

# CDAWeb Tutorial

This tutorial guides you through a typical CDAWeb session using TIMED GUVI parameters as example.

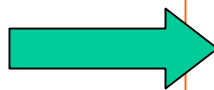
(1) Use your favorite internet browser to go to

<http://cdaweb.gsfc.nasa.gov/>

(2) Select “Public data from current .. space physics missions”

[http://cdaweb.gsfc.nasa.gov/cdaweb/istp\\_public/](http://cdaweb.gsfc.nasa.gov/cdaweb/istp_public/)

(3) Select spacecraft  
(instrument optional)



**Coordinated Data Analysis Web (CDAWeb)**

**Public data from current space physics missions**

The full CDAWeb data service with [multiple database views](#) directly supports graphics, digital listings and simultaneous multi-mission, multi-instrument selection and comparison of science data among a wide range of current space missions, including ACE, Cluster, Equator-S, FAST, Geotail, IMAGE, IMP-8, ISTP (Polar and Wind), Interball (Tail and Aurora), SAMPEX, SOHO and Ulysses. CDAWeb also supports data from geosynchronous satellites including GOES 6/7/8/9/10 and LANL, 1989/1990/1991/1994/1997; from ground-based facilities including CANOPUS, DARN, the Finnish Meteorological Institute and SESAME; from older space missions including Dynamics Explorer (DE-1, DE-2), Hawkeye, and ISIS; and for key data dedicated to use by specific science teams, including the Cluster Prime Parameters.

Please select one or more data sources, OR one or more instrument types, OR a combination of data sources and instrument types from those data sources, and then click "Submit".

**CDAWeb Source Selector Form**

◆ Select one or more Sources:

- ACE
- Cluster
- DMSP (selected links only)
- Equator-S
- FAST
- Genesis
- Geotail
- IMAGE
- IMP8
- Interball
- Interball Auroral Probe
- Interball Ground-Based
- OMNI (Merged IAU IP Data)
- Polar
- SAMPEX
- SOHO
- TIMED
- Ulysses
- Wind
- Geosynchronous Investigations
- Ground-Based Investigations

◆ Select one or more Instrument Types:

- Electric Fields (space)
- Engineering
- Ephemeris
- Imaging and Remote Sensing (ITM/Earth)
- Imaging and Remote Sensing (Magnetosphere/Earth)
- Imaging and Remote Sensing (Sun)
- Magnetic Fields (space)
- Particles (space)
- Plasma and Solar Wind
- Radio and Plasma Waves (space)
- Ground-Based HF-Radars
- Ground-Based Imagers
- Ground-Based Magnetometers, Riometers, Sounders
- Ground-Based VLF/ELF/UHF, Photometers

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◆ [Data Inventory: Graphs \(for this data view and by spacecraft\)](#) NEW

◆ [CDAWeb Usage Statistics](#)

◆ [CDAWeb mirror site at RAL/UK \(Space Physics public data\)](#)

◆ [CDAWeb mirror site at MPE-Garching/Germany \(partial\)](#)

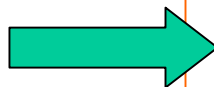
◆ [CDAWeb mirror site at ISAS/Japan \(complete\)](#)

◆ [Anonymous FTP access to the public CDAWeb data holdings](#)

◆ [Home Pages for ISTP Investigations](#)

[CDAWeb Security and Privacy Statement](#)

(4) SUBMIT



## CDAWeb Data Selector

As needed to select the datasets of actual interest to you:

- manually check/uncheck one or more data sets from the list below AND/OR
- [Click here to CLEAR All checkboxes, AND/OR](#)
- [Click here to SELECT All checkboxes](#)

For any special notes on usage of a given data set, please click on that data set name below.

To go forward to plot, list and retrieve your selected data, press the "submit" button directly below or at the bottom of this page.

Submit

[TIMED\\_R0\\_SABER](#): Link to SABER online data and information at NASA Langley - James Russell III (Hampton University)

[TIMED\\_R0\\_SEE](#): Link to SEE online data and information at LASP, U Colorado - Thomas Woods (University of Colorado)

[TIMED\\_R0\\_TIDI](#): Link to TIDI online data and information at U. Michigan - Timothy Killeen (NCAR)

[TIMED\\_LICDISK\\_GUVI](#): TIMED GUVI Level 1C data. - Andrew Christensen (Aerospace)

Submit Reset

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(5) Clear all checkboxes



(6) Select data of interest



(7) SUBMIT



## CDAWeb Data Explorer

Select start and stop times from which to GET or PLOT data:

Use pre-defined start/stop times

Bastille Day Event 2000/07/14 00:00:00 2000/07/17 00:00:00

Use custom start/stop times

Start: 2003/10/22 10:00:00 (YYYY/MM/DD HH:MM:SS)

Stop: 2003/10/22 22:00:00 (YYYY/MM/DD HH:MM:SS)

Select an activity:

Plot Data: select one or more variables from list below and press submit.

