

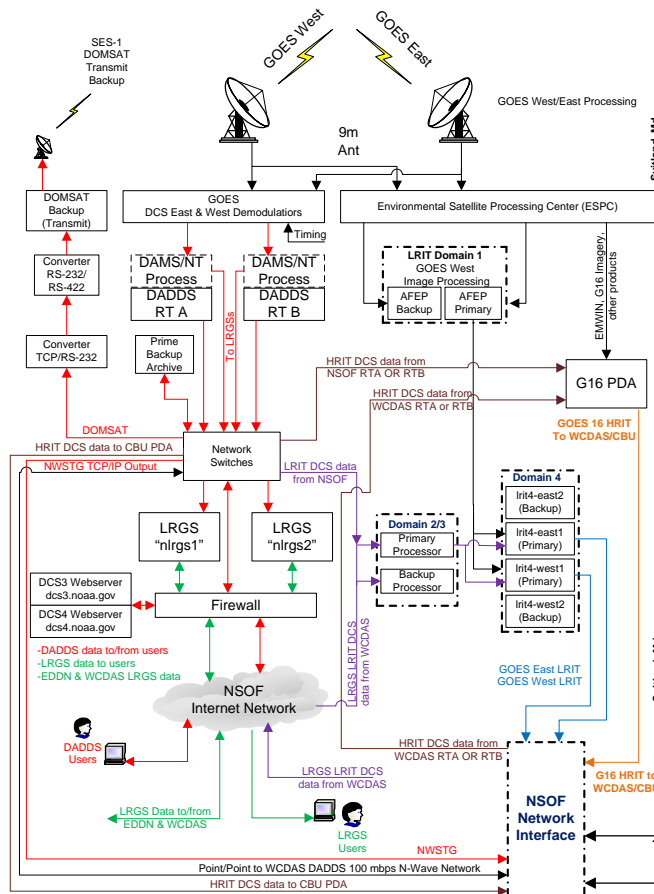
NOAA Command and Data Acquisition Station



