

# Internet Resources:

<http://IRImodel.org>

IRI homepage

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

NASA/CDAWeb satellite data

<ftp://spdf.gsfc.nasa.gov/pub/data/>

NASA/SPDF satellite data

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

Satellite orbits and coincidence

<http://omniweb.gsfc.nasa.gov/ftpbrowser/atmoweb.html>    SPDF ATMOWeb

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

CCMC theoretical models  
working on advanced display  
options

# CDAWeb

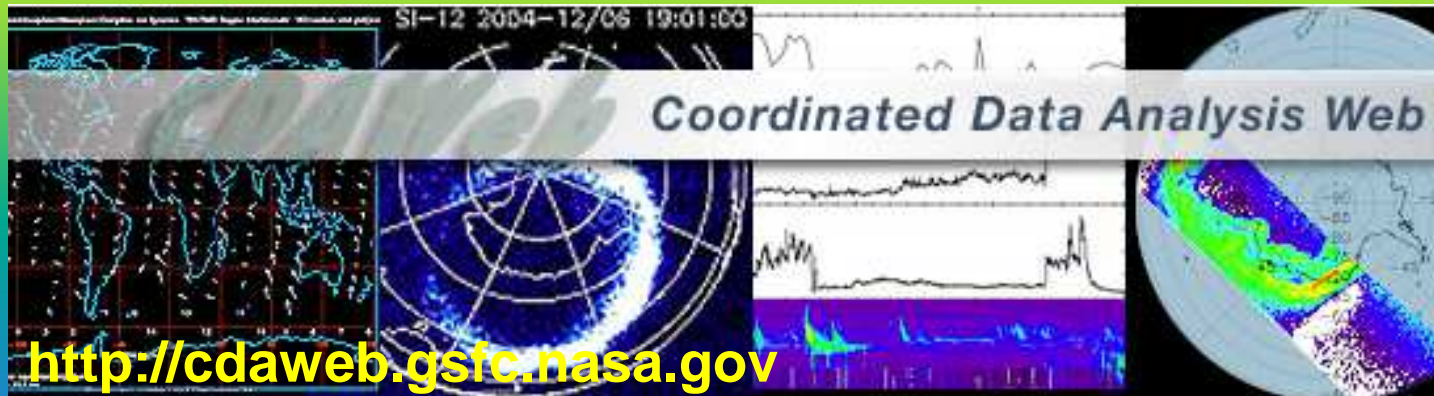
## Coordinate Data Analysis Workshop

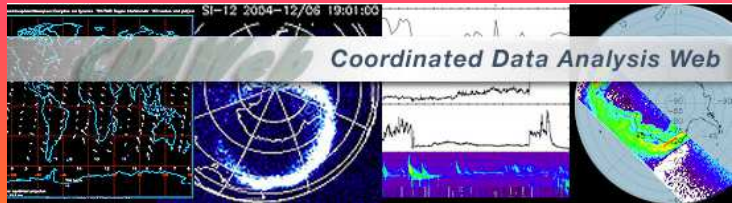
Simultaneous data from most instruments on most current non-solar heliospheric NASA and related missions 1992-2005  
Plus various ground-based experiments and selected holdings from some older missions including **DE-1, -2** and **ISIS-1, -2**  
Plus **OMNI** Combined, Definitive, 1AU, 1-minute, 15-minute and 1-hour IMF and Plasma data  
Most recent expansion by **THEMIS, GPS, C/NOFS**

Easy data browse and display, user-specified time and parameter subsets with graphics, listings, file download (ASCII and CDF)

CDAWLib is the collection of IDL routines that powers CDAWeb displays

Services are also available by CDAS webservices API and data directories by direct FTP





## Coordinated Data Analysis Web

### CDAWeb

+ [CDAWEB HOME](#)

+ [FEEDBACK](#)

+ [ABOUT CDAWEB](#)

#### CDAWeb Mirror Site

+ [RAL/UK](#)

#### Guides and Tutorials

+ [CDAWeb help](#)

+ [Internet browser help](#)

#### CDAWeb Plus Java Interface

+ [CDAWeb Plus](#)

#### Additional Services

+ [Alternative Data Access Methods](#)

+ [Web Service Access to CDAWeb](#)

+ [HTTP & Anonymous FTP access to public CDAWeb database](#)

+ [Autoplot.org \(non-NASA\) interface to public CDAWeb database](#)

+ [Data Format Translations](#)

#### Additional Resources

+ [Usage Statistics](#)

+ [GIFWALK Data and Orbit plots](#)

+ [Space Physics Use of CDF](#)

+ [Data Inventory Graph](#)

+ [SPDF Home Page](#)

