

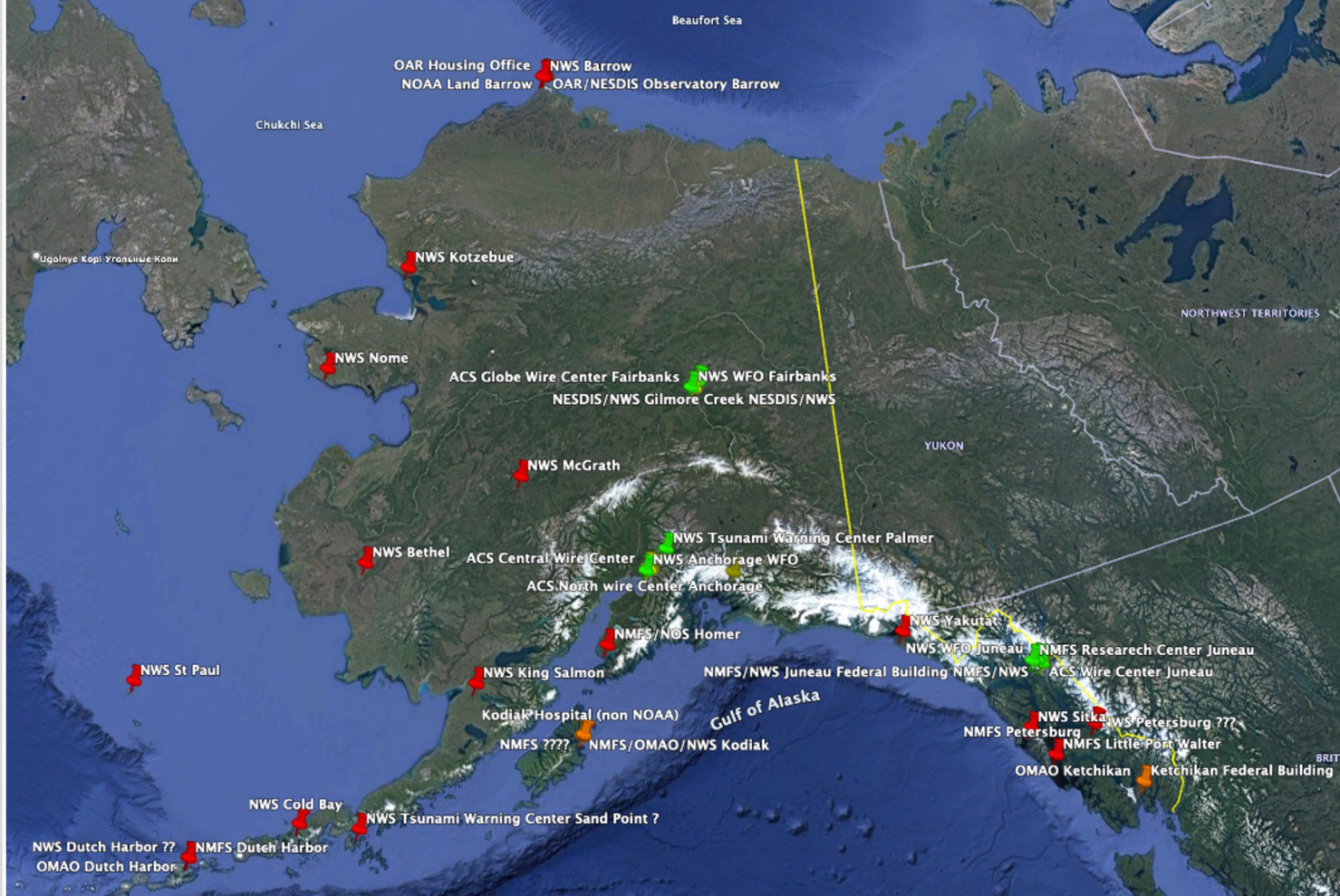


# N-Wave's Progress in Alaska & Future Outlook





# NOAA Sites in Alaska