List Data (ASCII): select one or more variables from list below and press submit. (Works best for <31 days)

Download original CDFs: press submit button to retrieve list of files. (Max. 200 days - use [FTP site](#) for larger requests)

Create CDFs for download: select one or more variables from the list below and press submit. **NEW**  
Get [CDFX](#) - IDL GUI plotting/listing toolkit software. To be used with either the daily or "created" CDF files available above. **NEW**

Plotting Options

Use coarse noise filtering to remove values outside 3 deviations from mean of all values in the plotted time interval.

Double the Y-axis height for time-series and spectrogram plots.

Combine all time-series and spectrogram plots, for all requested datasets, into one plot file. **NEW**

Submit Reset

Variable parameters (required for Listing and Plotting data only)

### TIMED\_LICDISK\_GUVI

TIMED GUVI Level 1C data. - Andrew Christensen (Aerospace)

Available dates: 2002/12/31 22:24:08 - 2004/04/11 23:24:31

(Continuous coverage not guaranteed - check the inventory graph for coverage)

[Mercator Projection by Orbit, Log10 Scaling] H Ly-alpha (1216 A) Intensities [NO LISTINGS]

-----> O (1304 A)

-----> O (1356 A)

-----> LBH1 (1400-1500 A)

-----> LBH2 (1650-1800 A)

[Mercator Projection by Orbit, Linear Scaling] H Ly-alpha (1216 A) Intensities [NO LISTINGS]

-----> O (1304 A)

-----> O (1356 A)

-----> LBH1 (1400-1500 A)

-----> LBH2 (1650-1800 A)

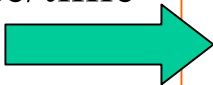
[Movie, Mercator Projection by Orbit, Log10 Scaling] H Ly-alpha (1216 A) Intensities

-----> O (1304 A)

-----> O (1356 A)

-----> LBH1 (1400-1500 A)

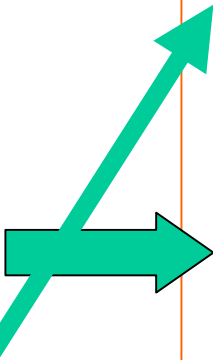
(8) Enter date/time period:



2003/10/22 10:00:00

2003/10/22 22:00:00

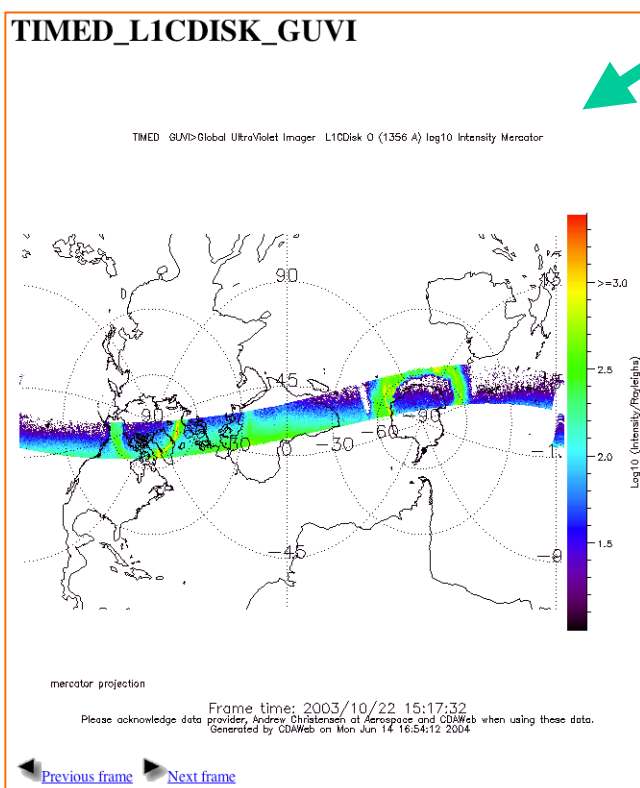
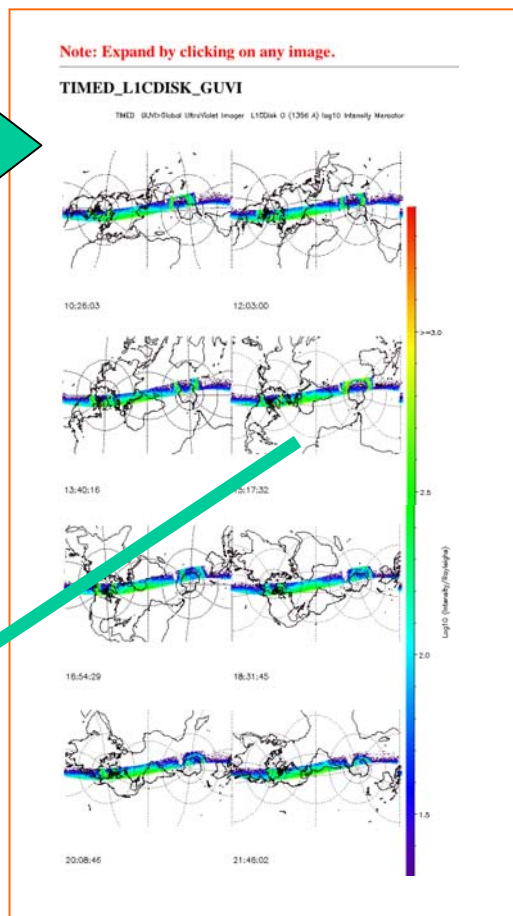
(9) Select variable(s)



