

GOES Data Collection System (DCS) What You Need to Know for GOES-R

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NOAA Satellite and Information Service
National Environmental Satellite, Data, and Information Service (NESDIS)

What is GOES DCS?

- National Critical System for Data Relay
- Near-Real time data transmissions through GOES satellite for surface based systems
- Used for monitoring environmental events
 - Tsunamis
 - Floods
 - Fires
 - Synoptic Observations
- Data Communications for most emergency warning systems in the Western Hemisphere (footprint of GOES)
- Delivers 6M+ Observations per day into global observing system



Who Uses GOES DCS?

- National Weather Service (largest data user)
- U.S. Geological Survey (largest platform operator)
 - River gauges (approximately 11,000)
 - Earthquake sensors
 - Volcano Sensors
- U.S. Forest Service, Bureau of Land Management, tribal governments, military bases
 - Wildland Fire monitoring
- National Ocean Service, National Tsunami Warning Centers, International Ocean Commission (IOC)
 - Tide levels, Tsunami monitoring
- Hundreds of international Hydrometeorological agencies in the footprint of GOES
 - Measuring just about everything



Requirements

- Can transmit any environmental parameter that can be measured
- Must be government or government sponsored
- Must apply for a System Use Agreement (SUA) and be approved before transmitting
- Must use Certified Transmitters (determined by NOAA to not interfere with satellite or other users)
- Must conform to NOAA System Use Policies
- Must be a “good neighbor” to all other users



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System Use Agreement

- Automated application now available
 - <https://dcs1.noaa.gov>, <https://dcs3.noaa.gov>
 - Electronically complete and submit
- Must be renewed regularly
 - 5 years for government agencies
 - 1 year for transmitter manufacturers
- Signatory on System Use Agreement must have authority to correct transmitter or interference problems for the program identified
- Can have multiple users under a single System Use Agreement



DADDS

- DCS Administration and Data Distribution System
 - Manages user and platform information
 - Channel and time assignments
 - User contact information
 - User logins
 - Data monitoring and download
 - New network list capability will make downloads (exports) easier
 - Dissemination to other circuits
 - National Weather Service, Global Telecommunications Service
 - DOMSAT
 - LRIT (in the future)



DADDS

- Tables have fields that users must update
 - platform location
 - maintenance contact
- Self-Registering allows access to tables
- Can be used to download (export) data
- Use of “WMO Header” allows routing on Global Telecommunications Service
- Users can verify assignments before equipment is deployed (make sure to put transmitter on the right channel at the right time)



DADDS Updates

- What's Coming
 - Machine to Machine Interface (allows automated updates)
 - Load Balancing, Auto failover of web pages
- Still Need Tables Populated: PDT, Contact Information, Group Contacts, Group Managers
- Access at:
 - <https://dcs1.noaa.gov>
 - <https://dcs2.noaa.gov>
 - <https://dcs3.noaa.gov>
 - <https://dcs4.noaa.gov>





NOAA GOES DATA COLLECTION SYSTEM

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



[About DCS](#) [Contacts](#) [Reports](#) [Operational Satellite Information](#)

[» SEARCH](#)

- » [Current DADDS Bulletins](#)
- » <https://dcs1.noaa.gov>
- » <https://dcs2.noaa.gov>
- » [GOES DCS Customer Service Information](#)
- » [Metadata File Downloads](#)
 - [pdts_compressed.txt](#)
 - [chans_by_baud.txt](#)
- » [F.A.Q.](#)
- » [Manuals](#)
- » [Support](#)
- » [LRGS Status](#)

Related Links

- » [GOES DCS Certification Standard Version 2.0](#)

DCS Administration and Data Distribution System (DADDS)

NOAA's System for Managing and Providing Access to Data from GOES DCS

DADDS

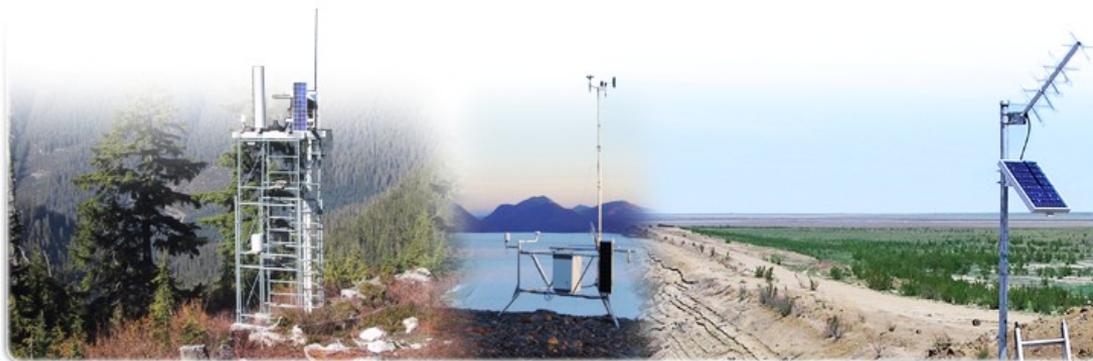
User Login

email:

password:

Login

- Need a login? Click [here](#) to register.
- Forgotten password? Click [here](#).
- Need Help? Click [here](#).



System Changes

- Version II Transmitters (also known as Certification Standard 2 or CS2) required for all new deployments
 - Smaller channels, allow for doubling system capacity
- CS1 Equipment Already Purchased can be Deployed until May 31, 2016
 - Depending on Vendor may be upgradeable to CS2
- All Existing CS1 Equipment can be used until May 31 2026



System Changes

- Two Way Communication under investigation
- Ground System Upgrades being recommended
- Technology advances since last research effort under review
 - Signal Processing
 - Wave Form
 - Integration into Existing Systems



Changes Required for GOES-R

- Frequency Downlink Shift
 - GOES N/O/P downlink at 1694.3-1694.7
 - GOES R downlink at 1679.7-1680.1
 - May require Replacing LNB (Low Noise Block) Receiver
- No changes in uplink frequencies
- No other changes on satellite side
- Any other changes occurring on ground side (transmitters and demodulators)



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Contact Us

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- <http://noaasis.noaa.gov/DCS>
- DADDS Login:
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 - <https://dcs2.noaa.gov>
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