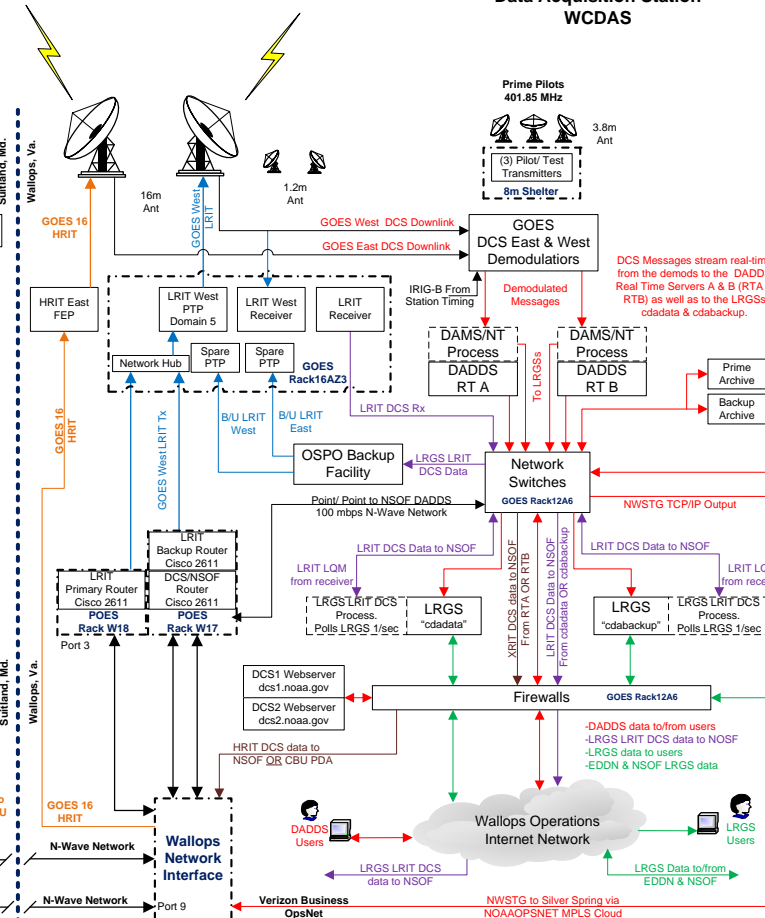
The Big Picture

GOES East
NOAA GOES DCS
GOES West

NOAA Satellite Operations Facility NSOF

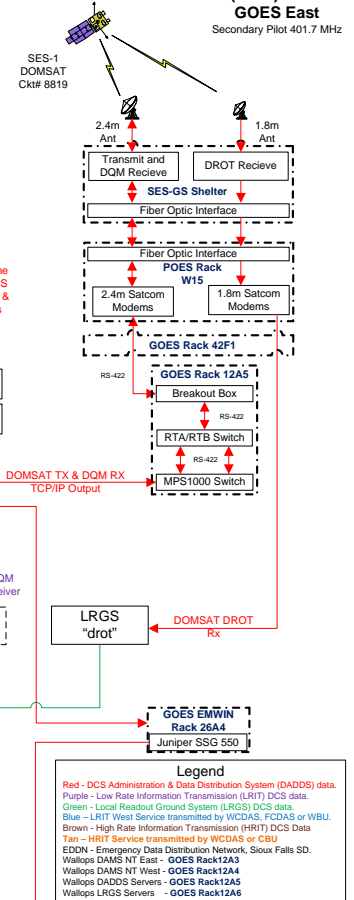


NOAA Wallops Command & Data Acquisition Station WCDAS



West
East

Wallops Backup (WBU)GSFC GOES East Secondary Pilot 401.7 MHz



Legend
Red - DCS Administration & Data Distribution System (DADDOS) data.
Purple - Low Rate Information Transmission (LRIT) DCS data.
Green - Local Readout Ground System (LRGS) DCS data.
Blue - LRIT West Service transmitted by WCDAS, FCDA5 or WBU.
Brown - High Rate Information Transmission (HRIT) DCS data.
Tan - HRIT Service transmitted by WCDAS or CBU.
EDN - Emergency Data Distribution Network, Sioux Falls SD.
Wallops DMS NT East - GOES Rack12A3
Wallops DMS NT West - GOES Rack12A4
Wallops DADDOS Servers - GOES Rack12A5
Wallops LRGS Servers - GOES Rack12A6

Philip Whaley
Wallops CDAS
23 Feb, 2018



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DCS (GOES Data Collection System)

- DCS receives a combined 34K messages an hour from our GOES-16 (East) and GOES-15 (West) satellites.
- DCS has several different mechanisms for data retrieval provide by NOAA.
 - DADDS (DCS Administration and Data Distribution System)
 - NWSTG feed
 - DOMSAT commercial satellite feed
 - LRGS (Local Readout Ground System)
 - LRIT (GOES-15) and HRIT (GOES-16)



How Do We Get All of the Messages?