(10) SUBMIT

(11) CDAWeb displays the thumbnail images for the selected time period (our example will take about 1 minute to generate).

(12) Click on thumbnail to get full-size image in separate window.



(13) Use the browser BACK button to return to the CDAWeb DATA EXPLORER – change the date/time and/or variable selection and SUBMIT to generate new CDAWeb plot(s).

# CDAWeb Data Explorer

Select start and stop times from which to GET or PLOT data:

Use pre-defined start/stop times

Bastille Day Event 2000/07/14 00:00:00 2000/07/17 00:00:00

Use custom start/stop times

Start: 2003/10/22 10:00:00 (YYYY/MM/DD HH:MM:SS)

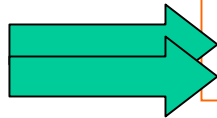
Stop: 2003/10/22 15:00:00 (YYYY/MM/DD HH:MM:SS)

- [Intensities for all Across-Track Positions, Log10 Scaling] H Ly-alpha (1216 A)  
-----> O (1304 A)  
-----> O (1356 A)  
-----> LBH1 (1400-1500 A)  
-----> LBH2 (1650-1800 A)
- [Intensities for all Across-Track Positions, Linear Scaling] H Ly-alpha (1216 A)  
-----> O (1304 A)  
-----> O (1356 A)  
-----> LBH1 (1400-1500 A)  
-----> LBH2 (1650-1800 A)
- [Intensities for 7 Across-Track Positions, Linear Scaling] H Ly-alpha (1216 A)  
-----> O (1304 A)  
-----> O (1356 A)  
-----> LBH1 (1400-1500 A)  
-----> LBH2 (1650-1800 A)
- Nadir geographic latitude of GUVI sweep as function of time (plot)
- Nadir geographic longitude of GUVI sweep as function of time (plot)
- Nadir geomagnetic latitude of GUVI sweep as function of time (plot)
- Nadir geomagnetic longitude of GUVI sweep as function of time (plot)
- [DO NOT USE] Detector as function of time
- [DO NOT USE] Slit as function of time
- TIME AXIS LABEL: Nadir geographic latitude of GUVI sweep
- TIME AXIS LABEL: Nadir geographic longitude of GUVI sweep
- TIME AXIS LABEL: Nadir geomagnetic latitude of GUVI sweep
- TIME AXIS LABEL: Nadir geomagnetic longitude of GUVI sweep

