Systems Architecture Description

COLOR KEY
- National Science Foundation (NSF)
- National Aeronautics and Space Administration (NASA)
- Department of Defense (DoD)

GOES-3

1.544/1.024 Mbps
To/From SP

GOES 9m
L/S-Band
Antenna

256/128 kbps
To/From SP
(Back-up only)

TDRS
F4-F6

GOES Backup
3m L/S-Band
Antenna

S-Band (Ops Traffic)
5 Mbps Bidirectional
Ku-Band (Science Data)
150 Mbps From SP
7 Mbps To SP

University of Miami
Richmond Heights, FL

20m L/S-Band
Antenna

Satcomm
and Network
Equipment

Private
T1
Circuit

USAP Denver
Office

Network
Equipment

PSTN

QWEST
ISDN PRIs

T3

Internap
Commodity
Internet
Access

USAP
Enterprise
Network

VTC

VoIP
Phones

Internet
and email

South Pole
LAN

Network
Equipment

Satcomm
Equipment

Big and
Little
Science
Data

SPTR-2
4.2m S-/Ku-Band
Antenna

NASA White Sands Complex NM

18.2m Ku-Band
Antenna

Satcomm
Equipment

Network
Equipment

Private
T3
Circuit

Network
Equipment

Internet 2

GigEthernet via
OC-48

Researchers'
Home
Institutions

IRIDIUM
Satellites

Iridium
Equipment

28.8 kbps – 12 circuit
Multichannel email link

Iridium
L-Band
Antennas

Ka-Band
Antenna

Satcomm
and Network
Equipment

DoD Iridium Gateway
Wahiawa, HI

PSTN

Commercial
Phone Lines

Iridium Handsets

Voice and Single Channel Data (2.4 kbps) Dial-up Service