



Virtual Model Repository (VMR) Scientific Analysis Tools

<http://vmr.engin.umich.edu/>

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Virtual Model Repository

- The VMR is a virtual observatory that enables scientific analysis of numerical model results. A variety of model results are made available in a consistent and intuitive way through visualization tools and data/model comparisons. Open access to most model output is provided.
- The VMR enables browse/search of model output and satellite data for time periods of scientific interest. Data discovery and exchange is coordinated through various APIs from multiple sites to bring in the relevant data for visualization, such as CDAWeb, CCMC runs, and Michigan runs of SWMF, AMIE, HEIDI, and GITM.

VMR Homepage

The newly redesigned VMR homepage allows you to quickly get to the information you want. You can filter the search by date, data type, and region of space, or just jump to a specific type of data and refine the search further there.

VMR - VIRTUAL MODEL REPOSITORY

Welcome to the Virtual Model Repository at the University of Michigan

VMR Goals:

- Make computational model results available to the general community
 - Enable search tools to help discover model runs
 - Provide consistent visualization of model results
 - Allow independent interpretation of published model findings
- Provide intuitive data-model comparisons
 - Get data from various sites, including other Virtual Observatories (VxOs)
 - Get model results from the CCMC, UM, and other sites
- Enable open access to model output used in support of published papers.

Follow the link below to begin your search data and models, and the next page will appear

- [Search for DATA and MODELS](#)

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search by:

DATE: DATA TYPE: REGION OF SPACE:

Search Criteria	Search Results
DATE = 2000	<p>Data</p> <p>View F10.7 results for selected search.</p> <p>View Kyoto Dst results for selected search.</p> <p>View CDAWeb results for selected search.</p> <p>Go to Satellite magnetic field plotting. [view/hide details]</p> <p>Plot Geotail</p> <p>Plot GOES-8</p> <p>Plot GOES-10</p> <p>Plot Polar</p> <p>Plot Wind</p> <p>Plot IMP-8</p> <p>Models</p> <p>View HEIDI results.</p> <p>View AMIE results.</p> <p>View CCMC magnetosphere event run results.</p> <p>View SWMF magnetosphere run results.</p> <p>Run IRI.</p>

[View](#) list of data currently included in the VMR.
[View](#) list of models currently included in the VMR.

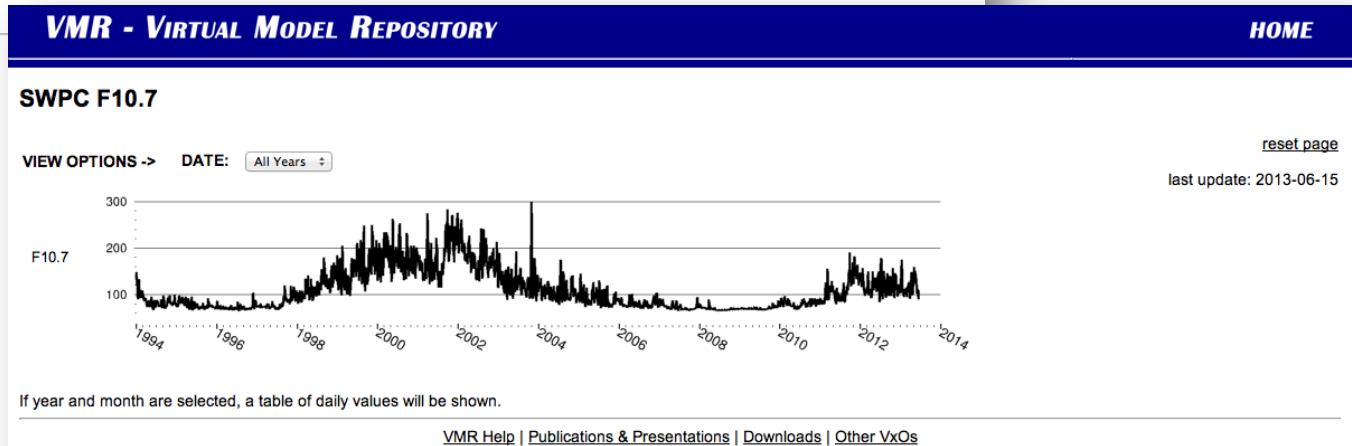
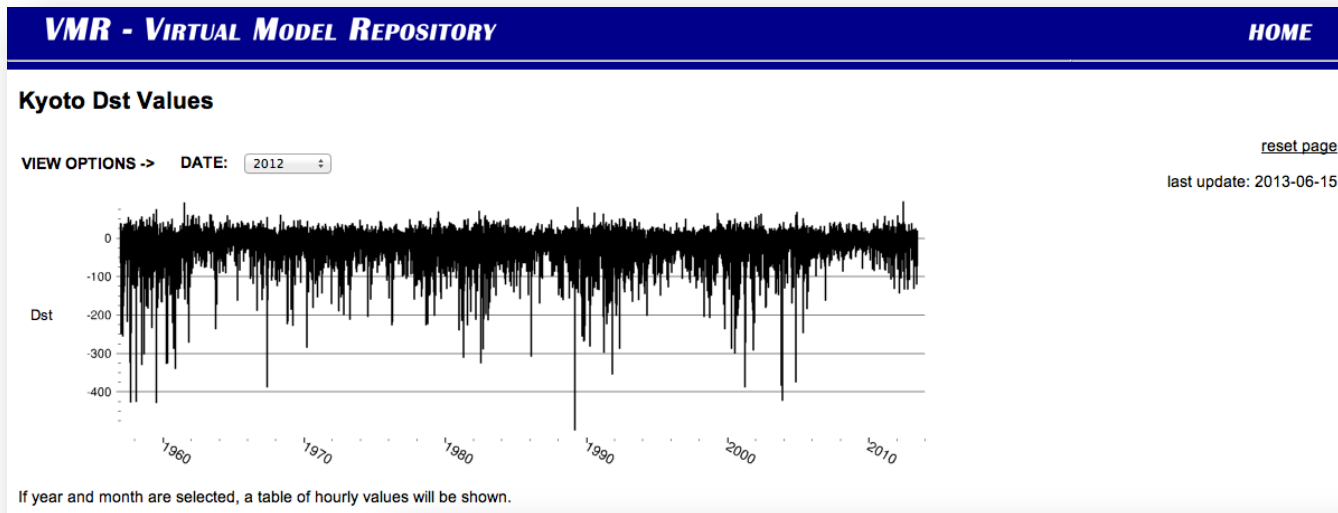
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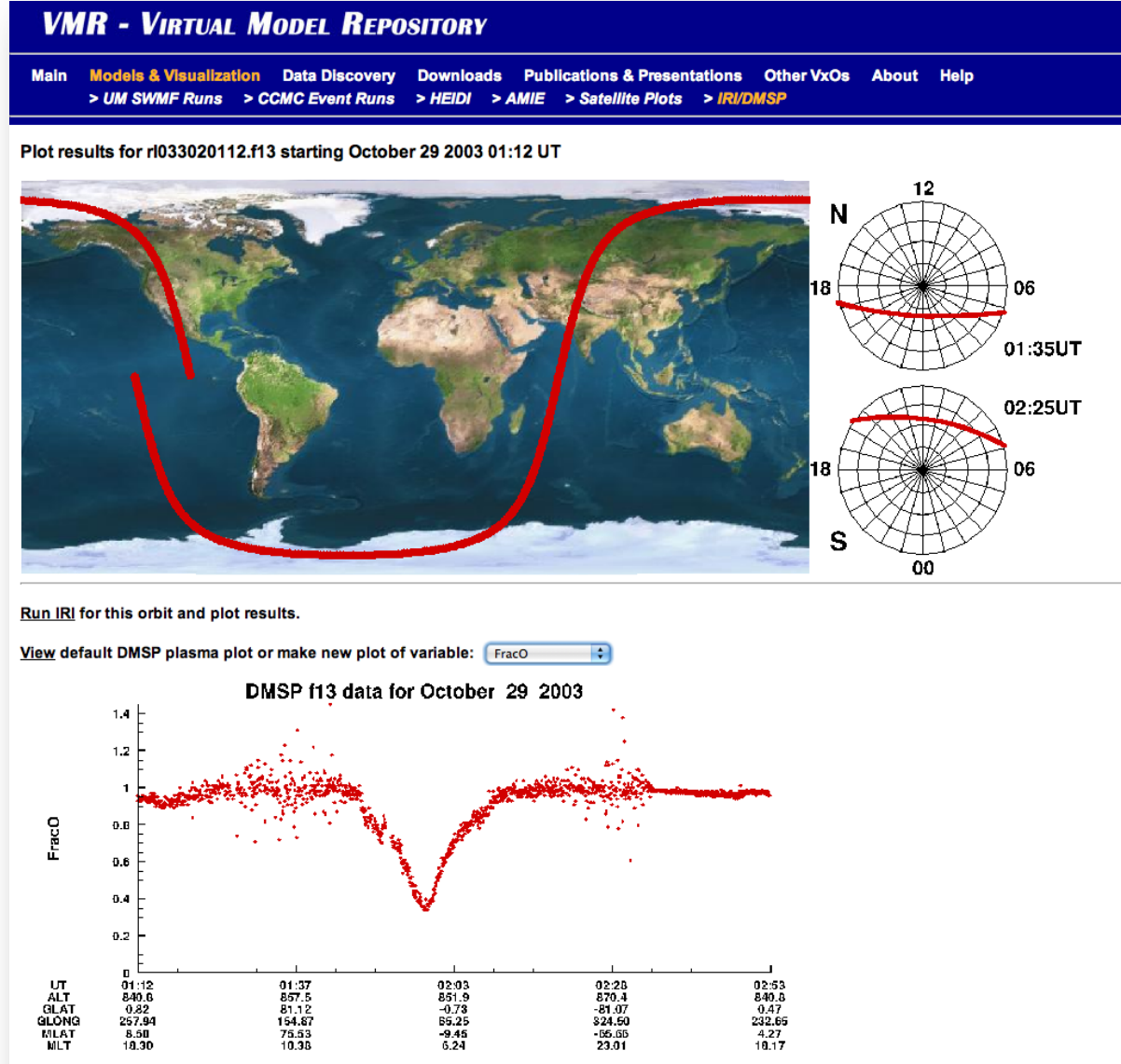
Search for DATA: Dst, F10.7

