

# The STAR Central Data Repository (SCDR): A Scientist's Guide

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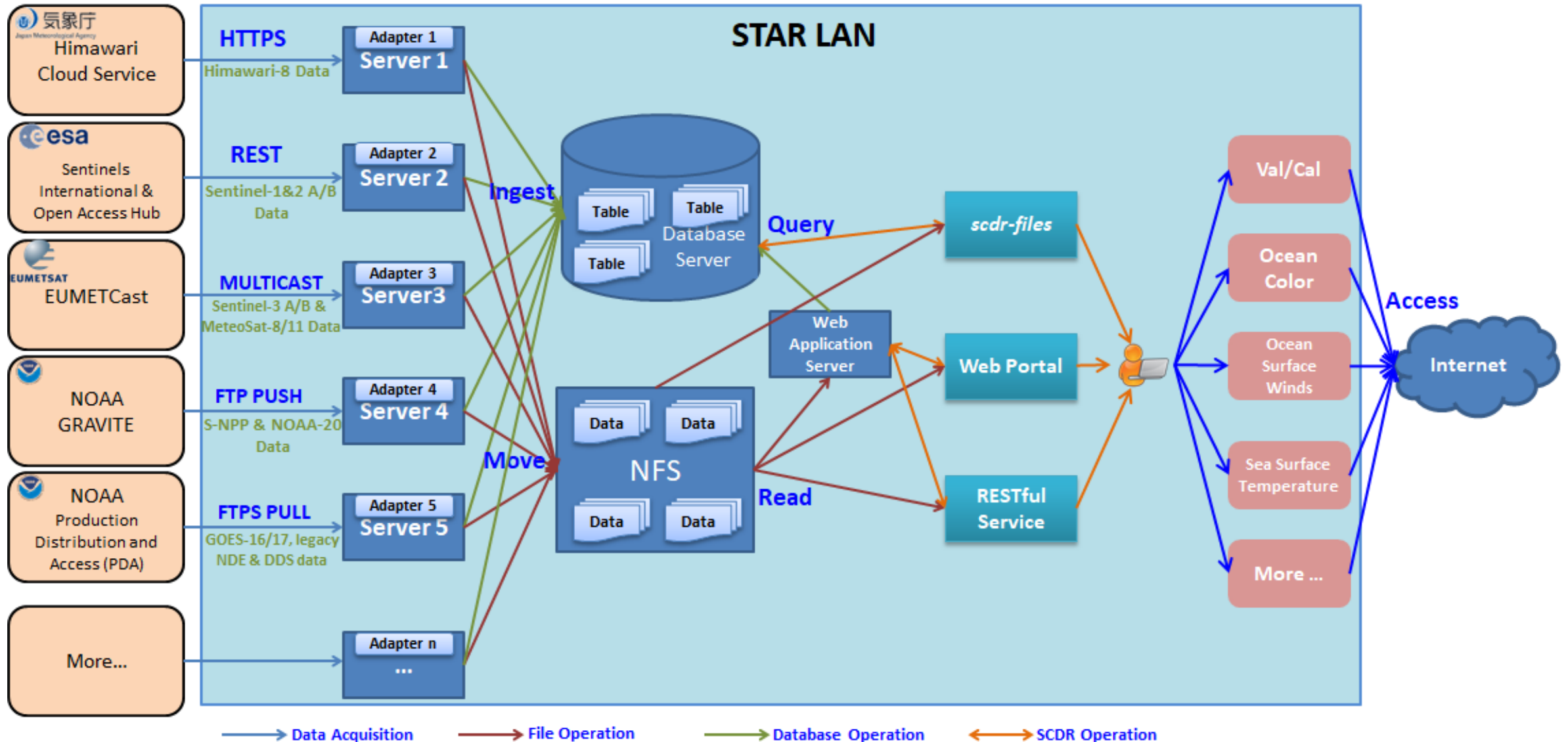
# Outline

- What Is SCDR and Why Do We Have It?
- How Do I Use SCDR?
- How Are New Data Sets Added to SCDR?

# What is SCDR? SCDR Facts

- SCDR = STAR Central Data Repository
- A 1.5-Petabyte central repository of satellite and selected ground and model data, including:
  - Polar operational satellites (POES, JPSS, DMSP)
  - Geostationary operational satellites (GOES, Meteosat, Himawari)
  - Non-operational, non-NOAA satellites (Terra/Aqua, GPM, Sentinel)
  - GFS and RAP model forecasts
- Because of space limitations, generally contains a 1-year repository of L1b data and a 90 to 120-day repository of L2 data
- SCDR is accessible only from the STAR LAN!
- SCDR is managed by the STAR Data Management Group (DMG)

# What is SCDR? SCDR Architecture



# Why Do We Have SCDR?

- Avoids wasting disk space with multiple repositories of the same dataset in multiple locations
- Avoids redundant data pulls by serving as a single point of entry for datasets into STAR from e.g., PDA and GRAVITE

# How Do I Use SCDR?

- The SCDR database can be queried from a Web portal, a Linux command, or an API.
- Web portal: <http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/>

# How Do I Use SCDR? (Web Portal Query)

Select the satellite platform or model you want

The screenshot displays the NOAA STAR SCDR Web Portal interface. The header includes the NOAA logo and the text "NOAA STAR CENTER FOR SATELLITE APPLICATIONS AND RESEARCH". Below the header is the title "STAR Central Data Repository (SCDR) Web Portal".

The search interface includes several filters:

- Specify Attribute:** A dropdown menu for "Platform" is open, showing options: Any, ADM-AEOLUS, Aqua, ATCF, AVHRR, BUOYSHIP, Coriolis, CryoSat, F-13, F-14, F-15, and F-16. This menu is highlighted with a red dashed border.
- Product:** A dropdown menu set to "Any".
- Temporal Range (L):** Includes "Begin" and "End" date pickers, both set to "20".
- Time Range:** Includes radio buttons for "Observation Day of Year", "Ingestion Date", and "Time Range". The "Time Range" option is selected, with start and end time pickers set to "00:00:00" and "23:59:59".
- Specify Time Range For:** Includes radio buttons for "Entire Range Of Days" and "Each Day".
- Order by Date/Time:** Includes radio buttons for "Descending" and "Neither".
- Records Per Page:** A dropdown menu set to "25".
- Search and Reset:** Blue buttons for "Search" and "Reset".

Below the filters, there is a section for "Available Datasets in SCDR as 2:00 AM, 2019-05-21 (EST)". It includes an "Export as CSV" button and a table of datasets.

Name ↑	Description	Files	Volume	Begin Date/Time	End Date/Time	Rolling Days	Data Latency
<input type="checkbox"/> ABI-L2-ACHAC-G16	GOES-R L2 Intermediate Cloud Top Heig...	25,634	97.1 GB	2019-01-25 23:57:16+00	2019-04-26 23:48:58+00	90	>16 days
<input type="checkbox"/> ABI-L2-ACHAC-G17	GOES-S L2 Intermediate Cloud Top Heig...	25,766	124.1 GB	2019-01-23 23:57:19+00	2019-04-23 23:58:57+00	90	>17 days
<input type="checkbox"/> ABI-L2-ACHAF-G16	GOES-R L2 Intermediate Cloud Top Heig...	9,840	239.5 GB	2019-01-26 00:00:34+00	2019-04-26 23:49:55+00	90	>16 days
<input type="checkbox"/> ABI-L2-ACHAF-G17	GOES-S L2 Intermediate Cloud Top Heig...	9,535	243.1 GB	2019-01-24 00:00:38+00	2019-04-23 23:59:41+00	90	>17 days
<input type="checkbox"/> ABI-L2-ACHAM1-G...	GOES-R L2 Intermediate Cloud Top Heig...	128,181	47.9 GB	2019-01-26 00:00:24+00	2019-04-26 23:57:34+00	90	>16 days
<input type="checkbox"/> ABI-L2-ACHAM1-G...	GOES-S L2 Intermediate Cloud Top Heig...	128,820	45.1 GB	2019-01-23 23:59:27+00	2019-04-23 23:59:33+00	90	>17 days
<input type="checkbox"/> ABI-L2-ACHAM2-G...	GOES-R L2 Intermediate Cloud Top Heig...	128,089	45.9 GB	2019-01-26 00:00:54+00	2019-04-26 23:58:04+00	90	>16 days
<input type="checkbox"/> ABI-L2-ACHAM2-G...	GOES-S L2 Intermediate Cloud Top Heig...	128,552	39.3 GB	2019-01-23 23:59:51+00	2019-04-23 23:59:57+00	90	>17 days
<input type="checkbox"/> ABI-L2-ACHC-G16	GOES-R L2 Intermediate Cloud Top Heig...	25,652	1.0 TB	2019-01-25 23:57:16+00	2019-04-26 23:53:58+00	90	>16 days
<input type="checkbox"/> ABI-L2-ACHC-G17	GOES-S L2 Intermediate Cloud Top Heig...	25,765	1.3 TB	2019-01-23 23:57:19+00	2019-04-23 23:58:57+00	90	>17 days
<input type="checkbox"/> ABI-L2-ACHF-G16	GOES-R L2 Intermediate Cloud Top Heig...	9,837	2.4 TB	2019-01-26 00:00:34+00	2019-04-26 23:49:55+00	90	>16 days
<input type="checkbox"/> ABI-L2-ACHF-G17	GOES-S L2 Intermediate Cloud Top Heig...	9,534	2.4 TB	2019-01-24 00:00:38+00	2019-04-23 23:59:41+00	90	>17 days

