The NASA Science Internet (NSI) Network Operations Staff is responsible for providing reliable communication connectivity for the NASA science community. As the NSI user community expands, so does the demand for greater interoperability with users and resources on other networks (e.g., NSFnet, ESnet), both nationally and internationally.

Coupled with the science community's demand for greater access to other resources is the demand for more reliable communication connectivity. Recognizing this, the NASA Science Internet Project Office (NSIPO) expanded its Operations activities. By January 1990, Network Operations was equipped with a telephone hotline, and its staff was expanded to six Network Operations Analysts. These six analysts provide 24-hour-a-day, 7-day-a-week coverage to assist site managers with problem determination and resolution.

The NSI Operations staff monitors network circuits and their associated routers. In most instances, NSI Operations diagnoses and reports problems before users realize a problem exists.

Monitoring of the NSI TCP/IP Network is currently being done with Proteon's Overview monitoring system (see photo). The Overview monitoring system displays a map of the NSI network utilizing various colors to indicate the conditions of the components being monitored. Each node or site is polled via the Simple Network Monitoring Protocol (SNMP). If a circuit goes down, Overview alerts the Network Operations staff with an audible alarm and changes the color of the component. When an alert is received, Network Operations personnel immediately:

a) Verify and diagnose the problem
b) Coordinate repair with other networking service groups
c) Track problems, and
d) Document problem and resolution into a trouble ticket data base.

NSI Operations offers the NSI science community reliable connectivity by exercising prompt assessment and resolution of network problems.
NSI Site Acronym List

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ARC1</td>
<td>Ames Research Center, Moffett Field, CA (router #1)</td>
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<tr>
<td>ARC2</td>
<td>Ames Research Center, Moffett Field, CA (router #2)</td>
</tr>
<tr>
<td>ASF</td>
<td>Alaska SAR Facility/University of Alaska Geophysical Institute</td>
</tr>
<tr>
<td>AUS</td>
<td>Australian Academic Research Network</td>
</tr>
<tr>
<td>BBSO</td>
<td>Big Bear Solar Observatory, Big Bear City, CA</td>
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<tr>
<td>CGBE</td>
<td>Capital Gallery Building, East Wing, Washington, D.C.</td>
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<tr>
<td>CIW</td>
<td>Carnegie Institution of Washington, Washington, D.C.</td>
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<tr>
<td>CTIO</td>
<td>Cerro Tololo Inter-American Observatory, Chile</td>
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<tr>
<td>DFRF</td>
<td>Ames-Dryden Flight Research Facility, Edwards AFB, CA</td>
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<tr>
<td>E-PSP</td>
<td>Exterior-Packet Switching Processor Gateway to NSFNET</td>
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<tr>
<td>EAST</td>
<td>Interoperability Gateway</td>
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<tr>
<td>ESI</td>
<td>Astrophysics Data System, Ellery Systems Inc., Boulder, CO</td>
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<tr>
<td>FA</td>
<td>Ford Aerospace, ST DADS Program, Seabrook, MD</td>
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<tr>
<td>GCGO</td>
<td>Gilmore Creek Geophysical Observatory, Alaska</td>
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<tr>
<td>GISS</td>
<td>Goddard Institute for Space Studies, New York, NY</td>
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<tr>
<td>GSFC1</td>
<td>Goddard Space Flight Center, Greenbelt, MD (router #1)</td>
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<tr>
<td>GSFC2</td>
<td>Goddard Space Flight Center, Greenbelt, MD (router #2)</td>
</tr>
<tr>
<td>GSFC3</td>
<td>Goddard Space Flight Center, Greenbelt, MD (router #3)</td>
</tr>
<tr>
<td>GSFC4</td>
<td>Goddard Space Flight Center, Greenbelt, MD (router #4)</td>
</tr>
<tr>
<td>HAYSTK</td>
<td>Haystack Observatory, Westford, MA</td>
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<tr>
<td>HQ</td>
<td>NASA Headquarters, Washington, D.C.</td>
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<tr>
<td>ICOT</td>
<td>Institute for New Generation Computer Technology, Japan</td>
</tr>
<tr>
<td>ISTS</td>
<td>Institute for Space and Terrestrial Science, York University, Ontario, Canada</td>
</tr>
<tr>
<td>JPL</td>
<td>Jet Propulsion Laboratory, Pasadena, CA</td>
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<tr>
<td>JSC</td>
<td>Johnson Space Center, Houston, TX</td>
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<tr>
<td>KSC</td>
<td>Kennedy Space Center, Cape Canaveral, FL</td>
</tr>
<tr>
<td>KSU</td>
<td>Kansas State University, Manhattan, KS</td>
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<tr>
<td>LERC</td>
<td>Lewis Research Center, Cleveland, OH</td>
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<tr>
<td>LPARL</td>
<td>Lockheed Palo Alto Research Laboratory, Palo Alto, CA</td>
</tr>
<tr>
<td>MB</td>
<td>BBN Mailbridge to MILNET</td>
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MSFC  Marshall Space Flight Center, Huntsville, AL
MTC   Solar Max Mission, Maryland Trade Center, MD
NCAP24  Encapsulation for AREA 24, ARC, Moffett Field, CA
NCAP56  Encapsulation for AREA 56, UARS Project, GSFC, Greenbelt, MD
NCAR  National Center for Atmospheric Research, Boulder, CO
NGS   National Geodetic Survey, Rockville, MD
NZ    University of Waikato, New Zealand
RICE  Sesquinet, Rice University, Houston, TX
SAO   Smithsonian Astrophysical Observatory, Cambridge, MA
SRA   Science Research Associates, Glastonbury, CT
SSC   Stennis Space Center, MS
STIF  NASA Scientific and Technical Information Facility, Linthicum, MD
STSCI  Space Telescope Science Institute, Baltimore, MD
STX   ST Systems Corp, Lanham, MD
SWRI  Southwest Research Institute, San Antonio, TX
UAZ   University of Arizona, Tucson, AZ
UHI   University of Hawaii, Honolulu, HI
UMD   SURAnet, University of Maryland, College Park, MD
UMT   University of Montana, Missoula, MT
USF   University of South Florida, St. Petersburg, FL
USNO  United States Naval Observatory, Washington, D.C.
WFF   Wallops Flight Facility, Wallops Island, VA
WWB   National Oceanographic and Atmospheric Administration, World Weather Building, Camp Springs, MD
NSI NOC's most frequently asked questions.

Q. What does NSI NOC mean?
A. *NASA Science Internets' Network Operations Center.*

Q. What does NSI NOC do?
A. *The NSI network operations staff monitors the NASA Science Internet.*

Q. Does NSI NOC perform other duties besides monitoring the NASA Science Internet?
A. *Yes, we are also site contacts for other NOCs.*
Q. What hours during the day can NSI NOC be reached?
A. 24 hours a day, 7 days a week.

Q. Who do I contact when I'm experiencing networking problems?
A. *If you are unable to solve problem through your local site manager, call NSI NOC directly at 415 604-3655.*