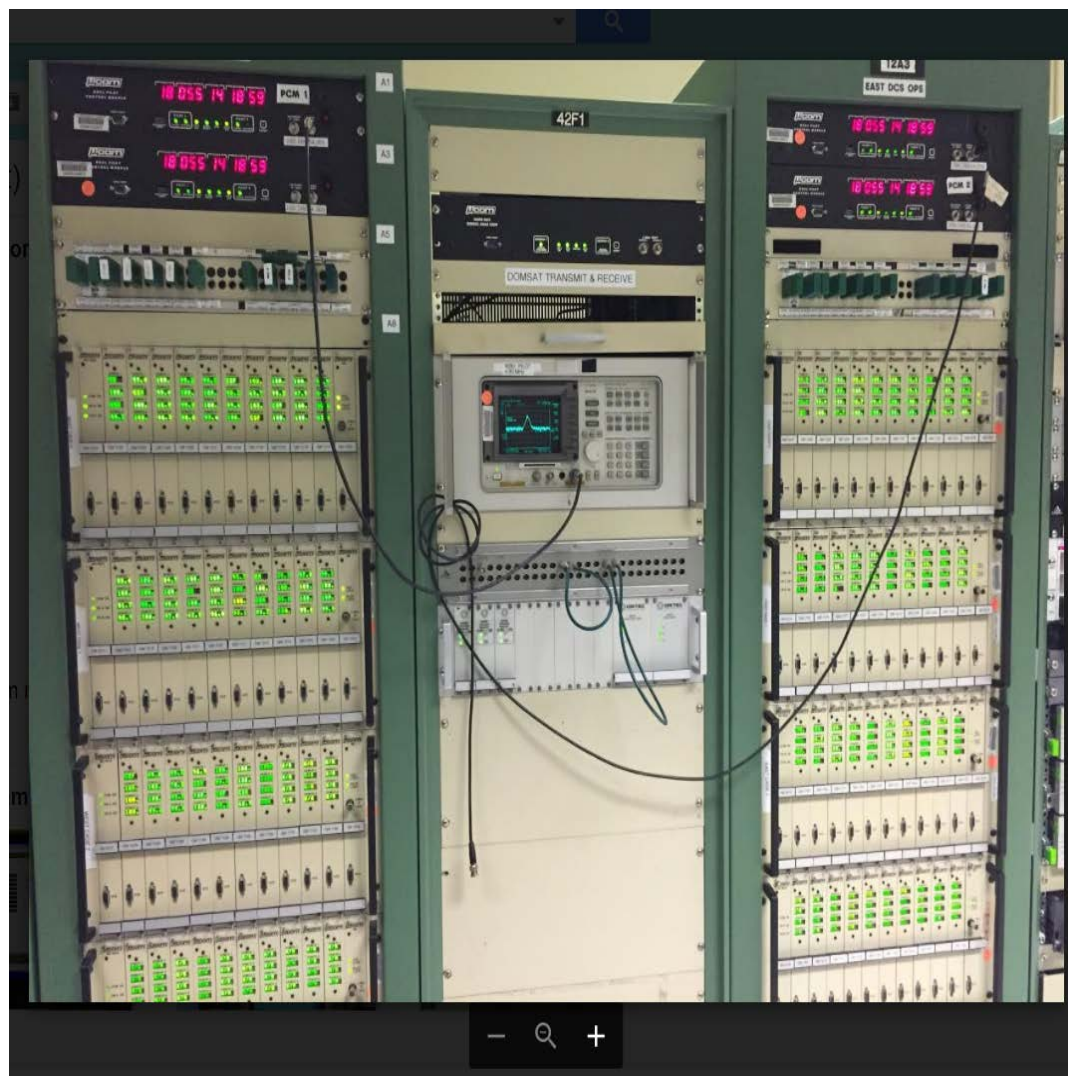


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The Demods and DCPMs'



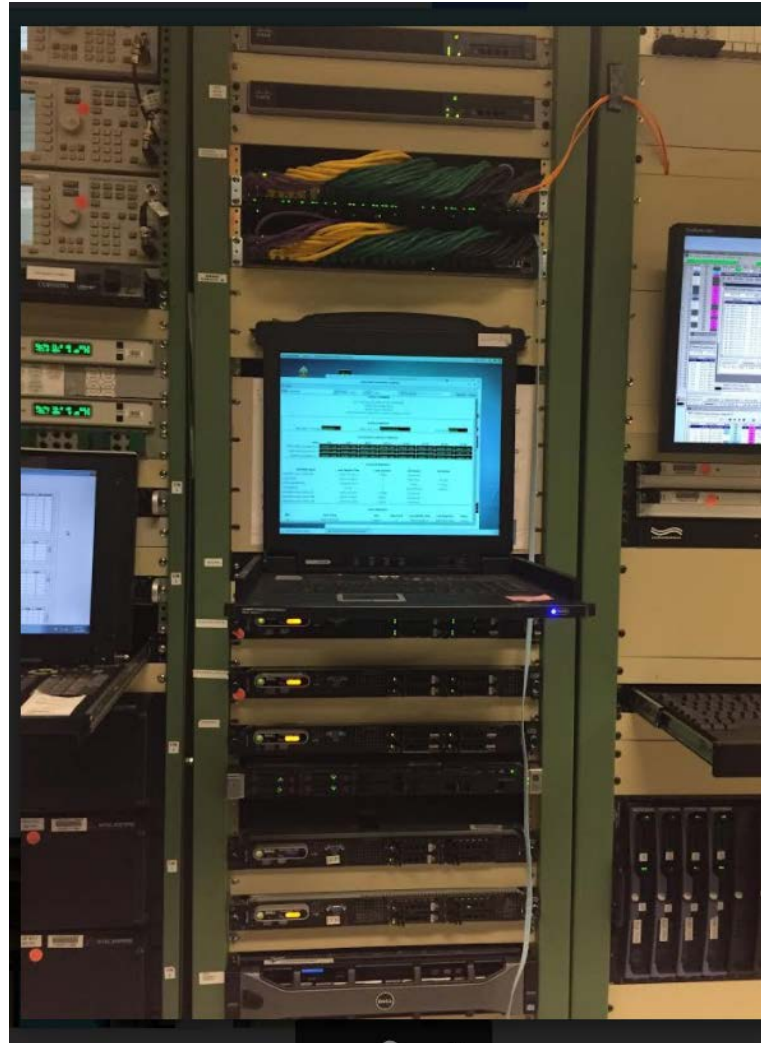
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The Servers