# How Do I Use SCDR? (Web Portal Query)

Select the specific data set you want

The screenshot shows the NOAA STAR SCDR Web Portal interface. The search criteria are: Platform: GOES-16, Product: Any, Temporal Range (UTC) from 2019-05-20 to 2019-05-21, and Order by Date/Time: Neither. A red dashed box highlights the Product dropdown menu, which is open to show a list of specific data products. A red arrow points from the text 'Select the specific data set you want' to this menu.

Specify Attribute

Platform: GOES-16 Product: Any

Temporal Range (UTC)

Observation Date: Begin 2019-05-20, End 2019-05-21

Observation Day of Year: 2019-140, 2019-141

Output Option

Order by Date/Time: Ascending, Descending, Neither

Spatial Option

Search

Available Datasets in SCDR as 2:00 AM, 2019-05-21 (EST)

Export as CSV

Name ↑	Description	Files	Volume	Begin Date/Time	End Date/Time	Rolling Days	Data Latency
<input type="checkbox"/> ABI-I-L2-ACHAC-...	GOES-R L2 Intermediate Cloud Top Height...	25,634	97.1 GB	2019-01-25 23:57:16+00	2019-04-26 23:48:58+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACHAF-...	GOES-R L2 Intermediate Cloud Top Height...	9,840	239.5 GB	2019-01-26 00:00:34+00	2019-04-26 23:49:55+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACHAM1...	GOES-R L2 Intermediate Cloud Top Height...	128,181	47.9 GB	2019-01-26 00:00:24+00	2019-04-26 23:57:34+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACHAM2...	GOES-R L2 Intermediate Cloud Top Height...	128,089	45.9 GB	2019-01-26 00:00:54+00	2019-04-26 23:58:04+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACHC-G16	GOES-R L2 Intermediate Cloud Top Height...	25,652	1.0 TB	2019-01-25 23:57:16+00	2019-04-26 23:53:58+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACHF-G16	GOES-R L2 Intermediate Cloud Top Height...	9,837	2.4 TB	2019-01-26 00:00:34+00	2019-04-26 23:49:55+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACHM1-...	GOES-R L2 Intermediate Cloud Top Tempe...	128,214	471.5 GB	2019-01-26 00:00:24+00	2019-04-26 23:58:34+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACHM2-...	GOES-R L2 Intermediate Cloud Top Tempe...	128,173	450.0 GB	2019-01-26 00:00:54+00	2019-04-27 00:00:05+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACHTC-...	GOES-R L2 Intermediate Cloud Top Tempe...	25,657	97.2 GB	2019-01-25 23:57:16+00	2019-04-26 23:38:58+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACMC1-...	GOES-R L2 Intermediate Clear Sky Masks...	25,644	9.8 GB	2019-01-25 23:57:16+00	2019-04-26 23:13:58+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACMC2-...	GOES-R L2 Intermediate Clear Sky Masks...	25,636	109.2 GB	2019-01-25 23:57:16+00	2019-04-26 23:48:58+00	90	>16 days
<input type="checkbox"/> ABI-I-L2-ACMF1-...	GOES-R L2 Intermediate Clear Sky Masks...	9,833	24.5 GB	2019-01-26 00:00:34+00	2019-04-26 23:59:55+00	90	>16 days



# How Do I Use SCDR? (Web Portal Query)

Select the range of dates and times you want and your output options

SCDR will give the time range of the available data and the total volume

STAR Central Data Repository (SCDR) Web Portal

Specify Attribute

Platform: GOES-16 Product: ABI-L2-RRQPEF-G16

Temporal Range (UTC)

Observation Date  Observation Day of Year  Ingestion Date  Time Range

Specify Time Range For

Entire Range Of Days  Each Day

Output Option

Order by Date/Time:  Ascending  Descending  Neither Records Per Page: 25

Spatial Option

Search Reset

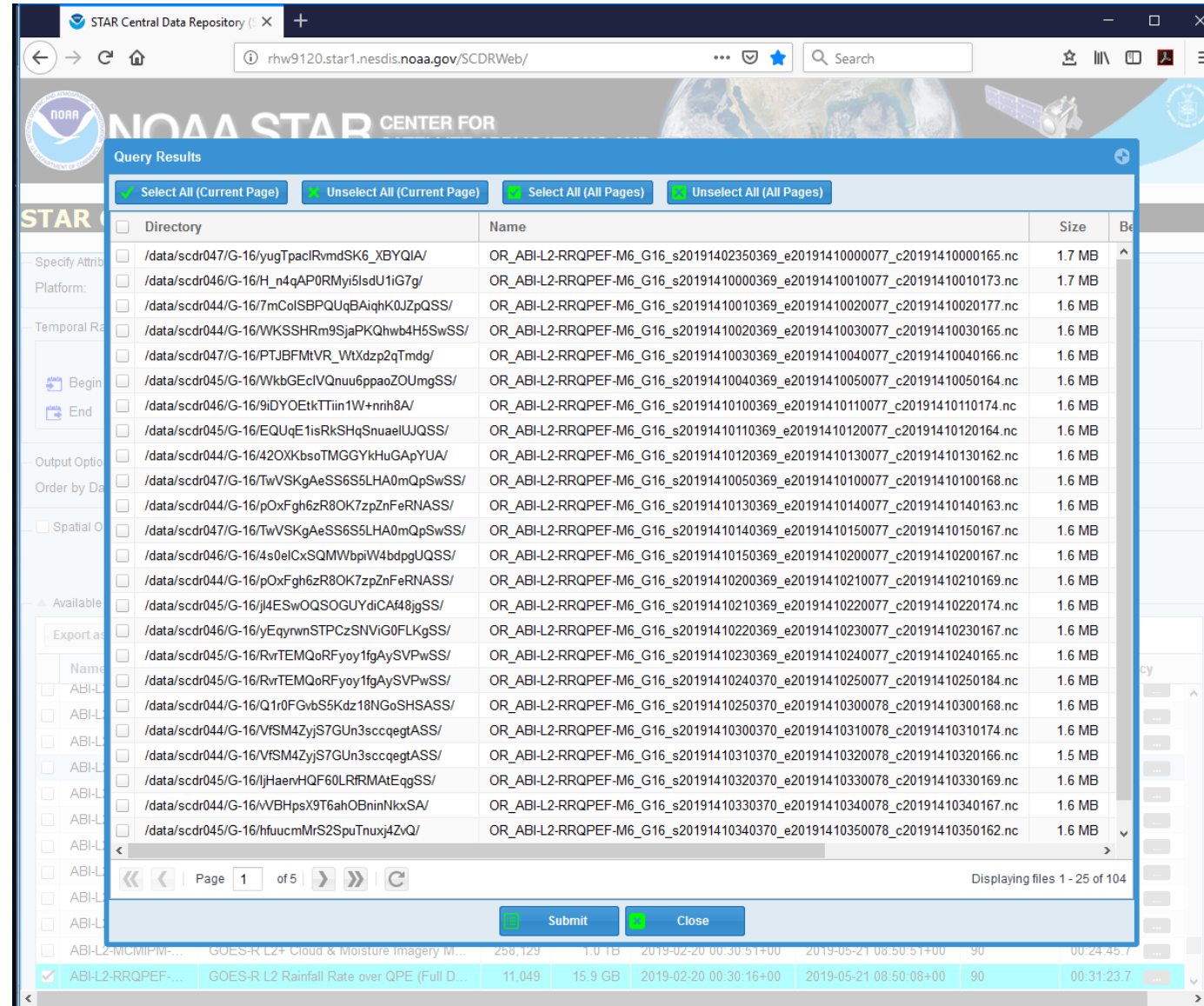
Available Datasets in SCDR as 2:00 AM, 2019-05-21 (EST)