Dst and F10.7 are easy to obtain, both visually and numerically, to search for time periods of interest.



Search for DATA: DMSP

- DMSP plots can be made from single or multiple orbits.



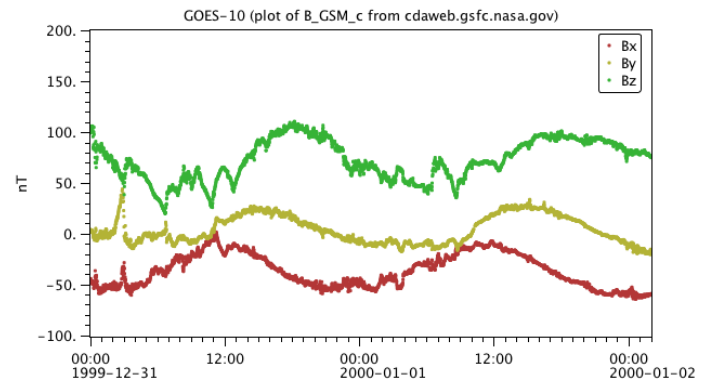
Search for DATA: satellites

Visualization of magnetic field data from many satellites is provided, with instructions to use autoplot.

Satellite Magnetic Field Data Plots

Geotail View plot	GOES-8 View plot
GOES-9 View plot	GOES-10 View plot
GOES-11 View plot	GOES-12 View plot
Polar View plot	Wind View plot
Cluster-1 View plot	Cluster-2 View plot
Cluster-3 View plot	Cluster-4 View plot
IMP-8 View plot	Themis-A View plot
Themis-B View plot	Themis-C View plot

Plot of GOES-10 data



To make a *similar* plot yourself that you can modify further, paste the line below into [autoplot](#) yourself.

`vap:ftp://cdaweb.gsfc.nasa.gov/pub/data/goes/goes10/mag_k0/%Y/g0_k0_mag_%Y%m%d_v...cdf?B_GSM_c&timerange=1999-12-31+thro`

You can also download [this](#) file and load it into [autoplot](#).

Enter your own date/time range to view satellite data:

Enter date and time as YYYY-MM-DD / HH:MM:SS data range: 1999-03-21 - 2006-07-22

Begin: /

End: /

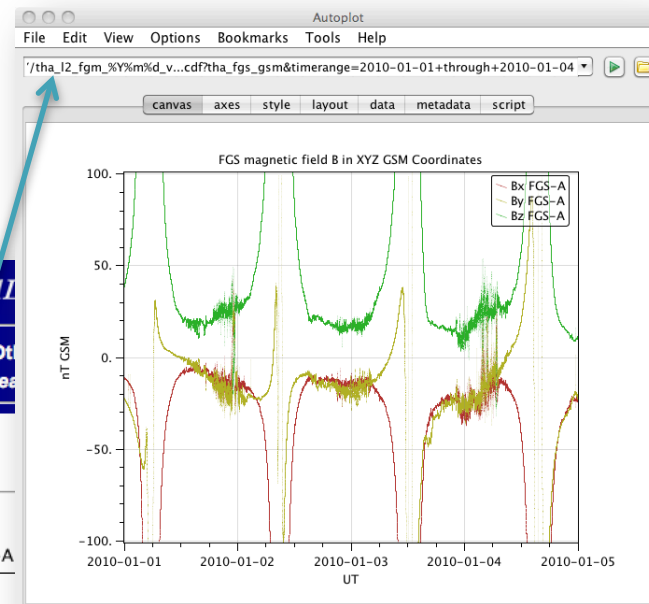
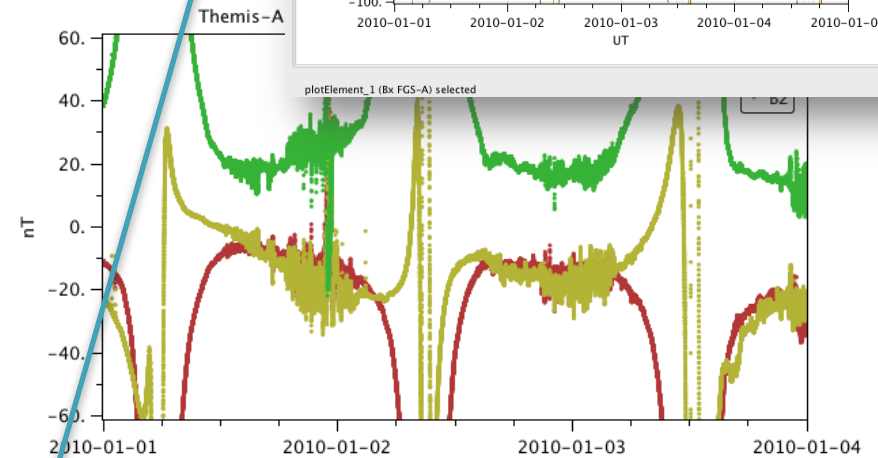
View plots already created for this satellite from other runs: (3)

Customize your plot

- Many plots are now created with autoplot
 - You can take the custom URL and view the data yourself.
 - You can also download the .vap file and load it into autoplot to then further customize the plot yourself.



Plot of Themis-A data



To make a *similar* plot yourself that you can modify further, paste the line below into [autoplot](#) yourself.

`vap:ftp://cdaweb.gsfc.nasa.gov/pub/istp/themis/tha/l2/fgm/%Y/tha_l2_fgm_%Y%m%d_v...cdf?tha_fgs_gsm&timerange=2010-01-01+through+2010-01-04`

You can also download [this](#) file and load it into [autoplot](#).