- ACE
- ARTEMIS
- Alouette
- Apollo
- CNOFS
- CRRES
- Cluster
- DE
- DMSP (selected links only)
- Equator-S
- FAST
- GOES
- GPS
- Genesis
- Geotail
- Hawkeye
- Helios
- IMAGE
- IMP (All)
- ISEE
- ISIS
- ISS
- Interball
- LANL
- MESSENGER
- Mariner
- NOAA
- OMNI (Combined 1AU IP Data; Magnetic and Solar Indices)
- Pioneer
- Polar
- ROCSAT-1(FORMOSAT-1)/IPEI
- SAMPEX
- SNOE
- SOHO
- STEREO
- THEMIS
- TIMED
- TWINS
- Ulysses
- Voyager
- Wind
- Ground-Based Investigations
- Activity Indices
- Electric Fields (space)
- Engineering
- Ephemeris
- Gamma and X-Rays
- Imager (space)
- Imaging and Remote Sensing (ITM/Earth)
- Imaging and Remote Sensing (Magnetosphere/Earth)
- Imaging and Remote Sensing (Sun and 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/ULF, Photometers

## CDAWeb Data Explorer

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

Start time (YYYY/MM/DD HH:MM:SS.mmm): 2012/06/20 00:00:00.000  
 Stop time (YYYY/MM/DD HH:MM:SS.mmm): 2012/06/21 00:00:00.000

Select an activity:

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

Also create PS and PDF outputs (all plot types except images and plasmagrams).

Many panels per dataset are allowed but <=4 panels optimal for standard Y-axis height and single page display. **NEW**

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 V3.4 CDFs for download or VIRBO Autoplot demonstration: select one or more variables from the list below and press submit.

Create Version 2.7.2 compatible CDFs (Default is Version 3.4)

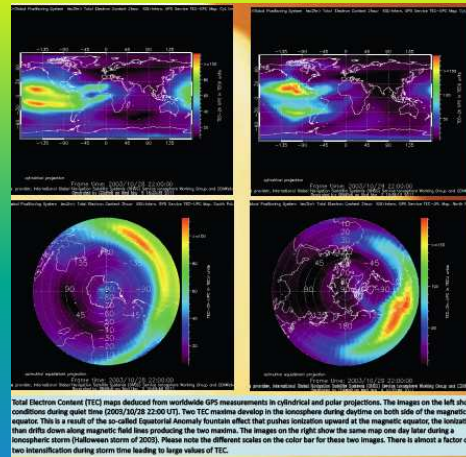
Get [CDEFX](#): IDL GUI plotting/listing toolkit software. To be used with either the daily or "created" CDF files available above.

Plotting Options

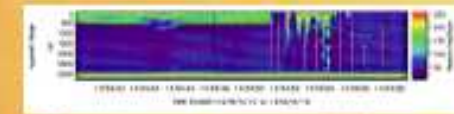
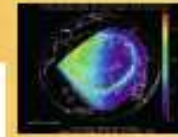
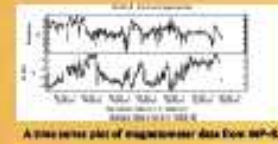
Use coarse noise filtering to remove values outside 3 deviations from mean of all values in the plotted time interval.

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

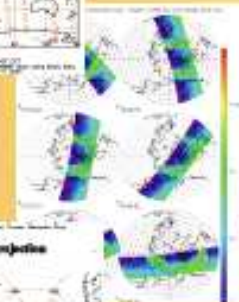
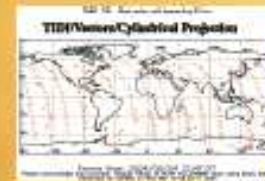
Combine all time-series and spectrogram plots, for all requested datasets, into one plot file.



## CDAWeb Examples:



W3-2 capsule magnetogram near the magnetic equator (Qutub, Peru) with 600 spots.