Export as CSV

Name ↑	Description	Files	Volume	Begin Date/Time	End Date/Time	Rolling Days	Data Latency
<input type="checkbox"/> ABI-L2-LS1F-G16	GOES-R L2 Land Surface Skin Temperat...	2,153	815.7 MB	2019-02-20 00:10:16+00	2019-05-21 08:10:08+00	90	00:33:43.5
<input type="checkbox"/> ABI-L2-LSTM-G16	GOES-R L2 Land Surface Skin Temperat...	4,291	747.5 MB	2019-02-20 00:01:21+00	2019-05-21 08:01:17+00	90	00:25:25.0
<input type="checkbox"/> ABI-L2-LVMPG-G16	GOES-R L2 Legacy Vertical Moisture Profil...	25,804	740.9 GB	2019-02-20 00:31:13+00	2019-05-21 08:49:11+00	90	00:28:16.3
<input type="checkbox"/> ABI-L2-LVMPF-G16	GOES-R L2 Legacy Vertical Moisture Profil...	11,048	2.4 TB	2019-02-20 00:20:16+00	2019-05-21 08:40:08+00	90	00:34:31.1
<input type="checkbox"/> ABI-L2-LVMPM-G16	GOES-R L2 Legacy Vertical Moisture Profil...	257,874	508.7 GB	2019-02-20 00:31:21+00	2019-05-21 08:50:18+00	90	00:25:03.7
<input type="checkbox"/> ABI-L2-LVTPC-G16	GOES-R L2 Legacy Vertical Temperature ...	25,811	741.1 GB	2019-02-20 00:31:13+00	2019-05-21 08:49:11+00	90	00:27:35.6
<input type="checkbox"/> ABI-L2-LVTPF-G16	GOES-R L2 Legacy Vertical Temperature ...	11,053	2.4 TB	2019-02-20 00:20:16+00	2019-05-21 08:40:08+00	90	00:34:48.8
<input type="checkbox"/> ABI-L2-LVTPM-G16	GOES-R L2 Legacy Vertical Temperature ...	257,931	508.8 GB	2019-02-20 00:30:24+00	2019-05-21 08:50:18+00	90	00:25:09.8
<input type="checkbox"/> ABI-L2-MCMIPC-...	GOES-R L2+ Cloud & Moisture Imagery M...	25,835	1.3 TB	2019-02-20 00:31:13+00	2019-05-21 08:49:11+00	90	00:26:30.8
<input type="checkbox"/> ABI-L2-MCMIPF-...	GOES-R L2+ Cloud & Moisture Imagery M...	11,055	3.4 TB	2019-02-20 00:30:16+00	2019-05-21 08:50:09+00	90	00:31:57.8
<input checked="" type="checkbox"/> ABI-L2-RRQPEF-...	GOES-R L2 Rainfall Rate over QPE (Full D...	11,049	15.9 GB	2019-02-20 00:30:16+00	2019-05-21 08:50:08+00	90	00:31:23.7

# How Do I Use SCDR? (Web Portal Query)

Query returns a list of files, pathnames, sizes, and start/end times (need to scroll right to see the rest)



The screenshot displays the NOAA STAR Central Data Repository web portal. The browser address bar shows the URL: `rhw9120.star1.nesdis.noaa.gov/SCDRWeb/`. The page title is "STAR Central Data Repository". The main content area shows a "Query Results" window with a table of files. The table has columns for "Directory", "Name", "Size", and "Be". The "Directory" column contains paths like `/data/scdr047/G-16/yugTpacIRvmdSK6_XBYQIA/`. The "Name" column contains file names like `OR_ABI-L2-RRQPEF-M6_G16_s20191402350369_e20191410000077_c20191410000165.nc`. The "Size" column shows file sizes like "1.7 MB". The "Be" column is partially visible. The table is paginated, showing "Page 1 of 5" and "Displaying files 1 - 25 of 104". There are "Submit" and "Close" buttons at the bottom of the query results window.

Directory	Name	Size	Be
<input type="checkbox"/> /data/scdr047/G-16/yugTpacIRvmdSK6_XBYQIA/	OR_ABI-L2-RRQPEF-M6_G16_s20191402350369_e20191410000077_c20191410000165.nc	1.7 MB	
<input type="checkbox"/> /data/scdr046/G-16/H_n4qAPORMyi5isdU1iG7g/	OR_ABI-L2-RRQPEF-M6_G16_s20191410000369_e20191410010077_c20191410010173.nc	1.7 MB	
<input type="checkbox"/> /data/scdr044/G-16/7mColSBPQUqBAiqhK0JZpQSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410010369_e20191410020077_c20191410020177.nc	1.6 MB	
<input type="checkbox"/> /data/scdr044/G-16/WKSSHRm9SjaPKQhwb4H5SwSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410020369_e20191410030077_c20191410030165.nc	1.6 MB	
<input type="checkbox"/> /data/scdr047/G-16/PTJBFMtrVr_WtXdzp2qTmdg/	OR_ABI-L2-RRQPEF-M6_G16_s20191410030369_e20191410040077_c20191410040166.nc	1.6 MB	
<input type="checkbox"/> /data/scdr045/G-16/WkbGEcVQnuu6ppaoZOUmgSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410040369_e20191410050077_c20191410050164.nc	1.6 MB	
<input type="checkbox"/> /data/scdr046/G-16/9iDYOEtkTtiin1W+nrih8A/	OR_ABI-L2-RRQPEF-M6_G16_s20191410100369_e20191410110077_c20191410110174.nc	1.6 MB	
<input type="checkbox"/> /data/scdr045/G-16/EQUqE1isRkSHqSnuaelUJQSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410110369_e20191410120077_c20191410120164.nc	1.6 MB	
<input type="checkbox"/> /data/scdr044/G-16/42OXKbsoTMGGYKHuGApYUA/	OR_ABI-L2-RRQPEF-M6_G16_s20191410120369_e20191410130077_c20191410130162.nc	1.6 MB	
<input type="checkbox"/> /data/scdr047/G-16/TwVSKgAeSS6S5LHA0mQpSwSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410050369_e20191410100077_c20191410100168.nc	1.6 MB	
<input type="checkbox"/> /data/scdr044/G-16/pOxFgh6zR8OK7zpZnFeRNASS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410130369_e20191410140077_c20191410140163.nc	1.6 MB	
<input type="checkbox"/> /data/scdr047/G-16/TwVSKgAeSS6S5LHA0mQpSwSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410140369_e20191410150077_c20191410150167.nc	1.6 MB	
<input type="checkbox"/> /data/scdr046/G-16/4s0elCxSQMWbpiW4bdpgUQSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410150369_e20191410200077_c20191410200167.nc	1.6 MB	
<input type="checkbox"/> /data/scdr044/G-16/pOxFgh6zR8OK7zpZnFeRNASS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410200369_e20191410210077_c20191410210169.nc	1.6 MB	
<input type="checkbox"/> /data/scdr045/G-16/j4ESwOQSOGUYdiCA48jgSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410210369_e20191410220077_c20191410220174.nc	1.6 MB	
<input type="checkbox"/> /data/scdr046/G-16/yEqywnSTPCzSNVIG0FLKgSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410220369_e20191410230077_c20191410230167.nc	1.6 MB	
<input type="checkbox"/> /data/scdr045/G-16/RvrTEMQoRFyoy1fgAySVPwSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410230369_e20191410240077_c20191410240165.nc	1.6 MB	
<input type="checkbox"/> /data/scdr045/G-16/RvrTEMQoRFyoy1fgAySVPwSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410240370_e20191410250077_c20191410250184.nc	1.6 MB	
<input type="checkbox"/> /data/scdr044/G-16/Q1r0FGvbS5Kdz18NGoSHSASS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410250370_e20191410300078_c20191410300168.nc	1.6 MB	
<input type="checkbox"/> /data/scdr044/G-16/VISM4ZyjS7GUn3sccqegtASS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410300370_e20191410310078_c20191410310174.nc	1.6 MB	
<input type="checkbox"/> /data/scdr044/G-16/VISM4ZyjS7GUn3sccqegtASS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410310370_e20191410320078_c20191410320166.nc	1.5 MB	
<input type="checkbox"/> /data/scdr045/G-16/ljHaenvHQF60LRfRMAteqgSS/	OR_ABI-L2-RRQPEF-M6_G16_s20191410320370_e20191410330078_c20191410330169.nc	1.6 MB	
<input type="checkbox"/> /data/scdr044/G-16/NVBHpsX9T6ahOBninKxSA/	OR_ABI-L2-RRQPEF-M6_G16_s20191410330370_e20191410340078_c20191410340167.nc	1.6 MB	
<input type="checkbox"/> /data/scdr045/G-16/hfuucmMrS2SpuTnuxj4ZvQ/	OR_ABI-L2-RRQPEF-M6_G16_s20191410340370_e20191410350078_c20191410350162.nc	1.6 MB	