Enter your own date/time range to view satellite data:

Enter date and time as YYYY-MM-DD / HH:MM:SS data range: 2007-02-18 - current

Begin: /

End: /

View plots already created for this satellite from other runs: (2)

-SELECT PLOT-



Search for DATA: CDAWeb

CDAWeb data availability can be browsed, and direct ftp access provided. View Space Physics Archive Search and Extract (SPASE) metadata, when available.

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CDAWEB Satellite Data Availability

VIEW OPTIONS -> DATE: 1998 All Months SPASE: Any REGION: Earth.Magnetosphere MEASUREMENT: MagneticField [reset page](#)

last update: 2013-05-28

VIEW NOTES

Category	Item	Count	SPASE	Availability
equator-s	pp / mam	136	SPASE	[Green bar]
	fast	1242	SPASE	[Green bar]
geotail	eda3sec_mgf	3873	SPASE	[Green bar]
	edb3sec_mgf	4809	SPASE	[Green bar]
	mgf	7472	SPASE	[Green bar]
	pwl	7545	SPASE	[Green bar]
goes	goes08 / mag_k0	2585	SPASE	[Green bar]
	goes09 / mag_k0	960	SPASE	[Green bar]
imp	imp8 / mag / mag_15sec_cdaweb	9721	SPASE	[Green bar]
	imp8 / mag / mag_320msec_cdaweb	9369	SPASE	[Green bar]
interball	tail / mfi	1798	SPASE	[Green bar]
	tail / mfi_h0	1667	SPASE	[Green bar]

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SPASE description for: geotail / mgf

Spase
Version: 2.2.0

NumericalData
ResourceID: spase://VMO/NumericalData/Geotail/MGF/PT15S
ResourceName: Geotail 15-sec magnetic field data, solar wind only
ReleaseDate: 2011-04-07T00:00:00
Description: Data consist of 15-sec averages of magnetic field magnitude and GSE Cartesian components, from the MGF magnetometer on Geotail. Data are for only the solar wind phases of the Geotail orbit. The Geotail position vector in GSE coordinates is included.
Acknowledgement: Dr. T. Nagai

Contact
PersonID: spase://SMWG/Person/Tsugunobu.Nagai
Role: PrincipalInvestigator

Contact
PersonID: spase://SMWG/Person/Natalia.E.Papitashvili
Role: DataProducer

InformationURL
Name: Readme file at SPDF
URL: ftp://spdf.gsfc.nasa.gov/pub/data/geotail/mag_sw_15s/00readme
Description: Details on creation of this data set

AccessInformation
RepositoryID: spase://SMWG/Repository/NASA/GSFC/SPDF
Availability: Online
AccessRights: Open
AccessURL
Name: SPDF FTP area
URL: ftp://spdf.gsfc.nasa.gov/pub/data/geotail/mag_sw_15s/
AccessURL
Name: SPDF HTTP area
URL: http://spdf.gsfc.nasa.gov/pub/data/geotail/mag_sw_15s/
Description: In CDF via HTTP from SPDF

Search For MODEL: HEIDI

HEIDI results are given for a large number of storm runs. Later this summer it will include interactive plots.

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HEIDI: Hot Electron and Ion Drift Integrator

Many numerical simulations of the inner magnetosphere have been conducted using the HEIDI model. Provided here are simulation results for 90 intense magnetic storms with a minimum DST value of less than -100nT from solar cycle 23 (1996-2005). Each run begins 24 hours before the minimum DST and ends 48 hours after. The two main parameters that control the strength of the ring current during a storm interval are the plasma sheet density and the large-scale convection electric field. For each storm simulated, two different electric fields and three different outer boundary plasma inputs were used.

For more information on HEIDI and the storm runs presented here, email [Mike Liemohn](mailto:mliemohn@lanl.gov).

Two papers that provide an overview of HEIDI and the runs presented here are available here:

- [Liemohn2008_HEIDI.pdf](#)
- [Liemohn2010_CIRvsCME.pdf](#)

Select the storm and run settings to view the summary plots.

Storm:

Code Settings:

Code Settings Table	UT based LANL timeseries outer boundary	UT+LT based LANL re-analysis outer boundary	UT based LANL re-analysis outer boundary
Kp driven shielded Volland-Stern electric field	1	3	
Solar wind driven self consistent electric field	2	4	5

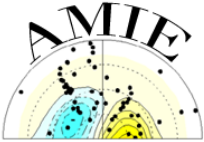
Summary plots for 1996-10-23 storm using code settings 2 (Click on plot to view larger image)

Search For MODEL: AMIE

AMIE results and data files are directly downloadable, and a new autoplot interface has been added.

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AMIE: The Assimilative Mapping of Ionospheric Electrodynamics



AMIE Plotter

Data Providers

Links

Downloads

AMIE Plotter:

Select year:

Select month:

Select day: [download](#) data for this date

Select plot type:

Select plot variable:

Click image to get postscript file.

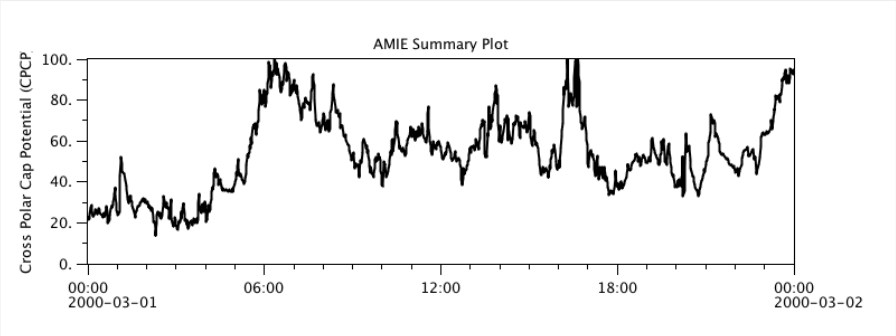



FIGURE CAPTION
Plot of CPCP - Cross Polar Cap Potential for March 01, 2000.

To view in autoplot, copy this string to autoplot:
vap+txt:http://vmr.engin.umich.edu/Model/_amie/DATA/%Y/%m/b%Y%m%dn_sum?skipLines=1&column=field6&timeFormat=%Y+Sm+Sd+SH+SM+SS&time=field0&timerange=2000-03-01+through+2000-03-01

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Search For MODEL: IRI

IRI can be run for individual profiles or sweeps and can be run and compared directly to DMSP data.

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Run IRI-2007 (International Reference Ionosphere)

Select date for all run types: Year: 2000 Month: March Day: 01

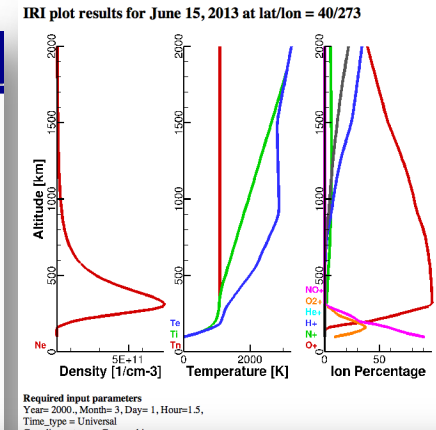
1st location selected.
Latitude = 40 Longitude = 273

2nd location (enter point or click map above)
Latitude(deg.,from -90. to 90.): Longitude(deg.,from 0. to 360.)

The IRI ModelWeb site can be found [here](#).

