



Overview

Emergent Space Technologies, Inc. is leading the development of technologies to enable collaborative multi-spacecraft missions. We integrate fully autonomous, on-board, self-reliant, constellation-level control strategies with formation sensing and control, vehicle health and safety, and science observation and measurements.



Constellation Design and Operations

Emergent employees have gained extensive experience from participation in design and operations of the Iridium, Globalstar and Teledesic constellations. Emergent offers expert consulting and engineering services in the areas of constellation design; deployment, sparing and satellite replacement strategies; collision avoidance, and operations design.

Formation Flying

Emergent has supported NASA Goddard Space Flight Center's Formation Flying Test Bed (FFTB) since its inception. The FFTB is a facility for hardware-in-the-loop simulation and testing of formation flying navigation, guidance and control hardware, software and algorithms. It uses a GPS signal simulator and a crosslink channel simulator to provide actual RF signals to stimulate GPS receivers and communication transceivers with realistic inputs.



Rendezvous and Proximity Ops

Emergent is leveraging its experience in spacecraft formation flying to become a preeminent provider of rendezvous and proximity operations algorithms, simulations and systems engineering.

Autonomous Spacecraft

Emergent employees have played key roles in the design autonomous spacecraft formations such as TechSat 21, an AFRL program to demonstrate the space-based radar capabilities of a three-satellite formation. Emergent relies on this experience to provide advanced autonomy solutions for both space and ground systems.