# Current Alaska Network Topology 21/22

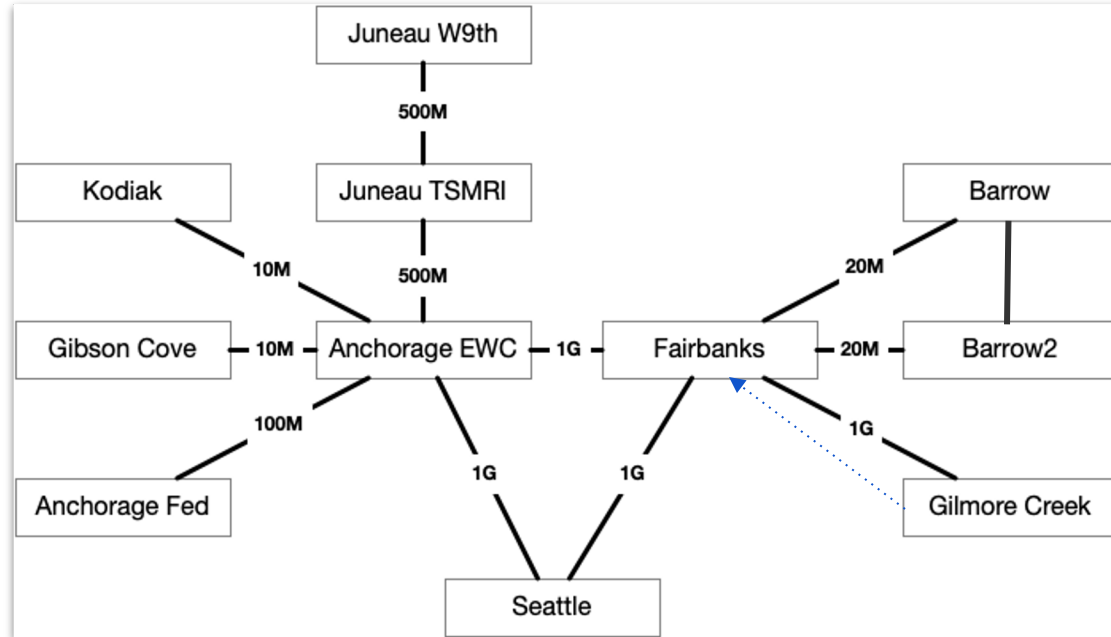
Increased Footprint and Resiliency.