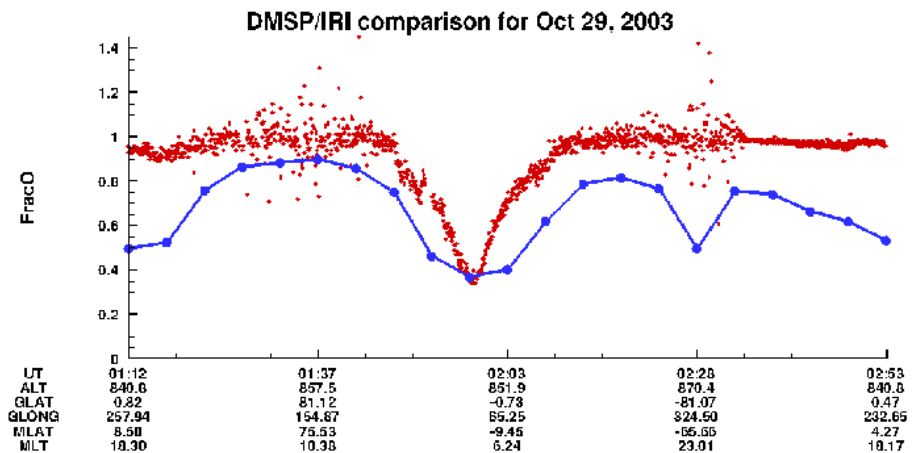
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display results ...

[View](#) default DMSP plasma plot or make new plot of variable:



NOTE: Plot values are from DMSP satellite variable list, values not available from IRI will be 0.

Search For MODEL: GITM

GITM plots are a new addition. This plotting tool uses python and the spacepy library.

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[return](#)

GITM Plotting Tool: 2002_02

=> Select plot options below and click 'Update Plot'

Plotfile: Year-Month-Day, Hour:Minute (552 files found)
2002-03-01, 00:00

Variable
Plot: Tn

Vertical Line/Slice Options

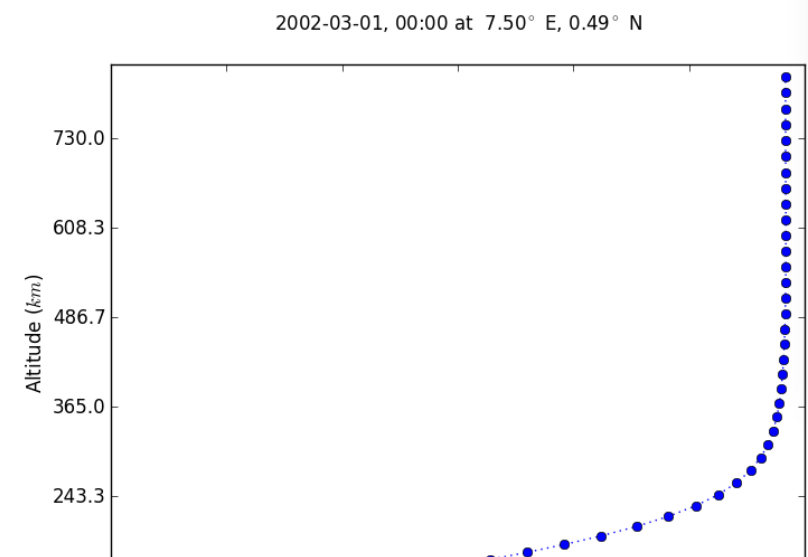
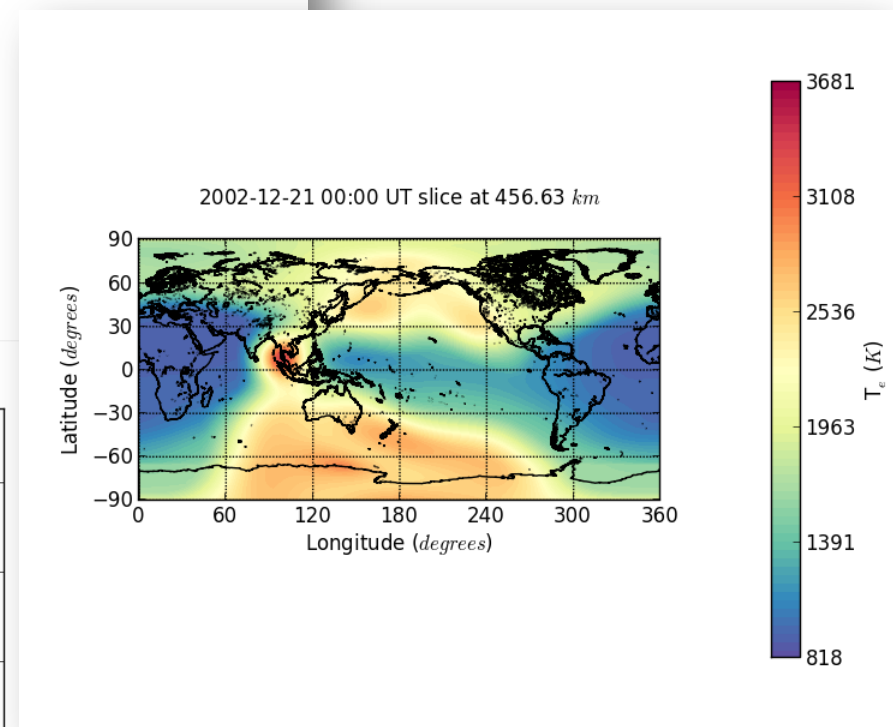
Line at Latitude 0.14332828 Longitude 2.5

Slice at Latitude 0.14332828

Slice at Longitude 2.5

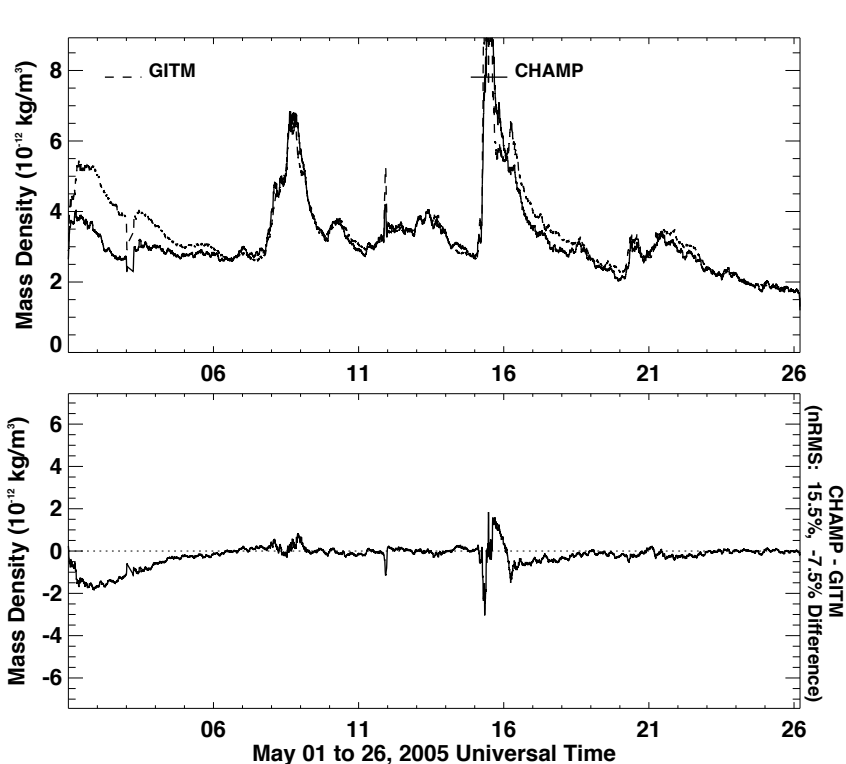
Update Plot (wait time usually <20 seconds)