# How Do I Use SCDR? (Web Portal Query)

For selected datasets, you can also search for data in a particular location by clicking the “spatial option” check box and using the tools to draw a search polygon.

For example, a search for NPP DCOMP from for all of 17 June 2019 returns 551 entries that are all over the globe:

The screenshot displays the STAR Central Data Repository web portal. The browser address bar shows the URL: `rhw9120.star1.nesdis.noaa.gov/SCDRWeb/`. The page title is "STAR Central Data Repository". The main content area shows "Query Results" for a search query. The results are displayed in a table with columns: Directory, Name, Size, and Begin Date/Time. The table contains 25 rows of data, all representing NPP DCOMP datasets from June 17, 2019. The file sizes range from 6.9 MB to 29.9 MB. The begin dates range from 2019-06-17 00:01:58+ to 2019-06-17 00:31:51+. The table is paginated, showing "Page 1 of 23" and "Displaying files 1 - 25 of 551". The interface includes navigation buttons like "Select All (Current Page)", "Unselect All (Current Page)", "Select All (All Pages)", and "Unselect All (All Pages)". At the bottom, there are "Submit" and "Close" buttons. The footer shows a progress bar with various statistics: "JPSSRR-CLOUDDC...", "JPSS Risk Reduction VIIRS Daytime Cl...", "121, 126", "2.3 TB", "2019-02-18 00:19:01+00", "2019-06-18 08:03:45+00", "120", "01:46:25.0".

Directory	Name	Size	Begin Date/Time
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170003234_e201906170004475_c201906170104080.nc	7.5 MB	2019-06-17 00:03:23+
/data/scdr043/kqLcypmwSOeGuTvynl34uASS/	JRR-CloudDCOMP_v2r0_npp_s201906170001580_e201906170003221_c201906170104350.nc	6.9 MB	2019-06-17 00:01:58+
/data/scdr040/Vmai8MdmT0W3UJKzKAMmtQSS/	JRR-CloudDCOMP_v2r0_npp_s201906162359072_e201906170000313_c201906170103300.nc	7.0 MB	2019-06-16 23:59:07+
/data/scdr043/kqLcypmwSOeGuTvynl34uASS/	JRR-CloudDCOMP_v2r0_npp_s201906170000326_e201906170001567_c201906170103580.nc	7.0 MB	2019-06-17 00:00:32+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170010304_e201906170011546_c201906170108190.nc	25.9 MB	2019-06-17 00:10:30+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170026098_e201906170027340_c201906170109220.nc	29.6 MB	2019-06-17 00:26:09+
/data/scdr040/Vmai8MdmT0W3UJKzKAMmtQSS/	JRR-CloudDCOMP_v2r0_npp_s201906170004488_e201906170006129_c201906170105180.nc	15.0 MB	2019-06-17 00:04:48+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170009050_e201906170010292_c201906170107490.nc	24.5 MB	2019-06-17 00:09:05+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170007396_e201906170009038_c201906170105460.nc	26.8 MB	2019-06-17 00:07:39+
/data/scdr041/hwNqJ7BKRNitb6eMxgYEvgSS/	JRR-CloudDCOMP_v2r0_npp_s201906170013212_e201906170014454_c201906170109380.nc	19.2 MB	2019-06-17 00:13:21+
/data/scdr040/Vmai8MdmT0W3UJKzKAMmtQSS/	JRR-CloudDCOMP_v2r0_npp_s201906170023190_e201906170024432_c201906170109430.nc	21.9 MB	2019-06-17 00:23:19+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170016120_e201906170017362_c201906170107460.nc	25.1 MB	2019-06-17 00:16:12+
/data/scdr041/hwNqJ7BKRNitb6eMxgYEvgSS/	JRR-CloudDCOMP_v2r0_npp_s201906170019028_e201906170020270_c201906170108400.nc	26.8 MB	2019-06-17 00:19:02+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170014466_e201906170016108_c201906170108490.nc	24.6 MB	2019-06-17 00:14:46+
/data/scdr043/kqLcypmwSOeGuTvynl34uASS/	JRR-CloudDCOMP_v2r0_npp_s201906170024444_e201906170026086_c201906170108340.nc	24.8 MB	2019-06-17 00:24:44+
/data/scdr040/Vmai8MdmT0W3UJKzKAMmtQSS/	JRR-CloudDCOMP_v2r0_npp_s201906170021524_e201906170021524_c201906170108390.nc	18.6 MB	2019-06-17 00:20:28+
/data/scdr041/hwNqJ7BKRNitb6eMxgYEvgSS/	JRR-CloudDCOMP_v2r0_npp_s201906170017374_e201906170019016_c201906170107390.nc	28.1 MB	2019-06-17 00:17:37+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170006142_e201906170007384_c201906170106420.nc	21.4 MB	2019-06-17 00:06:14+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170011558_e201906170013200_c201906170108180.nc	22.8 MB	2019-06-17 00:11:55+
/data/scdr040/Vmai8MdmT0W3UJKzKAMmtQSS/	JRR-CloudDCOMP_v2r0_npp_s201906170021536_e201906170023178_c201906170109200.nc	16.4 MB	2019-06-17 00:21:53+
/data/scdr040/Vmai8MdmT0W3UJKzKAMmtQSS/	JRR-CloudDCOMP_v2r0_npp_s201906170030261_e201906170031502_c201906170110000.nc	29.4 MB	2019-06-17 00:30:26+
/data/scdr043/kqLcypmwSOeGuTvynl34uASS/	JRR-CloudDCOMP_v2r0_npp_s201906170027353_e201906170028594_c201906170110530.nc	28.1 MB	2019-06-17 00:27:35+
/data/scdr043/kqLcypmwSOeGuTvynl34uASS/	JRR-CloudDCOMP_v2r0_npp_s201906170034423_e201906170036065_c201906170112280.nc	20.4 MB	2019-06-17 00:34:42+
/data/scdr042/eS5qMSnqTfqMGgSuBRGX6ASS/	JRR-CloudDCOMP_v2r0_npp_s201906170031515_e201906170033156_c201906170110400.nc	29.1 MB	2019-06-17 00:31:51+

# How Do I Use SCDR? (Web Portal Query)

Selecting the “Spatial Option”  
check box and drawing a  
polygon over the CONUS using  
the polygon tool:

The screenshot displays the NOAA STAR SCDR Web Portal interface. The browser address bar shows the URL: `rhw9120.star1.nesdis.noaa.gov/SCDRWeb/`. The page header includes the NOAA STAR logo and the text "NOAA STAR CENTER FOR SATELLITE APPLICATIONS AND RESEARCH". Below the header, the title "STAR Central Data Repository (SCDR) Web Portal" is displayed.