**N-Wave 1G Core:** Anchorage, Fairbanks, Seattle

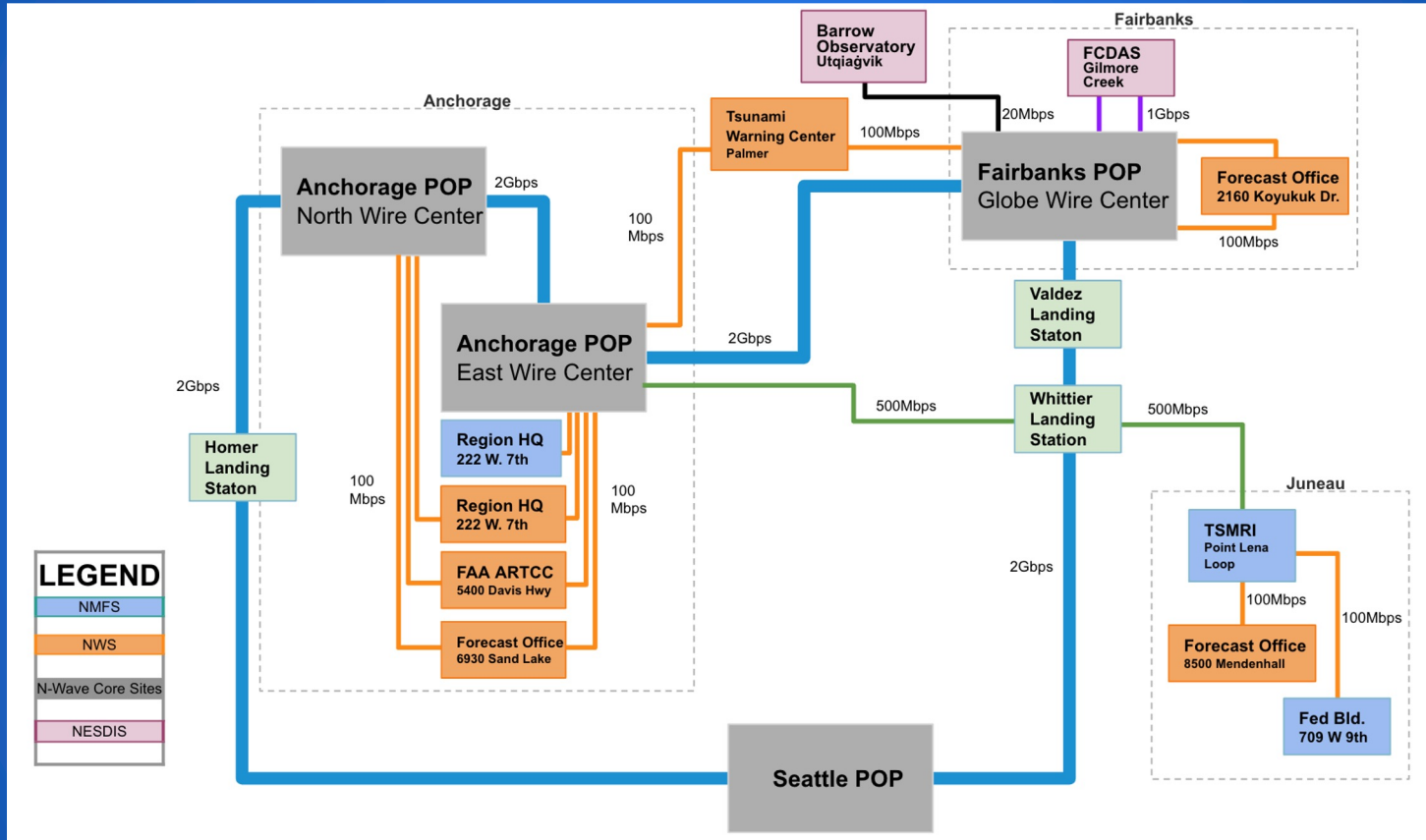
Aggregated NOAA sites  
Throughout the state to the core

## Fairbanks - Critical Operations

- USGS
- NOAA/GOES/POES/DSCOV R/PAAN/ISTRAC/JASON-3
- JPSS
- DMSP
- US Space Force



# Augmentation to Support NWS 23/24



# Next Steps

## Establish NOAA Trusted Internet Connection

- As NOAA sites migrate to the N-Wave Alaska core network, there is a need to optimize/lower latency of commodity internet connectivity which today traverses the Seattle NOAA TICAP
- N-Wave, in cooperation with the NOAA Cyber Security Division, will deploy a TICAP in Anchorage per the same CONUS capabilities
- In parallel, for further optimization of data flow, N-Wave will deploy a peering exchange



# Peering Exchange

**Peering should be seen as a strategy to:**

- **Reduce cost of transit**
- **Reduce the complexity of connections to a destination(s) by connecting directly**
- **Require higher network performance**
- **Seek greater security**