2002-03-01, 00:00 at 7.50° E, 0.49° N

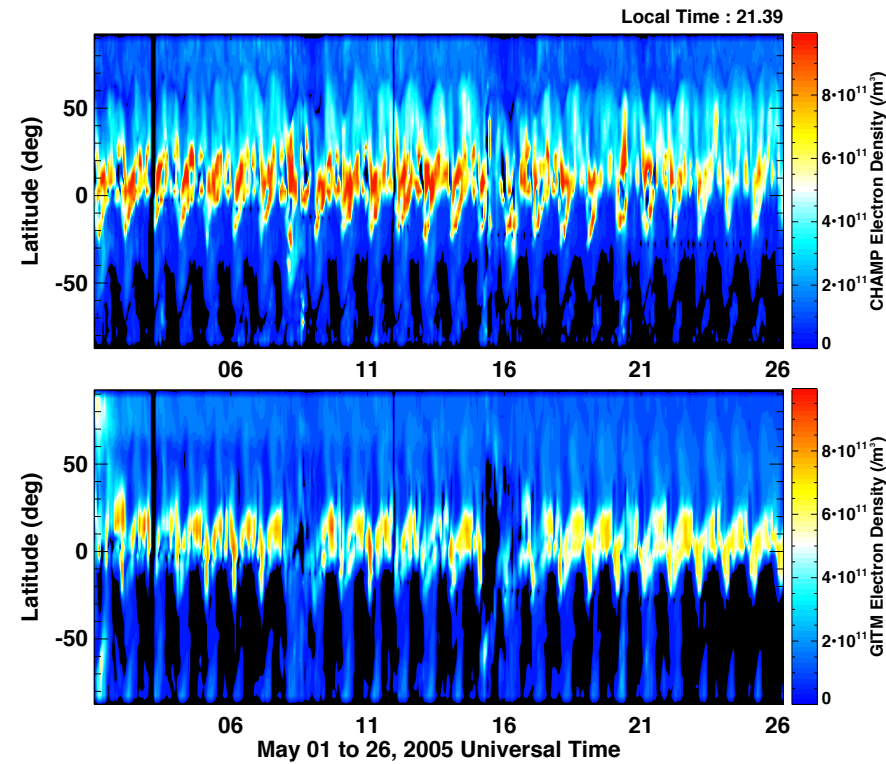



Search For MODEL: GITM

We are working on new data/model comparisons between GITM runs and CHAMP data that will be available by the end of summer.

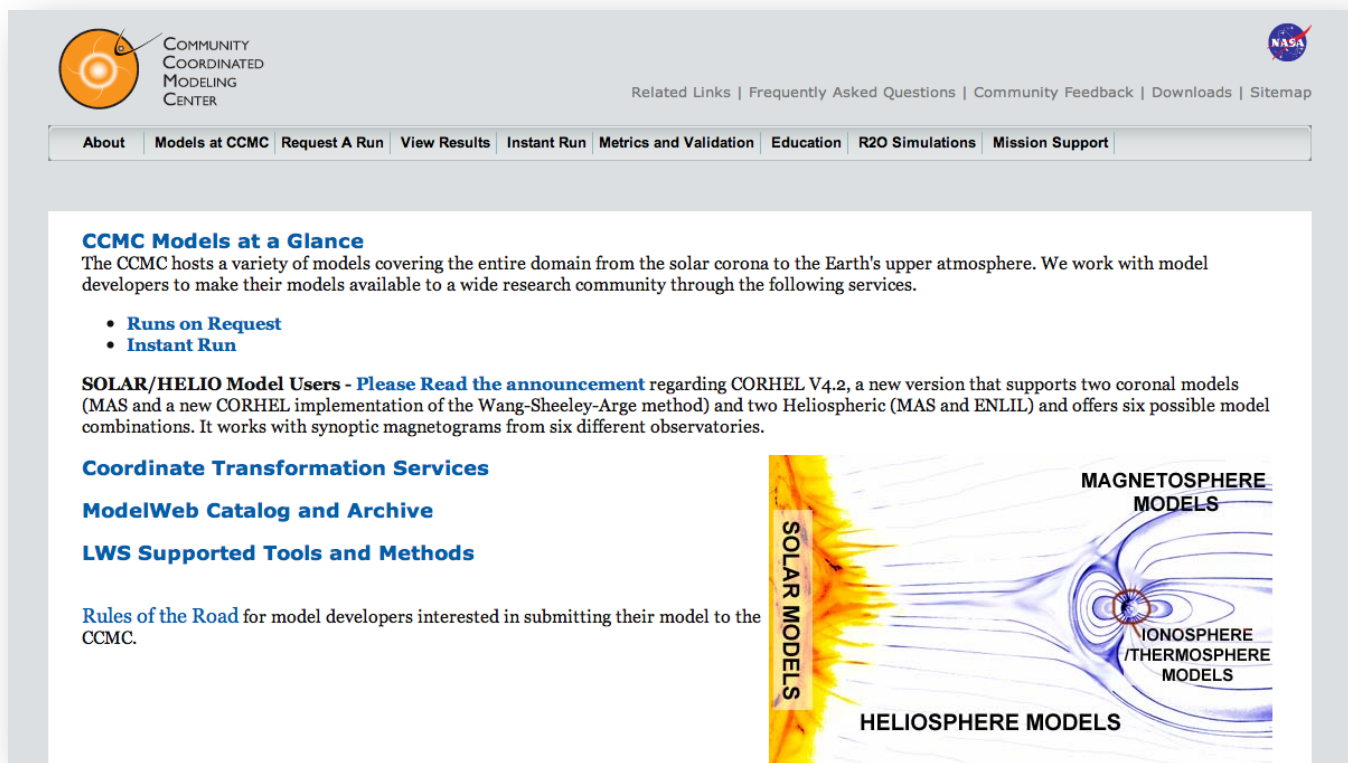


/raid1/Gitm/Runs/2005/05hr.aurora.pe=12.dynamo/data



Search For MODEL: CCMC

The Community Coordinated Modeling Center is a great resource for its run-on-request model collection. CCMC has visualization tools to view the model results, but no tools for data/model comparisons. The CCMC website links to the VMR for that capability.



The screenshot shows the CCMC website with the following content:

- Header:** COMMUNITY COORDINATED MODELING CENTER logo, NASA logo, and navigation links: Related Links | Frequently Asked Questions | Community Feedback | Downloads | Sitemap.
- Navigation Bar:** About | Models at CCMC | Request A Run | View Results | Instant Run | Metrics and Validation | Education | R2O Simulations | Mission Support
- Main Content:**
 - CCMC Models at a Glance**
The CCMC hosts a variety of models covering the entire domain from the solar corona to the Earth's upper atmosphere. We work with model developers to make their models available to a wide research community through the following services.
 - [Runs on Request](#)
 - [Instant Run](#)
 - SOLAR/HELIO Model Users - Please Read the announcement** regarding CORHEL V4.2, a new version that supports two coronal models (MAS and a new CORHEL implementation of the Wang-Sheeley-Arge method) and two Heliospheric (MAS and ENLIL) and offers six possible model combinations. It works with synoptic magnetograms from six different observatories.
 - Coordinate Transformation Services**
 - ModelWeb Catalog and Archive**
 - LWS Supported Tools and Methods**
 - Rules of the Road** for model developers interested in submitting their model to the CCMC.
- Diagram:** A diagram illustrating the domains of various models. It shows the Sun on the left, labeled 'SOLAR MODELS'. To the right, the 'HELIOSPHERE MODELS' domain is shown. Further right, the 'MAGNETOSPHERE MODELS' domain is shown, which includes the 'IONOSPHERE / THERMOSPHERE MODELS' domain.


Search For MODEL: CCMC

The Earth magnetosphere event run catalog at CCMC is searchable in the VMR.