The main content area contains several sections for query configuration:

- Specify Attribute:** Platform: `NPP`, Product: `JPSSRR-CLOUDCOMP`
- Temporal Range (UTC):** Includes radio buttons for `Observation Date`, `Observation Day of Year`, `Ingestion Date`, and `Time Range`. The `Time Range` option is selected. Below this are fields for `Begin` and `End` dates and times, and a `Specify Time Range For` section with options for `Entire Range Of Days` and `Each Day`.
- Output Option:** Includes radio buttons for `Order by Date/Time` (Ascending, Descending, Neither) and a checked `Spatial Option` checkbox. A `Records Per Page` dropdown is set to `25`.

The bottom section features a map of the world with a blue polygon drawn over the contiguous United States (CONUS). The map includes labels for various countries and oceans. A red dashed box highlights the `Spatial Option` checkbox, and another red dashed box highlights the polygon on the map. Red arrows point from the text on the left to these elements.

At the bottom of the page, there is a `Search` button, a `Reset` button, and a status message: "Available Datasets in SCDR as 2:00 AM, 2019-06-18 (EST)".

# How Do I Use SCDR? (Web Portal Query)

Now only 23 granules over the CONUS are returned!

The screenshot displays the STAR Central Data Repository web portal. The browser address bar shows the URL `rhw9120.star1.nesdis.noaa.gov/SCDRWeb/`. The page features a search bar and a "Query Results" section with a table of data. The table has columns for "Directory", "Name", "Size", and "Begin Date/Time". All 23 rows in the table are selected, indicated by checked checkboxes in the "Directory" column. The "Name" column contains identifiers for JRR-CloudDCOMP files, such as `JRR-CloudDCOMP_v2r0_npp_s201906171545058_e201906171546300_c201906171620140.nc`. The "Size" column shows file sizes ranging from 18.6 MB to 30.0 MB. The "Begin Date/Time" column shows timestamps from 2019-06-17 15:45:05+00 to 2019-06-17 22:29:04+00. At the bottom of the page, there are "Submit" and "Close" buttons, and a status bar indicating "Page 1 of 1" and "Displaying files 1 - 23 of 23".

Directory	Name	Size	Begin Date/Time
<input checked="" type="checkbox"/>	/data/scdr040/v2HVBg0ARQG0XmQeYiNDzQSS/	JRR-CloudDCOMP_v2r0_npp_s201906171545058_e201906171546300_c201906171620140.nc	30.0 MB 2019-06-17 15:45:05+00
<input checked="" type="checkbox"/>	/data/scdr043/YCSm750RcaYdXCIPa7NwQSS/	JRR-CloudDCOMP_v2r0_npp_s201906171726060_e201906171727302_c201906171809170.nc	28.2 MB 2019-06-17 17:26:06+00
<input checked="" type="checkbox"/>	/data/scdr043/YCSm750RcaYdXCIPa7NwQSS/	JRR-CloudDCOMP_v2r0_npp_s201906171724406_e201906171726048_c201906171807410.nc	25.3 MB 2019-06-17 17:24:40+00
<input checked="" type="checkbox"/>	/data/scdr042/9zDvmeHTLmElicXrPBpk3wSS/	JRR-CloudDCOMP_v2r0_npp_s201906171723152_e201906171724394_c201906171809070.nc	28.4 MB 2019-06-17 17:23:15+00
<input checked="" type="checkbox"/>	/data/scdr042/9zDvmeHTLmElicXrPBpk3wSS/	JRR-CloudDCOMP_v2r0_npp_s201906171727314_e201906171728556_c201906171809450.nc	29.6 MB 2019-06-17 17:27:31+00
<input checked="" type="checkbox"/>	/data/scdr042/9zDvmeHTLmElicXrPBpk3wSS/	JRR-CloudDCOMP_v2r0_npp_s201906171720244_e201906171721486_c201906171807410.nc	18.6 MB 2019-06-17 17:20:24+00
<input checked="" type="checkbox"/>	/data/scdr040/v2HVBg0ARQG0XmQeYiNDzQSS/	JRR-CloudDCOMP_v2r0_npp_s201906171721498_e201906171723140_c201906171809110.nc	22.3 MB 2019-06-17 17:21:49+00
<input checked="" type="checkbox"/>	/data/scdr041/KRqXq06R5CzQKkSzoqRlwSS/	JRR-CloudDCOMP_v2r0_npp_s201906171908316_e201906171909558_c201906171947500.nc	23.6 MB 2019-06-17 19:08:31+00
<input checked="" type="checkbox"/>	/data/scdr041/KRqXq06R5CzQKkSzoqRlwSS/	JRR-CloudDCOMP_v2r0_npp_s201906171907062_e201906171908304_c201906171947330.nc	28.1 MB 2019-06-17 19:07:06+00
<input checked="" type="checkbox"/>	/data/scdr041/KRqXq06R5CzQKkSzoqRlwSS/	JRR-CloudDCOMP_v2r0_npp_s201906171902500_e201906171904142_c201906171946190.nc	26.8 MB 2019-06-17 19:02:50+00
<input checked="" type="checkbox"/>	/data/scdr041/KRqXq06R5CzQKkSzoqRlwSS/	JRR-CloudDCOMP_v2r0_npp_s201906171905408_e201906171907050_c201906171947080.nc	27.0 MB 2019-06-17 19:05:40+00
<input checked="" type="checkbox"/>	/data/scdr041/KRqXq06R5CzQKkSzoqRlwSS/	JRR-CloudDCOMP_v2r0_npp_s201906171859592_e201906171901234_c201906171945220.nc	24.0 MB 2019-06-17 18:59:59+00
<input checked="" type="checkbox"/>	/data/scdr041/KRqXq06R5CzQKkSzoqRlwSS/	JRR-CloudDCOMP_v2r0_npp_s201906171901246_e201906171902488_c201906171945300.nc	24.4 MB 2019-06-17 19:01:24+00
<input checked="" type="checkbox"/>	/data/scdr042/9zDvmeHTLmElicXrPBpk3wSS/	JRR-CloudDCOMP_v2r0_npp_s201906171904154_e201906171905396_c201906171947100.nc	29.1 MB 2019-06-17 19:04:15+00
<input checked="" type="checkbox"/>	/data/scdr043/YCSm750RcaYdXCIPa7NwQSS/	JRR-CloudDCOMP_v2r0_npp_s201906172046392_e201906172048034_c201906172128100.nc	24.7 MB 2019-06-17 20:46:39+00
<input checked="" type="checkbox"/>	/data/scdr043/YCSm750RcaYdXCIPa7NwQSS/	JRR-CloudDCOMP_v2r0_npp_s201906172045138_e201906172046380_c201906172128070.nc	26.4 MB 2019-06-17 20:45:13+00
<input checked="" type="checkbox"/>	/data/scdr041/fHglv7IHSmCsUEHToaoStASS/	JRR-CloudDCOMP_v2r0_npp_s201906172049300_e201906172050542_c201906172128460.nc	25.8 MB 2019-06-17 20:49:30+00
<input checked="" type="checkbox"/>	/data/scdr041/fHglv7IHSmCsUEHToaoStASS/	JRR-CloudDCOMP_v2r0_npp_s201906172042248_e201906172043472_c201906172127030.nc	21.5 MB 2019-06-17 20:42:24+00
<input checked="" type="checkbox"/>	/data/scdr042/oJo1iY8PTQKOSBeZebOMOGSS/	JRR-CloudDCOMP_v2r0_npp_s201906172040594_e201906172042236_c201906172126480.nc	25.1 MB 2019-06-17 20:40:59+00
<input checked="" type="checkbox"/>	/data/scdr043/YCSm750RcaYdXCIPa7NwQSS/	JRR-CloudDCOMP_v2r0_npp_s201906172043484_e201906172045126_c201906172127280.nc	23.9 MB 2019-06-17 20:43:48+00
<input checked="" type="checkbox"/>	/data/scdr041/fHglv7IHSmCsUEHToaoStASS/	JRR-CloudDCOMP_v2r0_npp_s201906172048046_e201906172049288_c201906172128400.nc	26.9 MB 2019-06-17 20:48:04+00
<input checked="" type="checkbox"/>	/data/scdr040/O62HBwmeTZRgh8WAOgFbgSS/	JRR-CloudDCOMP_v2r0_npp_s201906172227394_e201906172229036_c201906172309170.nc	28.0 MB 2019-06-17 22:27:39+00
<input checked="" type="checkbox"/>	/data/scdr042/oJo1iY8PTQKOSBeZebOMOGSS/	JRR-CloudDCOMP_v2r0_npp_s201906172229048_e201906172230290_c201906172310460.nc	25.2 MB 2019-06-17 22:29:04+00