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LRGS Information

NOAA - GOES DCS1 Data Collection System - WCDA - Google Chrome

Secure | <https://dcs1.noaa.gov/Account/Login>

NOAA HOME WEATHER OCEANS FISHERIES CHARTING SATELLITES CLIMATE RESEARCH COASTS CAREERS

NOAA GOES DATA COLLECTION SYSTEM
OFFICE OF SATELLITE AND PRODUCT OPERATIONS

DCS Administration and Data Distribution System (DADDS)
NOAA's System for Managing and Providing Access to Data from GOES DCS

DADDS DCS1
User Login

Email

Password

SIGN IN

- Need a Login? Click [here](#).
- Forgotten Password? Click [here](#).
- DCS Field Test? Click [here](#).
- Need Help? Click [here](#).
- **24/7 Technical Support: (757) 824-7450**
- [DCS Operational Notices RSS Feed](#)

Submit an Application for GOES DCS SUA

Notice to Users

WARNING

This is a United States NOAA computer system, which may be accessed and used only for official Government business by authorized personnel. Unauthorized access or use of this computer system may subject violators to criminal, civil, and/or administrative action.

All information on this computer system may be intercepted, recorded, read, copied, and disclosed by and to authorized personnel for official purposes, including criminal investigations. Access or use of this computer system by any person whether authorized or unauthorized, constitutes consent to these terms.

WARNING

Register for Direct Readout and Services Notifications
Help us keep you up to date with changes and anomalies!

Operational Notices
12/14/2017 17:39 UTC

Help Desk
24/7 Operations

System Information

Program Information

DADDS File Downloads
02/24/2018 13:00 UTC
pdfs_compressed.txt
chans_by_baud.txt

Wallops Webservers
dcs1.noaa.gov
dcs2.noaa.gov

NSOF Webservers
dcs3.noaa.gov
dcs4.noaa.gov

LRGS Status

LRGS Deadlines
Password Implementation:
August 9, 2016
SHA-256 Implementation:
August 17, 2016

Related Links
[Satellite Conference 2015](#)
[DCS Newsletter - Dec. 2013](#)



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LRGS Information



LRGS Summary Status

UTC: February 24, 2018 13:21:09 (Day 055)

<i>Host Name</i>	<i>Status Time</i>	<i>LRGS Status</i>	<i>Primary Downlink Status</i>	<i>Primary Quality Last Hour</i>	<i>Aggregate Quality Last Hour</i>	<i>Msgs This Hour</i>	<i>Num DDS Clients</i>	<i>ILEX LRGS Version</i>
cdadata.wcda.noaa.gov	02/24 13:20:53	OK	DRGS:Active	99.51%	99.51%	12687	98	9.1
cdabackup.wcda.noaa.gov	02/24 13:20:42	OK	DRGS:Active	99.51%	99.51%	12580	40	9.1
cdadrot.wcda.noaa.gov	02/24 13:20:57	OK	DOMSAT:Active	99.59%	99.59%	12708	12	9.1
nlrgs1.noaa.gov	02/24 13:18:13	OK	DRGS:Active	99.5%	99.5%	11230	5	9.1
nlrgs2.noaa.gov	02/24 13:19:00	OK	DRGS:Active	99.49%	99.49%	11730	6	9.1
lrgseddn1.cr.usgs.gov	02/24 13:20:41	OK	DDS:Active	99.5%	99.5%	12570	56	9.1
lrgseddn2.cr.usgs.gov	02/24 13:20:41	OK	DDS:Active	99.51%	99.51%	12665	30	9.1
lrgseddn3.cr.usgs.gov	02/24 13:20:41	OK	DDS:Active	99.5%	99.5%	12572	23	9.1



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LRGS Servers

- There are several LRGS Servers. They are at different locations across the country.