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[solar](#)
[heliosphere](#)
[magnetosphere](#)
[inner magnetosphere](#)
[ionosphere/thermosphere](#)

Search NASA's Community Coordinated Modeling Center (CCMC) Runs-On-Request Magnetosphere Event Runs



Filters

Run start/end date as YYYYMMDD:
 /

Run Name:

Keyword:

Model:

Run ID:


Results

... displaying 25 of 1021 runs ...
sort by run first or last name

select	model	event date	run ID	F10.7	3D files
select	SWPC_OpenGGCM_022712_8	OpenGGCM 4.0	August 5, 2011	6757	113 1801
select	SWPC_OpenGGCM_022712_7	OpenGGCM 4.0	April 4, 2010	6756	79 1621
select	SWPC_OpenGGCM_031111_4	OpenGGCM 4.0	August 30, 2005	6755	86 1861
select	SWPC_OpenGGCM_031111_3	OpenGGCM 4.0	August 30, 2001	6754	203 1741
select	SWPC_OpenGGCM_031111_2	OpenGGCM 4.0	December 14, 2006	6753	275 1432
select	SWPC_CMIT-LFM-MIX-TIEGCM_031711_4	LFM LTR-2_1_1	August 31, 2005	6752	86 841 *
select	SWPC_CMIT-LFM-MIX-TIEGCM_031711_2	LFM LTR-2_1_1	December 14, 2006	6751	99 150
select	SWPC_LFM_030512_8	LFM LTR-2_1_1	August 5, 2011	6734	113 1801
select	SWPC_LFM_030512_7	LFM LTR-2_1_1	April 4, 2010	6733	79 1621
select	SWPC_SWMF_022512_8	SWMF v20110131	August 5, 2011	6585	113 1741 *
select	SWPC_SWMF_022512_7	SWMF v20110131	April 4, 2010	6584	79 2086 *
select	SWPC_SWMF_060411_6	SWMF v20110131	May 14, 2005	5630	110 4431 *
select	SWPC_CMIT-LFM-MIX_031711_4	LFM LTR-2_1_1	August 31, 2005	5326	86 1561
select	SWPC_CMIT-LFM-MIX_031711_2	LFM LTR-2_1_1	December 14, 2006	5325	99 2161
select	SWPC_CMIT-LFM-MIX-TIEGCM_031711_3	LFM LTR-2_1_1	August 31, 2005	5324	86 781
select	SWPC_CMIT-LFM-MIX_031711_3	LFM LTR-2_1_1	August 31, 2001	5313	192 1441
select	SWPC_SWMF_030311_1b	SWMF v20110131	October 29, 2003	5312	275 480
select	SWPC_SWMF_060411_5	SWMF v20110131	May 14, 2005	5310	102 1475
select	SWPC_SWMF_052811_4	SWMF v20110131	August 31, 2005	5274	86 1591
select	SWPC_SWMF_052811_3	SWMF v20110131	August 30, 2001	5270	203 1509
select	SWPC_SWMF_052811_2	SWMF v20110131	December 14, 2006	5268	91 2191
select	SWPC_SWMF_030311_1a	SWMF v20110131	October 29, 2003	5060	275 1471 *
select	SWPC_CMIT-LFM-MIX_031711_1	LFM LTR-2_1_1	October 29, 2003	4919	275 1741
select	SWPC_OpenGGCM_031111_1	OpenGGCM 4.0	October 29, 2003	4863	275 10
select	SWPC_SWMF_030311_1	SWMF v20110131	October 29, 2003	4838	275 1440

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Search For MODEL: CCMC

View a specific run and you can see the satellite extractions made from the model output and make the data/model comparisons. You can also view other model variables.

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[return](#) **Detail view for CCMC event run Martin_Connors_101411_1**

Satellite Data Available	Data-Model Comparison	Model on Satellite Track	Run information:
Satellite	Satellite	Satellite	View run at CCMC site.
Cluster-1 plot B data plot B data +/-1 day	Cluster-1 plot B	Cluster-1 plot model	Event Date October 27 2009
Cluster-2 plot B data plot B data +/-1 day	Cluster-2 plot B	Cluster-2 plot model	Start Time 2009/10/27 20:00
Cluster-3 plot B data plot B data +/-1 day	Cluster-3 plot B	Cluster-3 plot model	End Time 2009/10/29 14:00
Cluster-4 plot B data plot B data +/-1 day	Cluster-4 plot B	Cluster-4 plot model	Key Words plasma sheet
GOES-10 N/A	GOES-10	GOES-10 plot model	Model OpenGGCM
GOES-11 plot B data plot B data +/-1 day	GOES-11 plot B	GOES-11 plot model	Model Version 3.1
GOES-12 plot B data plot B data +/-1 day	GOES-12 plot B	GOES-12 plot model	Validation Level 0
Geotail plot B data plot B data +/-1 day	Geotail plot B	Geotail plot model	Coordinate System for Input GSM
IMP-8 N/A	IMP-8	IMP-8 plot model	Coordinate System for Output GSE
Themis-A plot B data plot B data +/-1 day	Themis-A	Themis-A	Dipole Tilt, in the X-Z Plane, at Start deg -6.30
Themis-B plot B data plot B data +/-1 day	Themis-B	Themis-B	Dipole Tilt, in Y-Z GSE plane, deg -10.80
Themis-C plot B data plot B data +/-1 day	Themis-C	Themis-C	Update Dipole Orientation with Time no
Themis-D plot B data plot B data +/-1 day	Themis-D	Themis-D	Inflow Boundary R_E 24
Themis-E plot B data plot B data +/-1 day	Themis-E	Themis-E	F10.7 80
Wind plot B data plot B data +/-1 day	Wind	Wind	Conductance Model auroral
			Corotation no
			Run Number Martin_Connors_10141
			3D files saved 631

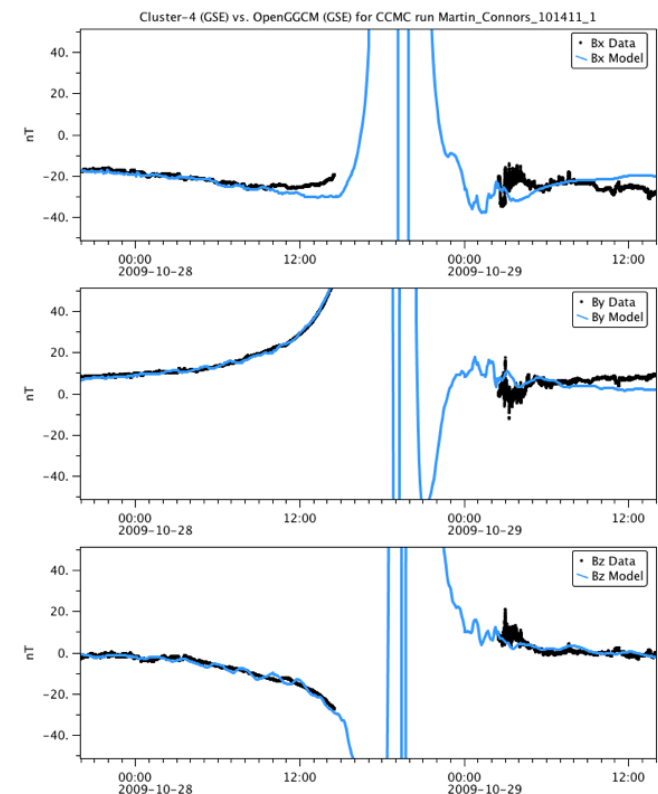
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Plot of CCMC event run Martin_Connors_101411_1
OpenGGCM run vs. Cluster-4 data for 2009-10-27 20:00:00 to 2009-10-29 14:00:00



You can download [this](#) file and load it into [autoplut](#) to make further modifications.

Search For MODEL: CCMC

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Plot of CCMC event run SWPC_SWMF_052811_2 model results along GOES-12 path for 2006-12-14 07:00:00 to 2006-12-16 00:00:00

SWPC_SWMF_052811_2: BATSRUS plot along GOES-12 trajectory.

You can download [this file](#) and load it into [autoplot](#) to make further modifications.
 or plot satellite position.