# N-Wave Alaska Peering Exchange and TIC

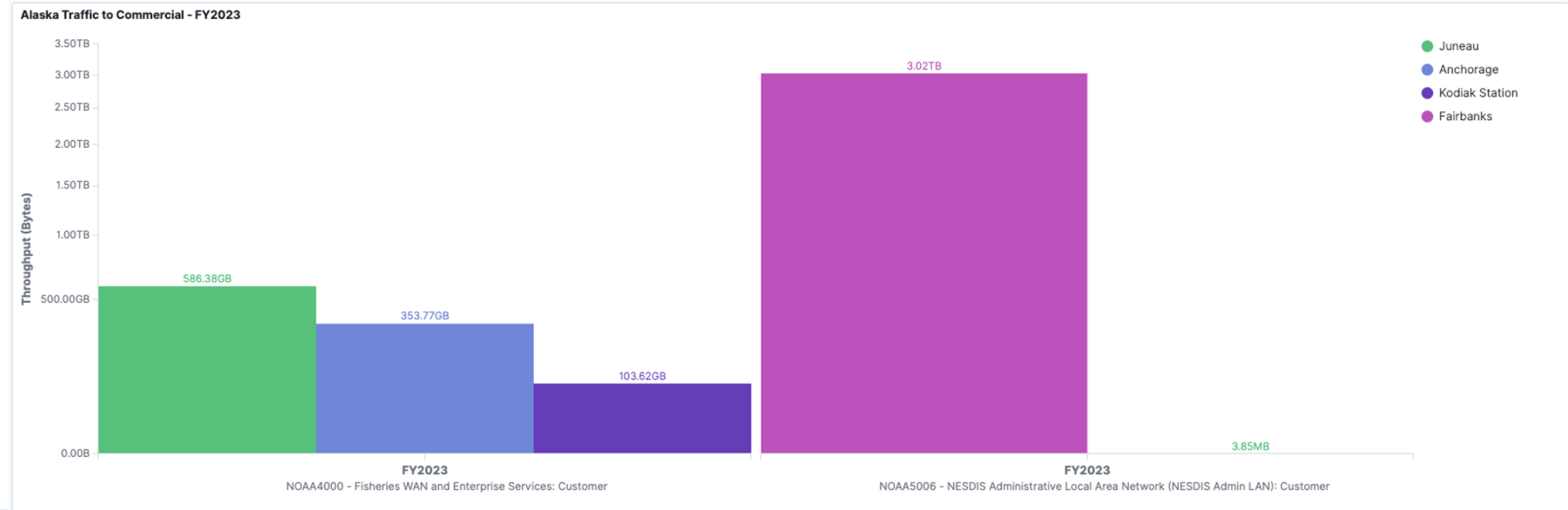
- No current resident carrier neutral peering exchange in AK
- N-Wave growth offers opportunity for federal government to support instantiation of an IX
- NOAA N-Wave plans to deploy a Trusted internet Connection (TIC) in the Anchorage area within FY24
- TICs are large costly deployments and an IX deployment is small enough to bring into scope for N-Wave's TIC implementation in AK
- The IX will be operated leveraging best practices and industry standards
- The primary purpose of this IX is to keep Alaska network traffic in Alaska for NOAA and other government agencies
- Exchange will be open to all interested parties

# NOAA Flows

Flows destined for the State via Seattle  
4 Month snapshot, Juneau, Anchorage, Kodiak, Fairbanks

