

PART 7. SENSOR WEB/TESTBED INITIATIVES

7. INTEGRATED INITIATIVES

The ultimate goal of the Sensor Web/Testbed Initiatives activity is to integrate the various elements into a unified, seamless software system. This system would provide the ability to autonomously assemble and control an ad hoc constellation of satellites that would form a “virtual observatory”. For example, the system could contain linked elements such as a science goal monitor, science data analysis algorithms, mission operations planner, momentum management tool, cloud detection and prediction capability, and a failure diagnostic tool. In addition, there would be a ground-based network of a large number of small adaptive antennas that would provide a cost-effective means for interconnecting members of a virtual observatory.

Documentation of efforts to create an above described unified autonomous operations system, using EO-1 as a testbed, can be obtained from the links contained in the Table of Contents for Part 7, Section 7.