<u>cdadata.wcda.noaa.gov</u>
<u>cdabackup.wcda.noaa.gov</u>
<u>cdadrot.wcda.noaa.gov</u>
<u>nlrgs1.noaa.gov</u>
<u>nlrgs2.noaa.gov</u>
<u>lrgseddn1.cr.usgs.gov</u>
<u>lrgseddn2.cr.usgs.gov</u>
<u>lrgseddn3.cr.usgs.gov</u>



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The screenshot displays the 'WCAU DCS System Monitor Status' window. At the top, a status bar indicates 'File: LRT'. Below this, a warning message is visible: 'WARNING CDADATA 2018/02/24-14:17:10 DdsRecv:2 Error making connection to 172.16.102.185:16003: lrgs.lrgsmain.LrgsInputException: IO Error on connection to 172.16.102.185:16003: java...'. The main interface is divided into several sections: 'More Info', 'Acknowledges', 'History', and 'Filter'. Below these, there are five panels showing system status for different components: LRGs-CDADATA, LRGs-CDABACKUP, LRGs-DROT, LRIT-CDADATA, and LRIT-CDABACKUP. Each panel displays various metrics such as Date Source, System Status, System Time, Host Clients, DCSAT Search, Messages, Dropped, Received, and Alerts. The bottom of the window shows a log of system events, including warnings and errors related to invalid arguments and authentication failures.

LRGs-CDADATA	LRGs-CDABACKUP	LRGs-DROT	LRIT-CDADATA	LRIT-CDABACKUP
Date Source: Uplink	Date Source: Uplink	Date Source: Downlink	System Status: Dormant	System Status: Running
System Status: Running	System Status: Running	System Status: Running	System Time: 02/24 14:20:23	System Time: 02/24 14:20:23
System Time: 02/24 14:20:24	System Time: 02/24 14:20:23	System Time: 02/24 14:20:24	DCS Server: localhost	DCS Server: localhost
Host Clients: 63	Host Clients: 40	Host Clients: 11	Last Msg: 02/22 01:48:32	Last Msg: 02/24 14:20:24
DCSAT Search: N/A	DCSAT Search: N/A	DCSAT Search: 13640	Msgs (PMA): 0 / 0 / 0	Msgs (PMA): 0 / 484 / 11801
Messages: 12374	Messages: 12374	Messages: 12346	Files (PMA): 0 / 0 / 0	Files (PMA): 0 / 20 / 12
Dropped: N/A	Dropped: N/A	Dropped: 0	Quarant (PMA): 0 / 0 / 0	Quarant (PMA): 0 / 0 / 0
Received: N/A	Received: N/A	Received: N/A	Dormant 24 Hour: 140.80.213.48	Dormant 24 Hour: 140.80.213.48
Alerts: 1	Alerts: 0	Alerts: 0	Dormant 30 Hour: 140.80.213.47	Dormant 30 Hour: 140.80.213.47
			Dormant 2C Hour: 172.26.3.28	Dormant 2C Hour: 172.26.3.28
			Alerts: 0	Alerts: 0

WARNING CDADATA 2018/02/24-14:19:58 Invalid arguments in AuthHello message 'envvars 1605514162' .
 WARNING CDADATA 2018/02/24-14:19:58 Delete: Received AuthHello missing required args from client (unknown) 9205.193.80.247 (id=149655210)
 WARNING CDABACKUP 2018/02/24-14:20:19 Invalid arguments in AuthHello message 'envvars 1805514184' .
 WARNING CDABACKUP 2018/02/24-14:20:19 Delete: Received AuthHello missing required args from client (unknown) 8205.193.80.247 (id=14945442)

User Account Setup

- Call a DCS operator at 757-824-7450 to begin the process for account set up.
- Have available the following:
 - Name
 - Email Address
 - Organization
 - Telephone Number
 - Preferred 6-character user name



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Important Note

- Your DADDS account and your LRGS account are different.
- DADDS and LRGS are two separate systems and the usernames are not interchangeable.



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User Account Set Up

- Must be a unique username.
 - We will check to see if your username is available.
 - Currently, once you establish your password there is no requirement to change it.
 - Once your account is established, it will be immediately available on CDADATA. Your credentials will propagate to the other LRGS machines within 24 hours.



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Password Convention

- An initial password is generated by a GUI interface located at Wallops.
- The DCS operator will provide your new password over the phone.
- You may choose to keep this password or change it at your leisure.
- IT security requirements will not let us email you the password at this time.



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Password Convention

- **NOAA CITR-021 Password Requirements**

- Passwords must contain at least 12 non-blank characters
- Password must contain 3 of the following four character classes: upper case letters, lower case letters, digits, special characters.
- Passwords cannot contain the user name or any dictionary word or acronym that is 5 characters or longer
- When changing a password, you cannot reuse any of the last 8 passwords, or any password that was set in the past 2 years.



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Password Convention

- Users can change their passwords if so desired.
- The instructions are found in the Client User Guide provided on the download page.
- Additionally, we cannot see your password once it has been initially created. If you forget, you will have to call the Wallops DCS help desk to have a new one created.