more examples



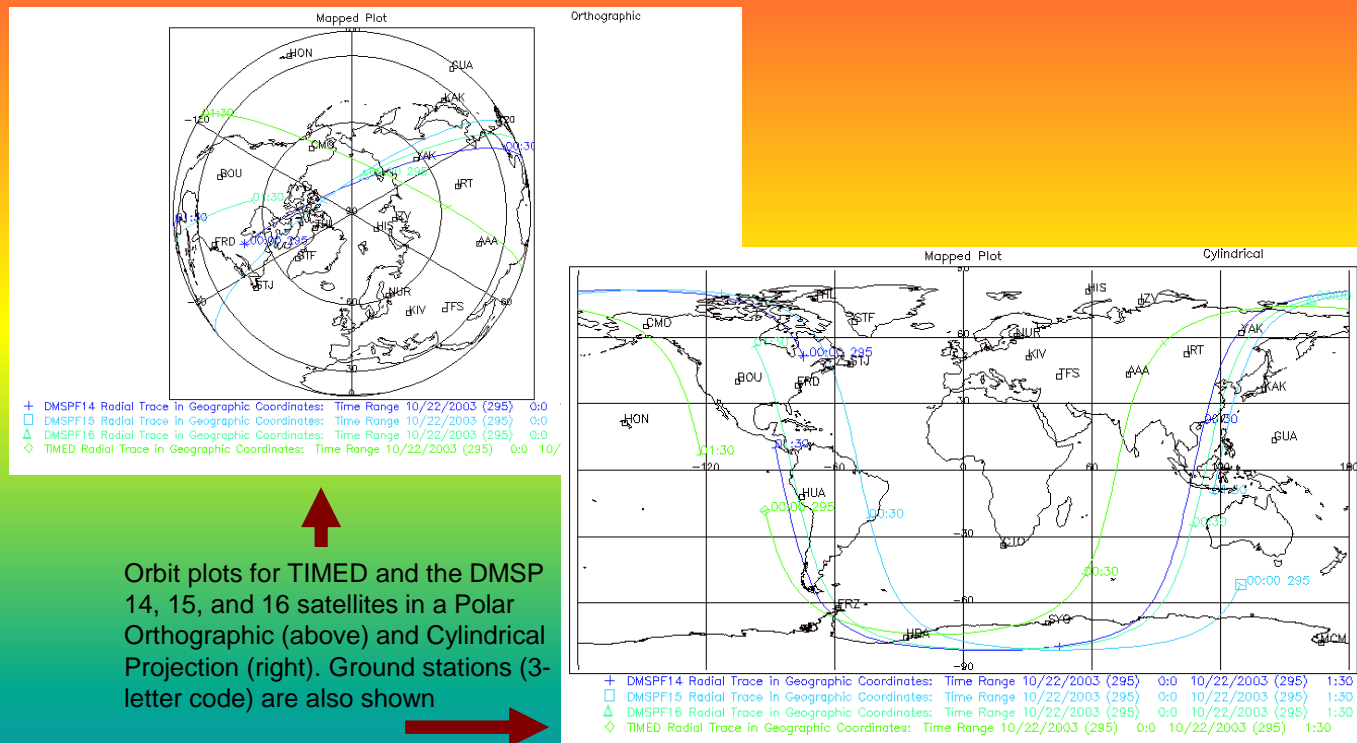
# SSCWeb

## Satellite Situation Center System

- ▲ 2-d display of satellite orbits and magnetically traced footpoints and listings of these parameters.
- ▲ Wide scope of missions (75 spacecraft) including most satellites of ITM interest (TIMED, DMSP 8-16, UARS, SNOE, etc).
- ▲ Powerful capabilities to map spacecraft trajectories to magnetic foot points.
- ▲ Complex spacecraft-spacecraft, spacecraft-ground station, and spacecraft-region conjunction queries
- ▲ TIPSOD: Interactive 3-d animation of spacecraft orbits.
- ▲ Coordinate Calculator

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

# SSCWeb Examples - 1



Orbit plots for TIMED and the DMSPF 14, 15, and 16 satellites in a Polar Orthographic (above) and Cylindrical Projection (right). Ground stations (3-letter code) are also shown



## SSCWeb Examples - 2

Listing of times when the magnetic footprints of TIMED, DMSP 13, 14, 15 or 16 crossed the Arecibo ground station.

yyyy	ddd	hh.hhhhh	Time	Sat.	GEO		Radius (km)	Trace GEO		ArcLen (km)	Ground Stations:
					Lat	Long		Lat	Long		
2003	292	0.01667	dmspf16	-32.78	304.10	7230	19.60	294.66	8199	Arecibo	
2003	292	0.03333		-29.31	303.11	7230	17.01	294.61	6898	Arecibo	
2003	292	0.23333	dmspf16	12.51	293.05	7229	19.05	291.77	1097	Arecibo	
2003	292	0.31667	dmspf14	-32.87	297.28	7221	17.44	290.81	7650	Arecibo	
2003	292	1.23333	dmspf15	-28.26	306.59	7219	17.71	296.86	6875	Arecibo	
2003	292	1.41667	dmspf15	10.19	297.54	7219	17.57	295.85	1173	Arecibo	
2003	292	9.41667	timed	-35.35	296.89	7004	17.40	290.50	8028	Arecibo	
2003	292	9.63333	dmspf13	-28.67	306.75	7233	18.11	296.85	7045	Arecibo	
2003	292	11.13333	dmspf13	12.61	291.12	7228	19.03	289.98	1084	Arecibo	
2003	292	11.36667	dmspf16	-31.39	302.55	7229	18.10	293.97	7538	Arecibo	
2003	292	11.66667	dmspf14	-33.90	295.55	7227	17.79	289.73	7937	Arecibo	
2003	292	12.53333	dmspf15	-29.56	307.38	7221	18.82	297.08	7377	Arecibo	
2003	292	14.03333	dmspf15	11.53	291.65	7221	18.18	290.46	1101	Arecibo	
2003	292	22.28333	dmspf13	11.54	300.06	7217	18.76	298.24	1160	Arecibo	
2003	292	23.81667	dmspf16	-29.87	306.48	7231	18.70	296.49	7409	Arecibo	