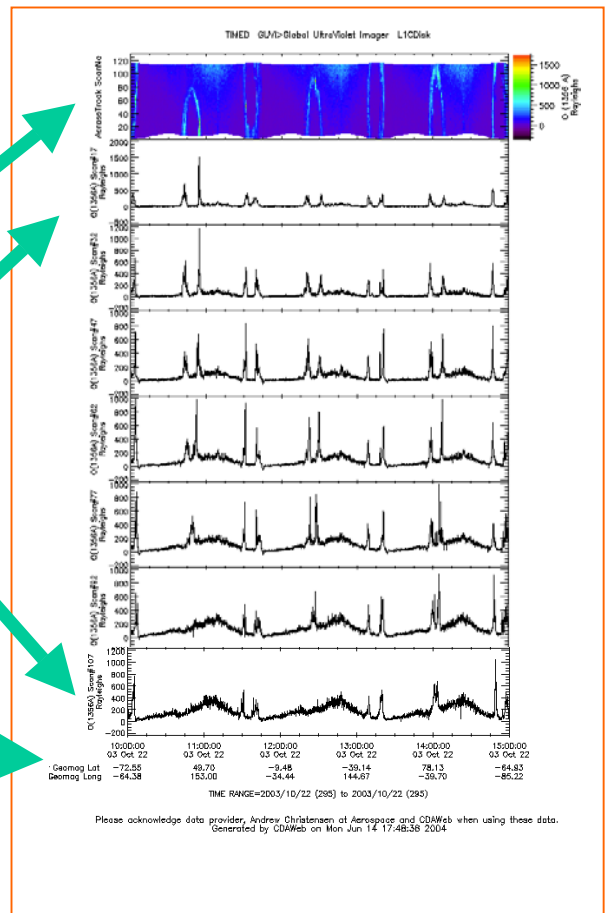
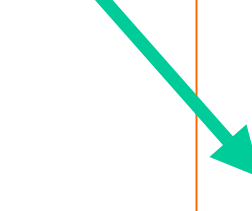
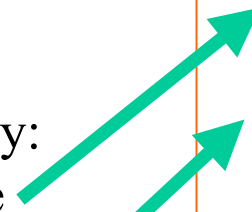
(14) Change stop time to 15:00



(15) Select variables: Along-track image, Along-track line plots at 7 cross-track positions, Geomagnetic latitude and longitude (nadir) as x-axis labels



(16) CDAWeb display: 1st panel is the image plot of along-track intensities, the next 7 panels show the along-track intensities at 7 selected across-track positions. The Nadir geomagnetic latitude and longitude are listed on the x-axis.



(17) Use the BACK button to return to CDAWeb DATA EXPLORER

(18) Select the maximally allowed time period of 2 days:  
2003/10/21 22:00:00  
2003/10/23 21:59:00

(19) Select the movie parameter of interest

(20) SUBMIT

(21) It takes about 5 minute to generate this MPEG movie

## CDAWeb Data Explorer

### Select start and stop times from which to GET or PLOT data:

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Use custom start/stop times

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Stop: 2003/10/23 21:59:00 (YYYY/MM/DD HH:MM:SS)

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Create CDFs for download: select one or more variables from the list below and press sub

Get [CDFX](#) - IDL GUI plotting/listing toolkit software. To be used with either the daily or

### Plotting Options

Use coarse noise filtering to remove values outside 3 deviations from mean of all values in

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Combine all time-series and spectrogram plots, for all requested datasets, into one plot file.

Submit Reset

### Variable parameters (required for Listing and Plotting data only)

## TIMED\_L1CDISK\_GUVI

TIMED GUVI Level 1C data. - Andrew Christensen (Aerospace)

Available dates: 2002/12/31 22:24:08 - 2004/04/11 23:24:31

(Continuous coverage not guaranteed - check the inventory graph for coverage)

[Mercator Projection by Orbit, Log10 Scaling] H Ly-alpha (1216 A) Intensities  
 - - - - -> O (1304 A)  
 - - - - -> O (1356 A)  
 - - - - -> LBH1 (1400-1500 A)  
 - - - - -> LBH2 (1650-1800 A)  
 [Mercator Projection by Orbit, Linear Scaling] H Ly-alpha (1216 A) Intensities  
 - - - - -> O (1304 A)  
 - - - - -> O (1356 A)  
 - - - - -> LBH1 (1400-1500 A)  
 - - - - -> LBH2 (1650-1800 A)  
 [Movie, Mercator Projection by Orbit, Log10 Scaling] H Ly-alpha (1216 A) Inte  
 - - - - -> O (1304 A)  
 - - - - -> O (1356 A)  
 - - - - -> LBH1 (1400-1500 A)  
 - - - - -> LBH2 (1650-1800 A)

## TIMED\_L1CDISK\_GUVI

[MPEG Movie](#)

[notes and caveats](#)

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