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Downloads

- You do not need to login to your DADDS account to download the client
- Go to our web page for the download link
- DCS1.NOAA.gov, DCS2.NOAA.gov
- Download the user manual first and read the particulars for your particular application
- Download the client software

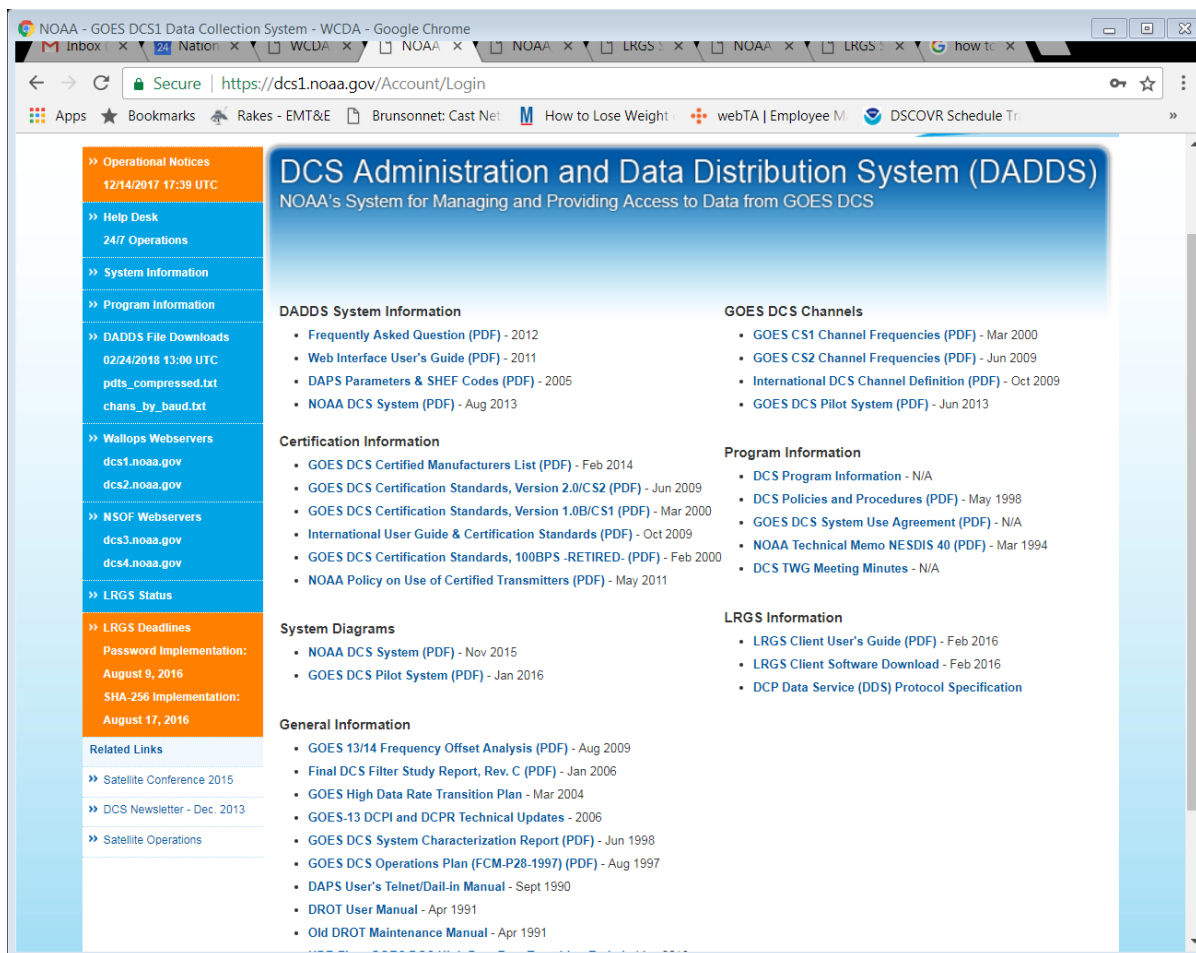


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LRGS Downloads



The screenshot shows the NOAA DADDS (Data Administration and Data Distribution System) website. The browser address bar indicates the URL is <https://dcs1.noaa.gov/Account/Login>. The page features a left-hand navigation menu with links to Operational Notices, Help Desk, System Information, Program Information, DADDS File Downloads, Wallops Webserver, NSOF Webserver, LRGS Status, and LRGS Deadlines. The main content area is titled "DCS Administration and Data Distribution System (DADDS)" and "NOAA's System for Managing and Providing Access to Data from GOES DCS". It is organized into several sections: DADDS System Information, Certification Information, System Diagrams, General Information, GOES DCS Channels, Program Information, and LRGS Information. Each section contains a list of downloadable documents, many of which are PDFs, with their respective dates.

