

Job Description

Job Title:	ACE Operations Specialist
Department:	Chemistry Department
Reports To:	Chemistry Department Chair / ACE Mission Scientist
Jobs Reporting:	N/A
Salary Grade:	USG 8
Effective Date:	August 2017

Primary Purpose

Launched in August 2003, SCISAT continues to operate successfully to this day. Presently, thirteen years of measurements have been accumulated, and the satellite's operation is anticipated to continue for many more years. Over 500 scientific publications have used data produced by the Atmospheric Chemistry Experiment (ACE) mission.

Under the guidance of the Principal Investigator, the primary purpose of the Operations Specialist is the creation of weekly schedules for the ACE-FTS and MAESTRO instruments on board the SCISAT satellite. The ACE Operations Specialist also maintains and extends the functionality of the mission's website, thereby providing ACE data products to an extensive network of data users, and general mission information to the public. Other duties include the tracking publications that use ACE data, and the monitoring of multiple mission metrics.

Key Accountabilities

<p>Instrument scheduling and monitoring:</p> <ul style="list-style-type: none"> • Create measurement schedule for ACE-FTS and MAESTRO instruments • Track satellite performance metrics • Regular contact with the Canadian Space Agency and with Mission Operations Center • Perform calibration measurements before and after a period of detector decontamination; analysis and reporting of calibration data
<p>Data product management:</p> <ul style="list-style-type: none"> • Manage data user administration, authentication and requests • Track data use metrics • Locate publications that use ACE data • Generation of data packages for special projects
<p>Reporting:</p> <ul style="list-style-type: none"> • Contribute to quarterly mission reports • Present mission metrics and status of projects at semi-annual ACE meeting • Compile annual ACE-FTS diagnostics reports • Fill in for some Project Manager duties when PM is unavailable
<p>Database management:</p> <ul style="list-style-type: none"> • Maintain the integrity of multiple databases, perform backups and repairs • Insert/modify records via command line and scripts • Identification of program documentation from all phases of operations
<p>Website development:</p> <ul style="list-style-type: none"> • Maintain and update website content • Create new web applications

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Required Qualifications

Education <ul style="list-style-type: none">• Bachelor's degree in Computer Science, Physics, Engineering, Math, or Chemistry, or equivalent education and experience required
Experience <ul style="list-style-type: none">• Experience with data management, data analysis, and website management.
Knowledge/Skills/Abilities <ul style="list-style-type: none">• Proficiency with:<ul style="list-style-type: none">○ Linux operating system○ SQL○ Python○ Django○ Microsoft Office Suite (Word, Excel, PowerPoint)• Familiarity with Systems Tool Kit (STK) satellite analysis software is an asset• Ability to communicate complex topics, and collaborate effectively, both in person and remotely• Ability to learn new skills quickly

Nature and Scope

- **Contacts:** This position entails regular communication with other members of the ACE team, satellite operators at the Canadian Space Agency (CSA), and data users located around the world.
- **Level of Responsibility:** This position is one of four at the ACE Science Operations Centre (SOC), in which each member possesses their own unique skill set and experience.
- **Decision-Making Authority:** Limited to the items listed above, where consultation with other team members is required.
- **Physical and Sensory Demands:** Limited to the working environment of a modern office.
- **Working Environment:** A continuously evolving environment of state-of-the-art computing facilities and data delivery services.