NOTE: If your plot is blank, then it is likely that the satellite position is outside of the modeled region. View satellite position plot

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Plot of GOES-12 data for 2006-12-14 07:00:00 to 2006-12-16 00:00:00

GOES-12 (plot of B_GSM_c from cdaweb.gsfc.nasa.gov)

To make a similar plot yourself that you can modify further, paste the line below into [autoplot](#) yourself.
 vap:ftp://cdaweb.gsfc.nasa.gov/pub/istp/goes/12_mag/%Ygoes12_k0_mag_%Y%m%d_v...cdf?B_GSM_c&timerange=2006-12-14
 You can also download [this file](#) and load it into [autoplot](#).

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Plot of CCMC event run SWPC_SWMF_052811_2 BATSRUS run vs. GOES-12 data for 2006-12-14 07:00:00 to 2006-12-16 00:00:00

GOES-12 vs. BATSRUS for CCMC run SWPC_SWMF_052811_2

You can download [this file](#) and load it into [autoplot](#) to make further modifications.

NOTE: If there is no model values on the plot, then it is likely that the satellite position is outside of the modeled region. View the satellite position time.

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VMR - VIRTUAL MODEL REPOSITORY

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Plot of CCMC event run SWPC_SWMF_052811_2 model results along GOES-12 path for 2006-12-14 07:00:00 to 2006-12-16 00:00:00

GOES-12 position for 2006-12-14 07:00:00 to 2006-12-16 00:00:00

You can download [this file](#) and [this file](#) and load them into [autoplot](#) to make further modifications.
 or plot satellite position.

NOTE: If your plot is blank, then it is likely that the satellite position is outside of the modeled region. View satellite position plot to see where the satellite was during the modeled time.

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Search For MODEL: SWMF

Output from many SWMF runs at Michigan are also available in a similar format to the CCMC runs.

VMR - VIRTUAL MODEL REPOSITORY **HOME**

Access SWMF runs at the University of Michigan

Filters	Results																																																																																																																																																
Run start/end date as YYYYMMDD: <input type="text"/> / <input type="text"/>	... displaying 35 of 35 runs ...																																																																																																																																																
Run Name: <input type="text"/>	sort by <u>run</u>																																																																																																																																																
<input type="submit" value="submit"/> <input type="reset" value="reset"/>	<table border="0"> <thead> <tr> <th></th> <th>sort by <u>model</u></th> <th>sort by <u>event date</u></th> <th>sort by <u>execution date</u></th> </tr> </thead> <tbody> <tr><td>select By-Study-2007</td><td>SWMF GM-IE</td><td>December 22, 2001</td><td>March 28, 2007</td></tr> <tr><td>select GEM-Metrics-2009_run20010831</td><td>SWMF GM-IE</td><td>August 31, 2001</td><td>April 24, 2009</td></tr> <tr><td>select GEM-Metrics-2009_run20031029</td><td>SWMF GM-IE</td><td>October 29, 2003</td><td>April 24, 2009</td></tr> <tr><td>select GEM-Metrics-2009_run20050831</td><td>SWMF GM-IE</td><td>August 31, 2005</td><td>April 24, 2009</td></tr> <tr><td>select GEM-Metrics-2009_run20061214</td><td>SWMF GM-IE</td><td>December 14, 2006</td><td>August 21, 2009</td></tr> <tr><td>select Gerrard_run20080807_Ridley-GMIE</td><td>SWMF GM-IE</td><td>August 7, 2008</td><td>November 1, 2011</td></tr> <tr><td>select 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Search For MODEL: SWMF

1D, 2D, and 3D plots can be made for the different physics modules in the SWMF.

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Run Info

Plot Regions

GM
1D-logfile
2D-y=0-plt
2D-z=0-plt
3D-plt

IE
1D-logfile
2D-idl
MinMax-Plot

IM

Extra Files
[view \(3\)](#)

SWMF Plotting Tool: Kozyra_run20050121_DeZeeuw-GMIEIM-New7hrsB

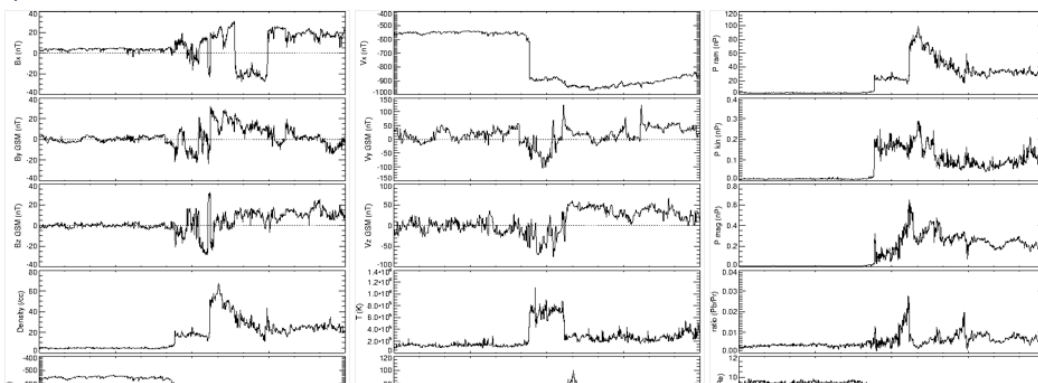
Select a plot region from the left list ...

Run Information:

```

BLOCKS = 5356 8 x 8 x 8
BODYNUMDENSITY = 28.00
BORIS = T 0.0100
BTHETATILT = 9.7924
CELLS = 2742272
CODEVERSION = BATSRUS 9.00
COORDSYSTEM = GSM
COROTATION = T
FLUXTYPE = Rusanov
GAMMA = 1.666667
ITER = 1500
NPROC = 46
ORDER = 2 mc3, beta= 1.20000
RBODY = 2.50
SAVEDATE = Save Date: 2011/06/14 at 11:25:50
TIMEEVENT = 2005/01/21 15:00:00.000
TIMEEVENTSTART = 2005/01/21 15:00:00.000
TIMESIM = T=0000:00:00
        
```

Upstream conditions:



Search For MODEL: SWMF

Plots are made with Tecplot, IDL, and autoplot. Styles can be saved and applied to different runs.

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[return](#)

SWMF Plotting Tool: Kozyra_run20050121_DeZeeuw-GMIEIM-New7hrsB / GM / 2D-z=0-plt

all numeric sorting

Run Info

Plot Regions

- GM
 - 1D-logfile
 - 2D-y=0-plt
 - 2D-z=0-plt**
 - 3D-plt
- IE
 - 1D-logfile
 - 2D-idl
 - MinMax-Plot
- IM

Extra Files
view (3)

Plot Styles

- 1 (0) [movie](#)
- 2 (0) [movie](#)
- 3 (0) [movie](#)
- 4 (0) [movie](#)
- 5 (0) [movie](#)
- 6 (0) [movie](#)

Plotfile: T=Hour:Min:Sec N=Iterations E=Date Time (421 files found)
Z=0: T=0007:00:00 N=0015767 E=2005/01/21 22:00:00.000

Contour
Variable: Range: Min/Max Custom Color: Blue-Green-Red Blue-Red

Grid:
Plot grid? No Yes

View:
Center at: X= Y= with view width

Vector Traces:
Plot fieldlines? No Yes Line Color: Black White

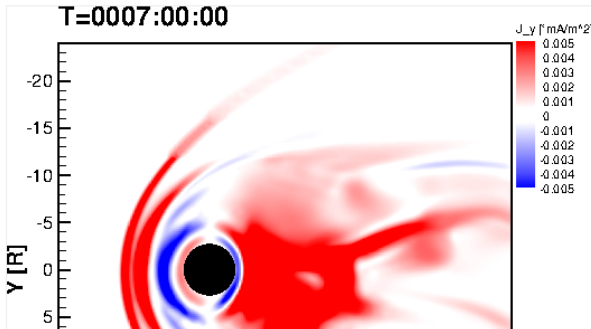
Body:
Plot circle at origin? No Yes with radius

Text Label:
Label:

(wait <1 minute unless fieldlines plotted)