# How Do I Use SCDR? (Linux command)

- The Linux command `/data/starfs1/bin/scdr-files` can be used for database queries from the Linux command line or a script
- `/data/starfs1/bin/scdr-files -h(elp)` returns documentation.
- Some useful options (but not all of them):
  - `-available` ← summary report of EVERYTHING in the database
  - `-t <type>` ← collection type (from the 1st column in the summary report)
  - `-stime "YYYY-MM-DD at HH:MM:SS UTC"` ← start time of query
  - `-etime "YYYY-MM-DD at HH:MM:SS UTC"` ← end time of query
  - `-satname "satellite name"` ← satellite name
  - `-a "POLYGON ((LAT.1 LON.1, LAT.2 LON.2, LAT.3 LON.3, ...LAT.1, LON.1))"` ← granules only within specified polygon

# How Do I Use SCDR? (Linux command)

GOES-16 ABI Level 2 RRQPEF product

Search period starts at 1500 UTC 21 May 2019

```
/data/starfs1/bin/scdr-files -t ABI-L2-RRQPEF-G16  
-stime "2019-05-21 15:00 UTC" -etime "2019-05-21  
15:59 UTC"
```

Search period ends at 1559 UTC 21 May 2019

# How Do I Use SCDR? (Linux command)

```
bob.kuligowski@rhw1061:/data/data081/bobk/ABI/Scripts
bob.kuligowski@rhw1061: /data/starfsl/bin/scdr-files -t ABI-L2-RRQPEF-G16 -stime "2019-05-21 15:00 UTC" -etime "2019-05-21 15:59 UTC"
/data/scdr044/G-16/uu8ifN1sSFa5E7IvUZn1MwSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411450374_e20191411500082_c20191411500162.nc
/data/scdr046/G-16/4EGD5RIDQG60PpojaWZYLwSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411500374_e20191411510082_c20191411510164.nc
/data/scdr046/G-16/4EGD5RIDQG60PpojaWZYLwSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411510374_e20191411520082_c20191411520215.nc
/data/scdr044/G-16/67ASMNerRLusqMzpS5W66ASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411520374_e20191411530082_c20191411530165.nc
/data/scdr045/G-16/sSe6TyrdSj6CL2W3SvAbNASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411530374_e20191411540082_c20191411540167.nc
/data/scdr047/G-16/Sk8BS4HfQ36PguIBc8G05wSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411540374_e20191411550082_c20191411550166.nc
/data/scdr045/G-16/sSe6TyrdSj6CL2W3SvAbNASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411550374_e20191411600082_c20191411600164.nc
bob.kuligowski@rhw1061: █
```

- You can then copy the files you need to your directory (or softlink them if you're not going to use them more than once)
- To automate this, have a script make a query, dump the results to a text file, then use the text file as a file list for copying.



# How Do I Use SCDR? (Linux command)

Data from NPP only

Search period starts at  
0000 UTC 17 June 2019

JPSS Daytime DCOMP  
cloud properties

```
/data/starfs1/bin/scdr-files -t JPSSRR-CLOUDDCOMP  
-satname "npp" -stime "2019-06-17 00:00 UTC"  
-etime "2019-06-17 23:59 UTC" -a "POLYGON ((25.0 -  
125.0, 49.0 -125.0, 49.0 -65.0, 25.0 -65.0, 25.0 -  
125.0))"
```

Search period starts at  
2359 UTC 17 June 2019

Search for granules intersecting  
25-50°N, 125-65°W.

# How Do I Use SCDR? (API)

- SCDR RESTful Web service allows `wget` or `curl` or similar command-line tools to make database queries in place of the `scdr-files` command
- Documentation is at <http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/help.html>
- It allows output in HTML, XML or JSON format in addition to plain text:
  - `Content-Type: text/plain` (default) ← plain text
  - `Content-Type: text/html` ← HTML
  - `Content-Type: application/xml` ← XML
  - `Content-Type: application/json` ← JSON

# How Do I Use SCDR? (API)

- The option syntax for using the API is a bit different from `scdr-files`:
  - `type=<type>` ← dataset name in SCDR database
  - `stime=YYYY-MM-DDTTHH:MM:SS` ← start time of query
  - `etime=YYYY-MM-DDTTHH:MM:SS` ← end time of query
  - `satname=<satname>` ← satellite name in SCDR database
  - `since=YYYY-M(M)-DDTTHH:MM:SS` ← query from start time until now
  - `area=POLYGON (LAT.1 LON.1, LAT.2 LON.2 LAT.3 LON.3, ...LAT.1 LON.1)` ← polygon encompassing search area (any granules that even partially intersect the polygon will be selected)

# How Do I Use SCDR? (API)

- Sample query of file types in SCDR using `wget`:

Write output as plain (ASCII) text

Write output to result.txt (default is to write to a file called `list`)

```
wget --header "Content-Type: text/plain" -O ./result.txt  
"http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/service/scdr-  
files/list"
```