DCS Administration and Data Distribution System (DADDS)
NOAA's System for Managing and Providing Access to Data from GOES DCS

DADDS System Information

- Frequently Asked Question (PDF) - 2012
- Web Interface User's Guide (PDF) - 2011
- DAPS Parameters & SHEF Codes (PDF) - 2005
- NOAA DCS System (PDF) - Aug 2013

Certification Information

- GOES DCS Certified Manufacturers List (PDF) - Feb 2014
- GOES DCS Certification Standards, Version 2.0/CS2 (PDF) - Jun 2009
- GOES DCS Certification Standards, Version 1.0B/CS1 (PDF) - Mar 2000
- International User Guide & Certification Standards (PDF) - Oct 2009
- GOES DCS Certification Standards, 100BPS - RETIRED - (PDF) - Feb 2000
- NOAA Policy on Use of Certified Transmitters (PDF) - May 2011

System Diagrams

- NOAA DCS System (PDF) - Nov 2015
- GOES DCS Pilot System (PDF) - Jan 2016

General Information

- GOES 13/14 Frequency Offset Analysis (PDF) - Aug 2009
- Final DCS Filter Study Report, Rev. C (PDF) - Jan 2006
- GOES High Data Rate Transition Plan - Mar 2004
- GOES-13 DCPI and DCPR Technical Updates - 2006
- GOES DCS System Characterization Report (PDF) - Jun 1998
- GOES DCS Operations Plan (FCM-P28-1997) (PDF) - Aug 1997
- DAPS User's Telnnet/Dail-in Manual - Sept 1990
- DROT User Manual - Apr 1991
- Old DROT Maintenance Manual - Apr 1991

GOES DCS Channels

- GOES CS1 Channel Frequencies (PDF) - Mar 2000
- GOES CS2 Channel Frequencies (PDF) - Jun 2009
- International DCS Channel Definition (PDF) - Oct 2009
- GOES DCS Pilot System (PDF) - Jun 2013

Program Information

- DCS Program Information - N/A
- DCS Policies and Procedures (PDF) - May 1998
- GOES DCS System Use Agreement (PDF) - N/A
- NOAA Technical Memo NESDIS 40 (PDF) - Mar 1994
- DCS TWG Meeting Minutes - N/A

LRGS Information

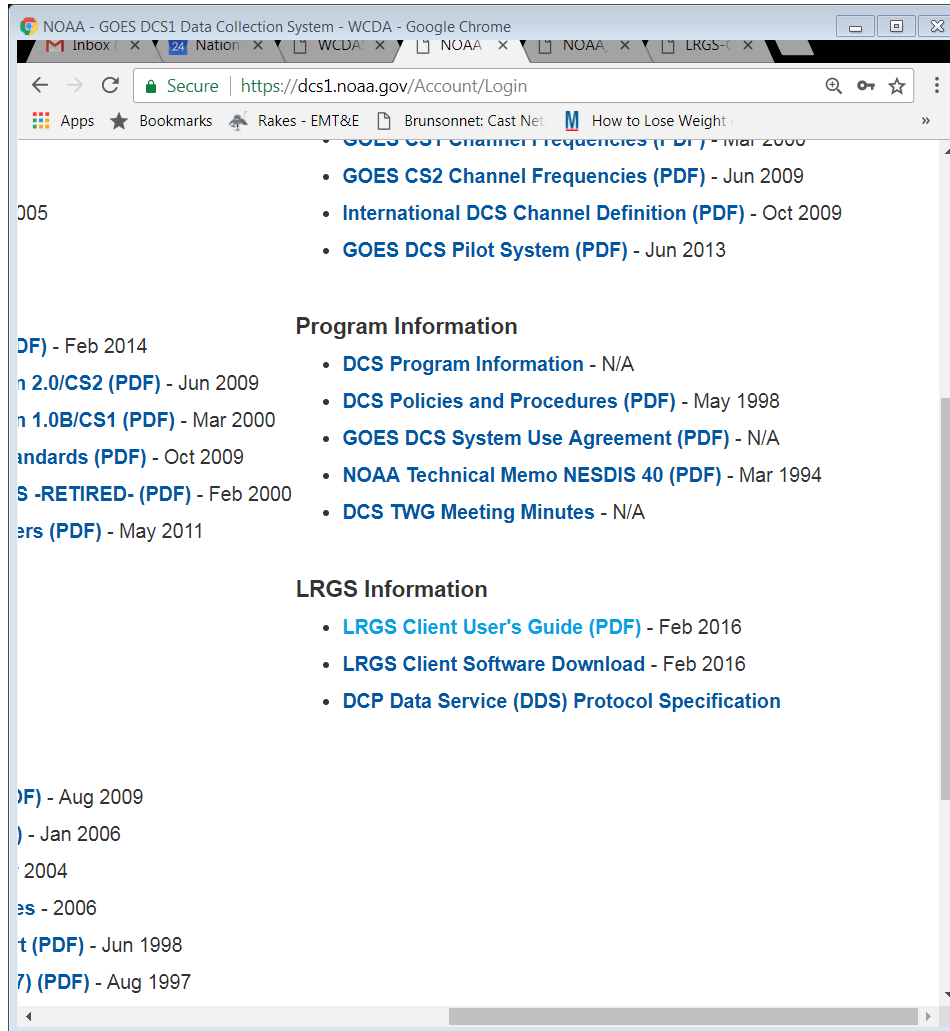
- LRGS Client User's Guide (PDF) - Feb 2016
- LRGS Client Software Download - Feb 2016
- DCP Data Service (DDS) Protocol Specification

