

# Space Operations

# CAPABILITY OVERVIEW

ASRC Federal's Space Operations team provides end-to-end satellite operations for a comprehensive group of federal civilian and defense agencies. Through 24/7 year-round realtime operations, including autonomous "lights out" capabilities, ASRC Federal delivers telemetry, tracking and control (TT&C) for satellites in Low Earth Orbit (LEO), Highly Elliptical Earth Orbit (HEO), and Geosynchronous Earth Orbit (GEO); flight operations; command and control (C2); as well as full lifecycle system/mission engineering across concepts of operation (CONOPS), development, and launch. Whatever the need, ASRC Federal's team of experts can ensure your space mission's success.

# **PROGRAM SPOTLIGHT**

EMOSS Team Supports Mission-critical Control System Redesign and Patches on DSCOVR

The DSCOVR satellite provides critical space weather data used across agencies and in the commercial sector. When the Z-axis laser gyro critical to the guidance navigation and control system began to fail, ASRC Federal's EMOSS team supported the design and development of a control system software patch that allowed DSCOVR's return to normal operations. The team provided inputs for the design, performed critical DeltaV/H operations to maintain the spacecraft in Safe Hold, coordinated antenna scheduling with the Deep Space Network and restored the spacecraft back to a reliable Earth-pointing attitude mode.

## **AREAS OF EXPERIENCE**

#### Satellite Command & Control and Telemetry, Tracking and Control (TT&C)

We perform the full range of satellite command and control including mission scheduling, maneuver planning, routine operations, and anomaly resolution. We also conduct satellite State of Health (SOH) telemetry analysis and trending, working with spacecraft manufacturers to refine limits and develop responses for non-nominal data points while archiving SOH telemetry for use in long term trending studies.

## **Systems Engineering**

Developing, validating and testing system requirements is one of the most critical parts of any program. Our team offers a variety of systems engineering services including requirements, system validation and verification, operations concept definition, system architecture and design, interfaces and interface control documents, software system engineering, field programmable gate array (FPGA) systems engineering, configuration management, risk management and system integration and test support.

#### **System Administration**

System design, support and maintenance, configuration management, and identity and access management are just a few of our skills. With a robust team of system administrators and system engineers, we can ensure your personnel have access to the tools they need to achieve mission success.

## **Network and IT Security Support**

ASRC Federal plans, deploys and supports your network using continuous data monitoring tools. We also design, install, and configure mission networks and serve as the network administrator.

#### **Flight Systems**

Our team designs, fabricates, tests, and integrates payloads to ensure a successful deployment. We operate ground support equipment (GSE), configure and maintain payload test areas and develop the required documentation (test plans, procedures, logs, etc.), software and firmware your program needs.

#### **Data Operations Support**

We ensure the flow of satellite data and imagery products to the National Weather Service (NWS), Earth Satellite Processing Center (ESPC) and direct downlink users located across the globe. We perform advanced monitoring and troubleshooting of products as they are generated for and distributed to customer operations centers.

## **KEY CUSTOMERS**



## CONTACT

## Scott Altman

Operating Group President, Space saltman@asrcfederal.com (301) 837-9034

## asrcfederal.com

## **ABOUT US**

ASRC Federal's family of companies deliver successful mission outcomes and elevated performance for federal civilian, defense and intelligence agencies while building an enduring enterprise focused on customers, employees, and shareholders.

ASRC Federal offers broad and highly technical expertise in digital operations and IT modernization, software, applications and analytics, engineering solutions, professional services, and infrastructure operations.

As a wholly owned subsidiary of Arctic Slope Regional Corporation, an Alaska Native Corporation, we are inspired by the Iñupiat culture. We embrace stewardship and the idea of using every resource effectively; teamwork when striving to achieve goals and building a collaborative environment; integrity in adhering to high moral principles and professional standards; respect in welcoming and regarding the differing opinions, experiences, rights and traditions of others as we build a diverse and inclusive workplace; accountability in that we meet our commitments and take responsibility for our results; and continuous improvement, always striving to make things better, raising the bar and staying humble.

## MARKETS WE SERVE











Space

Defense & Intel

National Security

Health

+ ASRC Federal and our subsidiaries hold a number of credentials including:

- CMMI Level 5 Development (subsidiary);
- CMMI Maturity Level 3 for Services and Development:
- 27001 Certification for Security Management;
- AS9100D / ISO 9001: 2015 Certification for Quality Management;
- AS9100D / ISO 9001:2015 Certification for Quality Management

# HOW TO GET TO US / CONTRACT VEHICLES

- + ASRC Federal represents a variety of socio-economic categories including small business and 8(a). Our companies' portfolio of GSA schedules, GWACS and agency specific contract vehicles enables our customers to procure professional services and technology solutions tailored to their requirements, using a streamlined acquisition approach. Our experienced GWAC Program Management Office (PMO) provides collaborative support and leadership throughout the contract lifecycle.
- + To view our full list of contract vehicles, please visit: www.asrcfederal.com/contract-vehicles



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