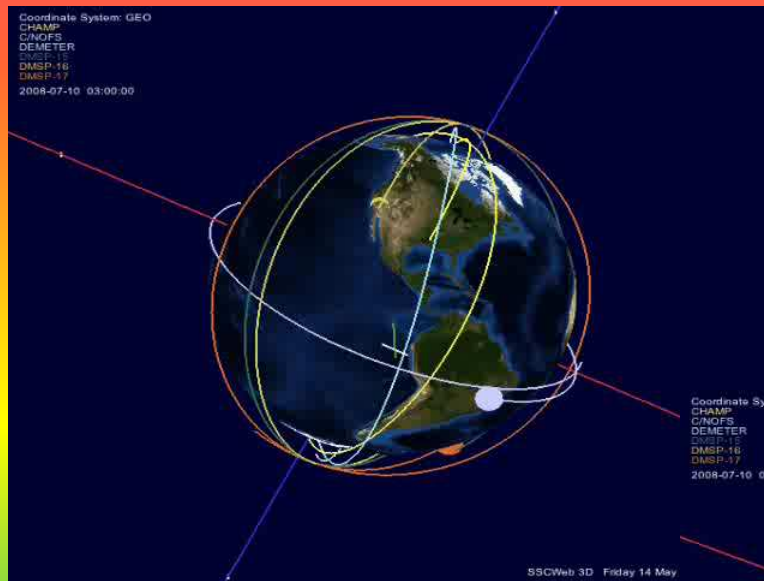
yyyy	ddd	hh.hhhhh	Time	Satellite	GEO		Radius (km)	Trace GEO		ArcLen (km)	Lead Sat.	
					Lat	Long		Lat	Long		Dist.	Name
2004	15	10.58333	polar	13.96	76.64	38152	69.34	73.69	41635	34567	timed	
2004	15	10.58333	timed	68.49	76.85	6992	69.13	77.44	539			
2004	16	0.53333	doublestar1	-28.18	165.25	38715	-58.65	151.85	34985	32959	timed	
2004	16	0.53333	timed	-58.42	151.78	7003	-58.85	151.19	544			
2004	16	6.08333	dmspf15	74.37	195.14	7205	75.16	196.12	754	239	timed	
2004	16	6.08333	timed	73.96	192.34	6992	74.57	192.98	539			
2004	16	22.25000	dmspf16	74.43	291.52	7215	74.79	290.13	759	239	timed	
2004	16	22.25000	timed	73.81	290.53	6992	74.07	289.54	535			

Listing of times of magnetic conjunction between TIMED and Doublestar 1, or DMSP 15 or 16.

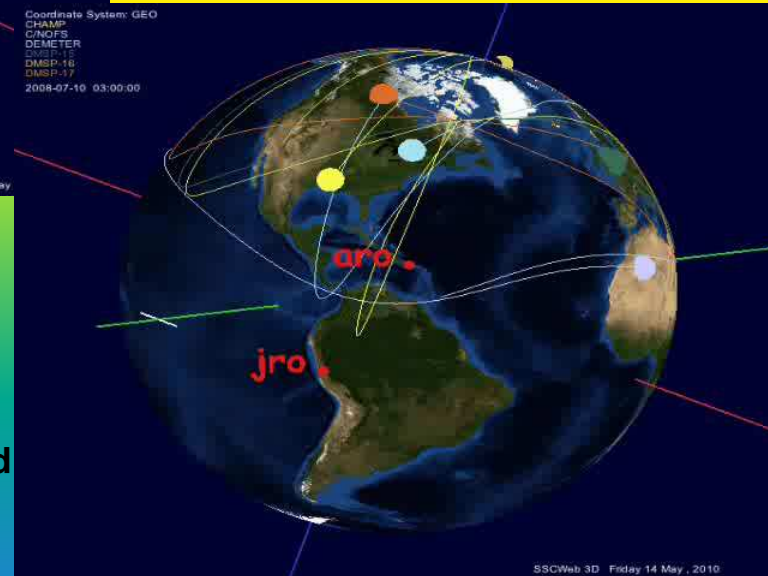




## SSCweb - 4-D orbit animation



- C/NOFS
- Demeter
- Champ
- DMSP 15
- ∩ DMSP 16
- DMSP 17



Foot-points tracks and  
ground stations