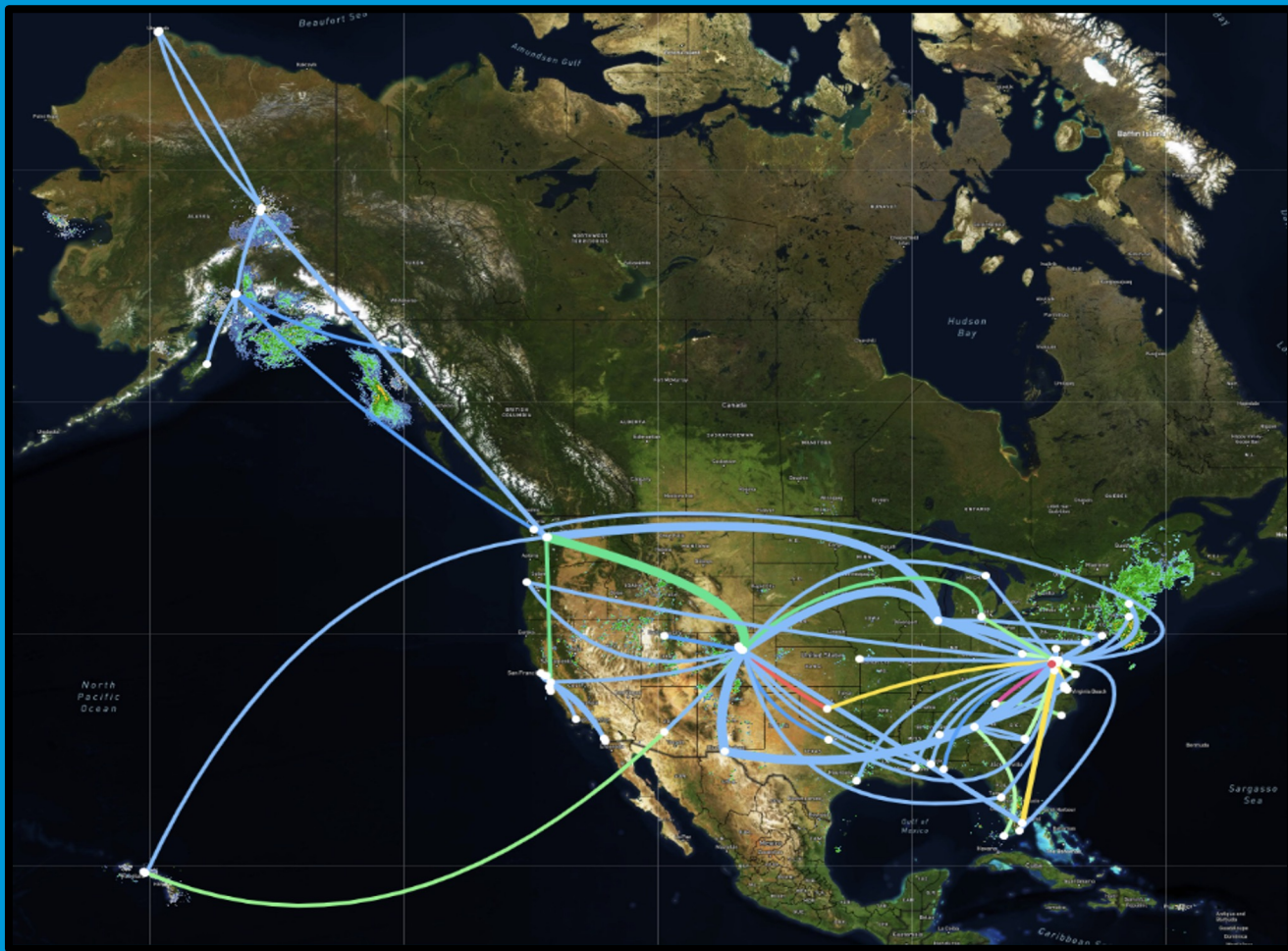
Search DQL 📅 Sep 1, 2023 @ 00:00:00.00 → Dec 31, 2023 @ 23:59:59.99 ↻ Refresh