url containing the list of SCDR file types

# How Do I Use SCDR? (API)

- Sample query of file types in SCDR using `wget`:

```
bob.kuligowski@rhw1061:/data/data081/bobk/ABI/Scripts
bob.kuligowski@rhw1061: wget --header "Content-Type: text/plain" -O ./result.txt "http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/service/scdr-files/list"
--2019-06-11 18:40:54-- http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/service/scdr-files/list
Resolving rhw9120.star1.nesdis.noaa.gov... 10.2.7.81
Connecting to rhw9120.star1.nesdis.noaa.gov|10.2.7.81|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [text/plain]
Saving to: './result.txt'

[ <=> ] 119,536 --.-K/s in 0.001s

2019-06-11 18:40:54 (97.7 MB/s) - './result.txt' saved [119536]

bob.kuligowski@rhw1061: cat result.txt
Type, Description, Files, Volumn (byte), Begin Date, End Date, Rolling Days
ABI-I-L2-ACHAC-G16,"GOES-R L2 Intermediate Cloud Top Height (CONUS) product",25851,105508420812,"2019-02-10 23:57:14+00","2019-05-11 23:59:06+00",90
ABI-I-L2-ACHAC-G17,"GOES-S L2 Intermediate Cloud Top Height (CONUS) product",25795,130210260929,"2019-02-10 23:57:19+00","2019-05-11 23:58:57+00",90
ABI-I-L2-ACHAF-G16,"GOES-R L2 Intermediate Cloud Top Height full disk product",10650,281226852996,"2019-02-11 00:00:31+00","2019-05-12 00:00:03+00",90
ABI-I-L2-ACHAF-G17,"GOES-S L2 Intermediate Cloud Top Height full disk product",10154,278500792928,"2019-02-11 00:00:38+00","2019-05-11 23:59:41+00",90
ABI-I-L2-ACHAM1-G16,"GOES-R L2 Intermediate Cloud Top Height mesoscale mode 1 product",129170,52729327045,"2019-02-11 00:00:22+00","2019-05-11 23:59:42+00",90
ABI-I-L2-ACHAM1-G17,"GOES-S L2 Intermediate Cloud Top Height mesoscale mode 1 product",128965,46847868788,"2019-02-10 23:59:27+00","2019-05-11 23:59:33+00",90
ABI-I-L2-ACHAM2-G16,"GOES-R L2 Intermediate Cloud Top Height mesoscale mode 2 product",129123,50532576827,"2019-02-10 23:59:52+00","2019-05-11 23:59:12+00",90
ABI-I-L2-ACHAM2-G17," GOES-S L2 Intermediate Cloud Top Height mesoscale mode 2 product ",128700,41820182798,"2019-02-10 23:59:51+00","2019-05-11 23:59:57+00",90
ABI-I-L2-ACHC-G16,"GOES-R L2 Intermediate Cloud Top Height (CONUS) product",25851,1079509849064,"2019-02-10 23:57:14+00","2019-05-11 23:59:06+00",90
ABI-I-L2-ACHC-G17,"GOES-S L2 Intermediate Cloud Top Height (CONUS) product",25795,1369679423644,"2019-02-10 23:57:19+00","2019-05-11 23:58:57+00",90
ABI-I-L2-ACHF-G16,"GOES-R L2 Intermediate Cloud Top Height full disk product",10651,2878311056096,"2019-02-11 00:00:31+00","2019-05-12 00:00:03+00",90
ABI-I-L2-ACHF-G17,"GOES-S L2 Intermediate Cloud Top Height full disk product",10152,2833786435120,"2019-02-11 00:00:38+00","2019-05-11 23:59:41+00",90
ABI-I-L2-ACHM1-G16,"GOES-R L2 Intermediate Cloud Top Temperature mesoscale mode 1 product",129171,519609815439,"2019-02-11 00:00:22+00","2019-05-11 23:59:42+00",90
ABI-I-L2-ACHM1-G17,"GOES-S L2 Intermediate Cloud Top Temperature mesoscale mode 1 product",128963,443468169619,"2019-02-10 23:59:27+00","2019-05-11 23:59:33+00",90
ABI-I-L2-ACHM2-G16,"GOES-R L2 Intermediate Cloud Top Temperature mesoscale mode 2 product",129123,495698613595,"2019-02-10 23:59:52+00","2019-05-11 23:59:12+00",90
```

# How Do I Use SCDR? (API)

- Same GOES-16 RRQPE example as before, but using `wget`:

url for querying specific datasets

Write output as plain (ASCII) text

Write output to `SCDRlist.txt` (default is to write to a file called `list`)

```
wget --header "Content-Type: text/plain" -O ./SCDRlist.txt  
"http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/service/scdr-  
files/query?type=ABI-L2-RRQPEF-G16&stime=2019-5-21T15:00:00  
&etime=2019-5-21T15:59:00"
```

End query at 1559 UTC 21 May 2019

Get G16 RRQPE files

Start query at 1500 UTC 21 May 2019

# How Do I Use SCDR? (API)

- Same GOES-16 RRQPE example as before, but using `wget`:

```
bob.kuligowski@rhwl061:/data/data081/bobk/ABI/Scripts
bob.kuligowski@rhwl061:~$ wget --header "Content-Type: text/plain" -O ./SCDRlist.txt "http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/service/scdr-files/query?type=ABI-L2-RRQPEF-G16&stime=2019-5-21T15:00:00&etime=2019-5-21T15:59:00"
--2019-06-11 18:51:00-- http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/service/scdr-files/query?type=ABI-L2-RRQPEF-G16&stime=2019-5-21T15:00:00&etime=2019-5-21T15:59:00
Resolving rhw9120.star1.nesdis.noaa.gov... 10.2.7.81
Connecting to rhw9120.star1.nesdis.noaa.gov|10.2.7.81|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 833 [text/plain]
Saving to: './SCDRlist.txt'

100%[=====>] 833  --.-K/s  in 0s

2019-06-11 18:51:01 (104 MB/s) - './SCDRlist.txt' saved [833/833]

bob.kuligowski@rhwl061:~$ cat SCDRlist.txt
/data/scdr044/G-16/uu8ifN1sSFa5E7IvUZN1MwSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411450374_e20191411500082_c20191411500162.nc
/data/scdr046/G-16/4EGD5RIDQG60PpojaWZYLWSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411500374_e20191411510082_c20191411510164.nc
/data/scdr046/G-16/4EGD5RIDQG60PpojaWZYLWSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411510374_e20191411520082_c20191411520215.nc
/data/scdr044/G-16/67ASMNNetRLusqMzpSSW6GASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411520374_e20191411530082_c20191411530165.nc
/data/scdr045/G-16/sSe6TyrdSj6CL2W3SvAbNASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411530374_e20191411540082_c20191411540167.nc
/data/scdr047/G-16/Sk8BS4HfQ36PguIBc8G05wSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411540374_e20191411550082_c20191411550166.nc
/data/scdr045/G-16/sSe6TyrdSj6CL2W3SvAbNASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411550374_e20191411600082_c20191411600164.nc
bob.kuligowski@rhwl061:~$
```

(Who wants to type all that, anyway? So...)

# How Do I Use SCDR? (API)

- Same GOES-16 RRQPE example again, but using `wget` in a script:

```
bob.kuligowski@rhw1061:/data/data081/bobk/ABI/Scripts
bob.kuligowski@rhw1061: cat test wget.sh
url=http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/service/scdr-files/query
type=ABI-L2-RRQPEF-G16
stime=2019-5-21T15:00:00
etime=2019-5-21T15:59:00
wget --header "Content-Type: text/plain" -O ./SCDRlist.txt "${url}?type=${type}&stime=${stime}&etime=${etime}"
cat SCDRlist.txt
bob.kuligowski@rhw1061:
bob.kuligowski@rhw1061: ./test_wget.sh
--2019-06-11 18:56:53-- http://rhw9120.star1.nesdis.noaa.gov/SCDRWeb/service/scdr-files/query?type=ABI-L2-RRQPEF-G16&sti
me=2019-5-21T15:00:00&etime=2019-5-21T15:59:00
Resolving rhw9120.star1.nesdis.noaa.gov... 10.2.7.81
Connecting to rhw9120.star1.nesdis.noaa.gov|10.2.7.81|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 833 [text/plain]
Saving to: "./SCDRlist.txt"

100%[=====>] 833      --.-K/s   in 0s

2019-06-11 18:56:53 (68.7 MB/s) - "./SCDRlist.txt" saved [833/833]

/data/scdr044/G-16/uu8ifN1sSFa5E7IvUZN1MwSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411450374_e20191411500082_c20191411500162.nc
/data/scdr046/G-16/4EGD5RIDQG60PpojaWZYLwSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411500374_e20191411510082_c20191411510164.nc
/data/scdr046/G-16/4EGD5RIDQG60PpojaWZYLwSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411510374_e20191411520082_c20191411520215.nc
/data/scdr044/G-16/67ASNetRLusqMzpS5W66ASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411520374_e20191411530082_c20191411530165.nc
/data/scdr045/G-16/sSe6TyrdSj6CL2W3SvAbNASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411530374_e20191411540082_c20191411540167.nc
/data/scdr047/G-16/Sk8BS4HfQ36PguIBc8G05wSS/OR_ABI-L2-RRQPEF-M6_G16_s20191411540374_e20191411550082_c20191411550166.nc
/data/scdr045/G-16/sSe6TyrdSj6CL2W3SvAbNASS/OR_ABI-L2-RRQPEF-M6_G16_s20191411550374_e20191411600082_c20191411600164.nc
bob.kuligowski@rhw1061: █
```