Left Navigation Menu:

- Operational Notices
12/14/2017 17:39 UTC
- Help Desk
24/7 Operations
- System Information
- Program Information
- DADDS File Downloads
02/24/2018 13:00 UTC
pdis_compressed.txt
chans_by_baud.txt
- Wallops Webserver
dcs1.noaa.gov
dcs2.noaa.gov
- NSOF Webserver
dcs3.noaa.gov
dcs4.noaa.gov
- LRGS Status
- LRGS Deadlines
Password Implementation:
August 9, 2016
SHA-256 Implementation:
August 17, 2016
- Related Links
Satellite Conference 2015
DCS Newsletter - Dec. 2013
Satellite Operations



LRGS Downloads



NOAA - GOES DCS1 Data Collection System - WCDA - Google Chrome

Secure | <https://dcs1.noaa.gov/Account/Login>

Apps ★ Bookmarks Rakes - EMT&E Brunsonnet: Cast Net M How to Lose Weight

GOES CS2 Channel Frequencies (PDF) - Jun 2009

- [GOES CS2 Channel Frequencies \(PDF\)](#) - Jun 2009
- [International DCS Channel Definition \(PDF\)](#) - Oct 2009
- [GOES DCS Pilot System \(PDF\)](#) - Jun 2013

005

[DF](#) - Feb 2014

[n 2.0/CS2 \(PDF\)](#) - Jun 2009

[n 1.0B/CS1 \(PDF\)](#) - Mar 2000

[Standards \(PDF\)](#) - Oct 2009

[S -RETIRED- \(PDF\)](#) - Feb 2000

[ers \(PDF\)](#) - May 2011

Program Information

- [DCS Program Information](#) - N/A
- [DCS Policies and Procedures \(PDF\)](#) - May 1998
- [GOES DCS System Use Agreement \(PDF\)](#) - N/A
- [NOAA Technical Memo NESDIS 40 \(PDF\)](#) - Mar 1994
- [DCS TWG Meeting Minutes](#) - N/A

LRGS Information

- [LRGS Client User's Guide \(PDF\)](#) - Feb 2016
- [LRGS Client Software Download](#) - Feb 2016
- [DCP Data Service \(DDS\) Protocol Specification](#)

[DF](#) - Aug 2009

[\)](#) - Jan 2006

[2004](#)

[es](#) - 2006

[t \(PDF\)](#) - Jun 1998

[7\) \(PDF\)](#) - Aug 1997



NOAA Satellite and Information Service

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LRGS Support

- Wallops has very limited support for LRGS
- It's a free OpenDCS suite developed several years ago to give users another option for data retrieval.
- At Wallops we issue passwords for the system, keep the interface servers running and ensure DCS data is flowing to the LRGS's.



LRGS Support

- Wallops staff does not help with installation of the client software. We provide a secure download of the latest client and user guides.



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LRGS Support

- If you have detailed LrgsClient questions, contact Cove Software, LLC for specific application support. Cove's phone number is listed in the last page of the user manual.



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