

## **Operationally Responsive Space–1** Assured Space Power Focused on Timely Satisfaction of Joint Force Commanders' Needs

ORS-1 is the Operationally Responsive Space Office's first operational prototype satellite. Rapidly developing and fielding ORS-1 is an important step to demonstrate the capability to meet emerging and persistent warfighter needs in operationally relevant timelines. ORS-1 was initiated as a result of a requirement from the Commander of US Strategic Command (USSTRATCOM) to the ORS Office to support US Central Command (USCENTCOM). The ORS Office ensures that ORS-1 meets customer technical and schedule requirements and is the primary interface with USCENTCOM, USSTRATCOM, the Services and OSD staffs. The ORS Office's executing agent for this effort is the Air Force Space and Missile Systems Center's Space Development and Test Directorate (SMC/SD) at Kirtland, Air Force Base, New Mexico.

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RESPONSIVE SPACE

In October 2008, less than three weeks after approval by the DoD Executive Agent for Space, the Air Force SMC/SD awarded a contract to Goodrich Corporation in partnership with Alliant Tech Systems (ATK) to provide the space vehicle. ORS-1 was manufactured and integrated by Goodrich Corporation. ATK provided the spacecraft bus, which was derived from the Air Force Research Laboratory's TacSat-3 satellite. The payload was derived from Goodrich's SYERS-2 airborne sensor. Ground command and control activities will use Air Force Space Command's Multi-Mission Space Operations Center Ground Support Architecture (MMSOC GSA) and will be commanded by the 1st Space Operations Squadron (1 SOPS) from Schriever, Air Force Base, Colorado. The spacecraft team leveraged the MMSOC GSA resulting in minimal development of unique software for the mission. ORS-1 also maximizes use of existing airborne Tasking, Processing, Exploitation, and Dissemination systems which minimized the need for modifications. The Virtual Mission Operations Center, a planning tool for mission planning and tasking activities developed by the Naval Research Laboratory, was modified for scheduling and planning, and existing tools were used for exploitation and dissemination.

ORS-1 is on an aggressive schedule to deliver a battlespace awareness capability to the warfighter. The ORS-1 team has made significant progress to date developing, integrating, and testing the space system in just over two years. ORS-1 will be launched using the proven Orbital Sciences Corporation Minotaur I launch vehicle from the NASA Wallops Flight Facility at the Mid-Atlantic Regional Spaceport in late Spring 2011 with initial operational capability occurring shortly afterwards.