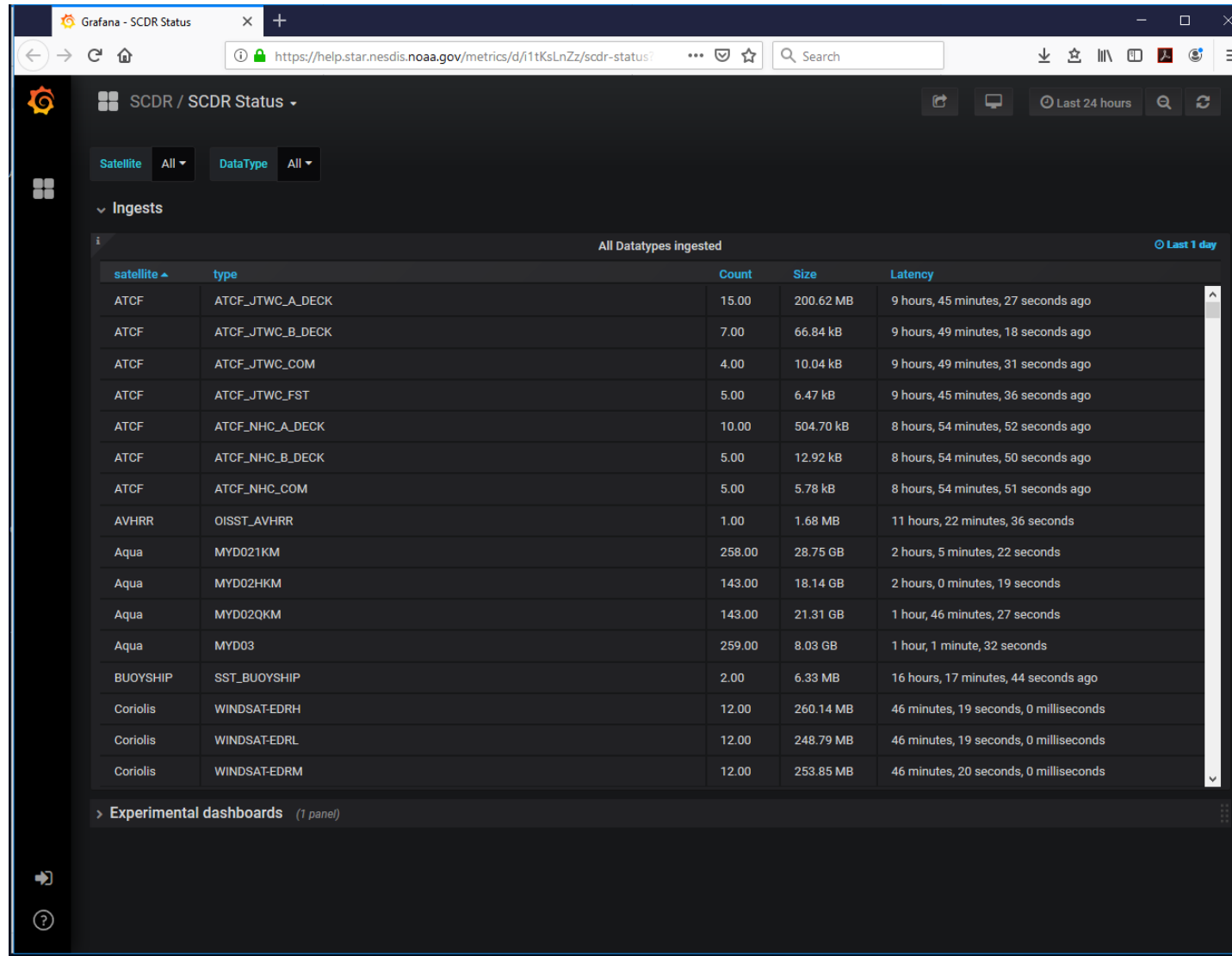
# So Which Approach Should I Use?

- `scdr-files` currently has more options than the RESTful API
- The longer-term plan is to focus development on the RESTful API and transition `scdr-files` to alias to it
  - This avoids parallel development paths (and the resulting redundant work)
  - It also minimizes the need to re-work existing scripts that use `scdr-files`
- Recommendations:
  - Try the RESTful API, but if it doesn't meet your needs, feel free to use (or keep on using) `scdr-files`
  - Give feedback on what features you would like to see added!

# How Do I Find Out the Latency of SCDR Data?

- You can use any of the methods on the previous sides to indirectly find out, but this dashboard provides a much more direct method:

<https://help.star.nesdis.noaa.gov/metrics/d/i1tKsLnZz/scdr-status?orgId=1>



The screenshot shows the Grafana SCDR Status dashboard. The dashboard title is "SCDR / SCDR Status". There are filters for "Satellite" (set to "All") and "DataType" (set to "All"). The main content is a table titled "All Datatypes ingested" with columns: "satellite", "type", "Count", "Size", and "Latency". The table lists various data sources and their corresponding metrics.

satellite	type	Count	Size	Latency
ATCF	ATCF_JTWC_A_DECK	15.00	200.62 MB	9 hours, 45 minutes, 27 seconds ago
ATCF	ATCF_JTWC_B_DECK	7.00	66.84 kB	9 hours, 49 minutes, 18 seconds ago
ATCF	ATCF_JTWC_COM	4.00	10.04 kB	9 hours, 49 minutes, 31 seconds ago
ATCF	ATCF_JTWC_FST	5.00	6.47 kB	9 hours, 45 minutes, 36 seconds ago
ATCF	ATCF_NHC_A_DECK	10.00	504.70 kB	8 hours, 54 minutes, 52 seconds ago
ATCF	ATCF_NHC_B_DECK	5.00	12.92 kB	8 hours, 54 minutes, 50 seconds ago
ATCF	ATCF_NHC_COM	5.00	5.78 kB	8 hours, 54 minutes, 51 seconds ago
AVHRR	OISST_AVHRR	1.00	1.68 MB	11 hours, 22 minutes, 36 seconds
Aqua	MYD021KM	258.00	28.75 GB	2 hours, 5 minutes, 22 seconds
Aqua	MYD02HKM	143.00	18.14 GB	2 hours, 0 minutes, 19 seconds
Aqua	MYD02QKM	143.00	21.31 GB	1 hour, 46 minutes, 27 seconds
Aqua	MYD03	259.00	8.03 GB	1 hour, 1 minute, 32 seconds
BUOYSHIP	SST_BUOYSHIP	2.00	6.33 MB	16 hours, 17 minutes, 44 seconds ago
Coriolis	WINDSAT-EDRH	12.00	260.14 MB	46 minutes, 19 seconds, 0 milliseconds
Coriolis	WINDSAT-EDRL	12.00	248.79 MB	46 minutes, 19 seconds, 0 milliseconds
Coriolis	WINDSAT-EDRM	12.00	253.85 MB	46 minutes, 20 seconds, 0 milliseconds

# How Do I Find Out the Latency of SCDR Data?

- You can also select specific satellites / data types to narrow down the list:

The screenshot shows a Grafana dashboard titled "SCDR / SCDR Status". The dashboard includes a filter section with "Satellite" set to "Metop-C" and "DataType" set to "AMSUA". Below this, a table titled "Metop-C Datatypes ingested" displays the following data:

satellite	type	Count	Size	Latency
Metop-C	AMSUA	16.00	28.11 MB	43 minutes, 39 seconds, 459 milliseconds

# How Do I Use SCDR Politely?

- Really large queries significantly degrade database performance
- The `s cdr-files` command has some built-in limits:
  - No requests without time bounds
  - Maximum time interval of 30 days
  - Requires specific data types (or file names, if known)
- Be as specific as possible in your requests, especially automated ones!

# How Are New Data Sets Added to SCDR?

- The STAR Data Management Group (chaired by yours truly) manages SCDR ingest and storage
- To add a new data set to SCDR, fill out a SCDR [Data Storage Request Form](#) (Google Survey) at least 24 hours before the DMG meeting at which it will be voted on (2<sup>nd</sup> and 4<sup>th</sup> Wednesday of every month).
  - Information requested includes justification for the request, expected repository duration and size, and data sources.

# Final thoughts..

- For any SCDR-related issues or questions, submit a STAR IT Help Desk Ticket or contact Weiguo Han at [Weiguo.Han@noaa.gov](mailto:Weiguo.Han@noaa.gov)
- We're always looking for ways to improve SCDR! I'll be sending out a survey soon asking for your thoughts on this.

Questions?