+ Add filter

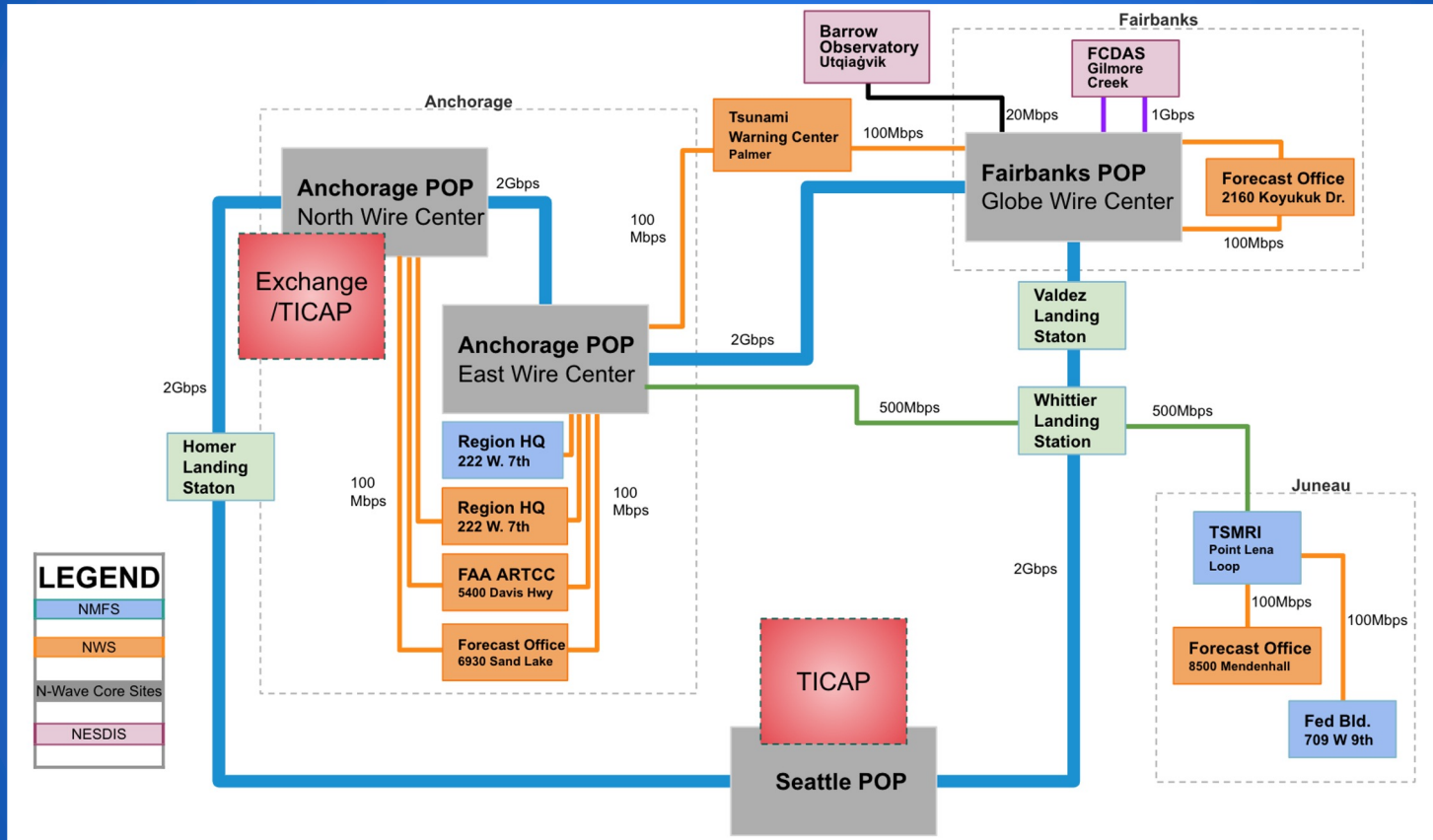




# N-Wave World View



# Initial Peering Exchange- NOAA TICAP





# QUESTIONS?

**Robert Sears**, N-Wave Director  
Email: [Robert.Sears@noaa.gov](mailto:Robert.Sears@noaa.gov)  
Phone: (202) 964-0628

**Jerry Janssen**, International Networks Engineer  
Email: [Jerry.Janssen@noaa.gov](mailto:Jerry.Janssen@noaa.gov)  
Phone: (303) 256-6543

*"Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Networking and Information Technology Research and Development Program."*

The Networking and Information Technology Research and Development  
(NITRD) Program

**Mailing Address:** NCO/NITRD, 2415 Eisenhower Avenue, Alexandria, VA 22314

**Physical Address:** 490 L'Enfant Plaza SW, Suite 8001, Washington, DC 20024, USA Tel: 202-459-9674,  
Fax: 202-459-9673, Email: [nco@nitrd.gov](mailto:nco@nitrd.gov), Website: <https://www.nitrd.gov>