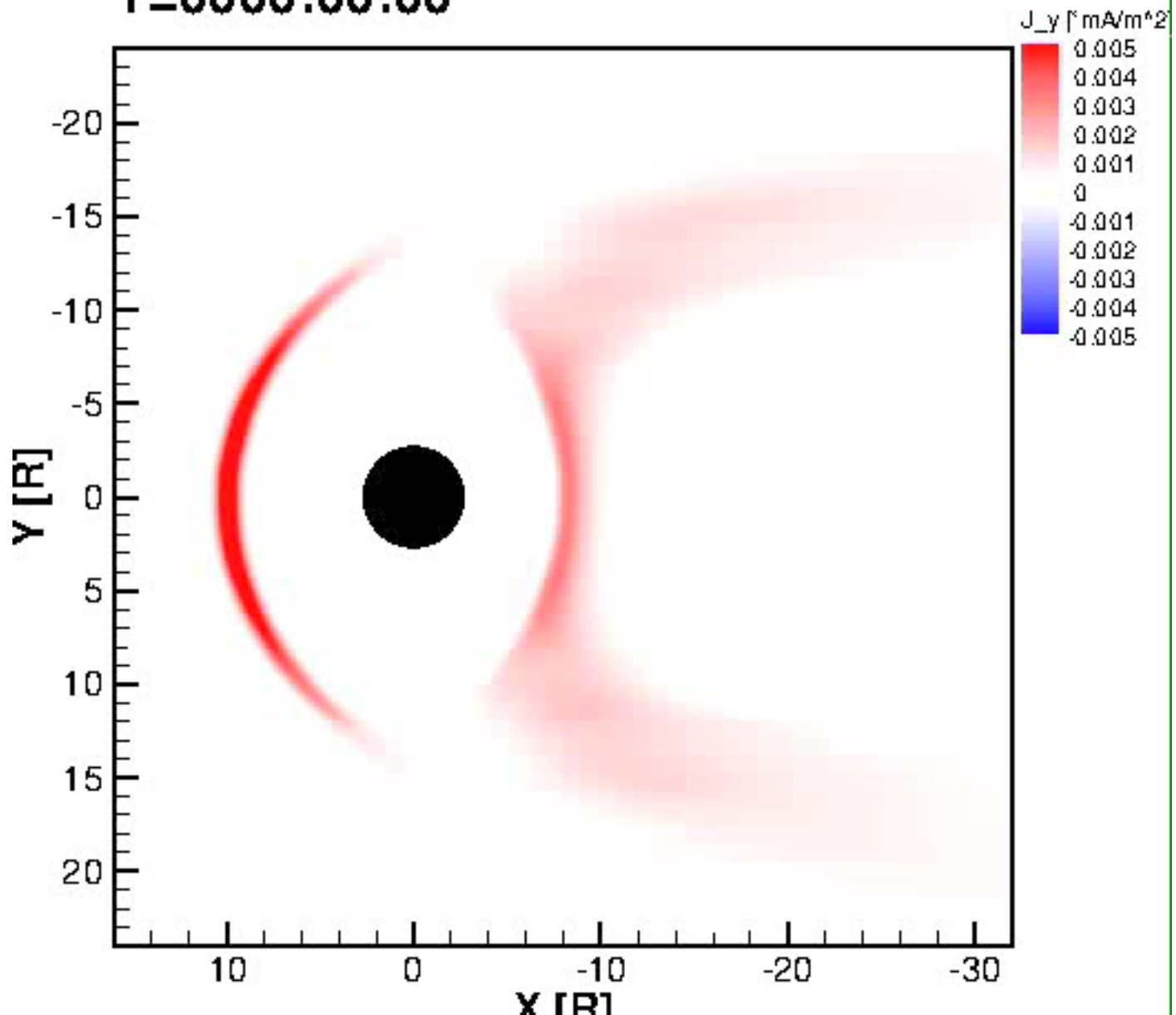
Plot result for: Z=0: T=0007:00:00 N=0015767 E=2005/01/21 22:00:00.000 (file: z=0_mhd_2_t00070000_n0015767.plt)

T=0007:00:00



Movies can be created. Shown are the dynamics of dipolarization events.

T=0000:00:00



Search For MODEL: SWMF

View:

Center at: X= Y= Z= with view width

Perspective angles: Phi= Theta= ([Help me with view angles.](#))

Vector Traces:

Plot last closed fieldlines? No Yes (5-10 minutes render time)

Body:

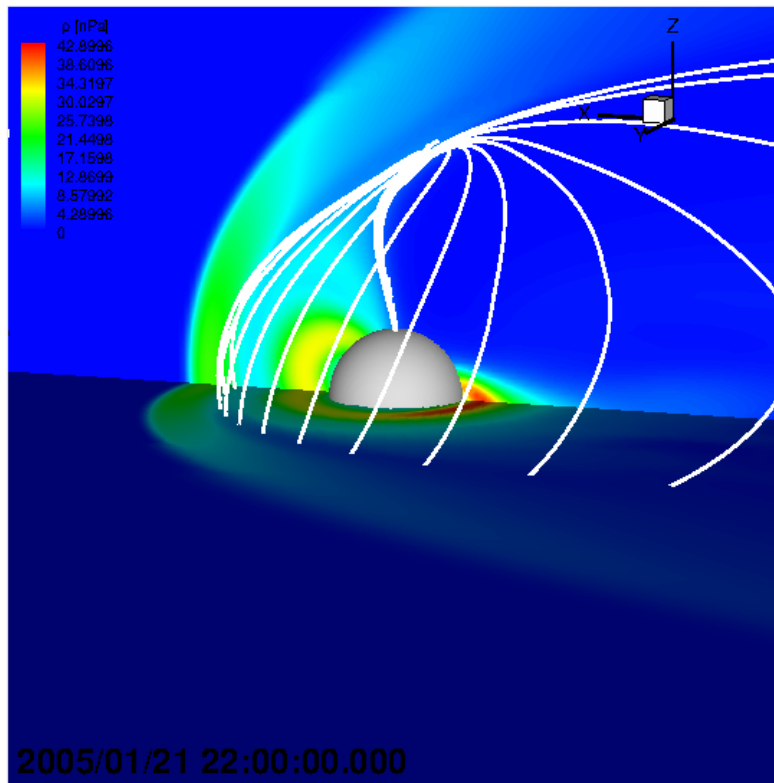
Plot sphere at origin? No Yes with radius

Text Label:

Label:

(wait ~1 minute unless fieldlines plotted)

Plot result for: T=0007:00:00 N=0015767 E=2005/01/21 22:00:00.000 (file: 3d__mhd_3_t00070000_n0015767.plt)

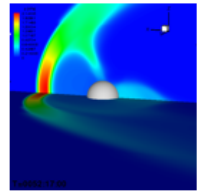


Time to create plot: 30 seconds

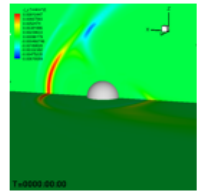
[Click here to view instructions to download data and recreate this figure locally.](#)



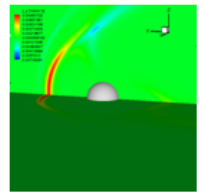
1 (0) [movie](#)



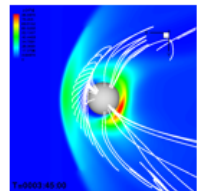
14 (0) [movie](#)



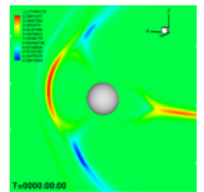
2 (0) [movie](#)



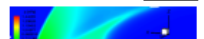
5 (0) [movie](#)



15 (0) [movie](#)



8 (0) [movie](#)



Search For MODEL: SWMF

Ionosphere plots can also contain field line tracing information.

VMR - VIRTUAL MODEL REPOSITORY [HOME](#)

[return](#)

SWMF Plotting Tool: Kozyra_run20050121_DeZeeuw-GMIEIM-New7hrsB / IE / 2D-idi all numeric sorting

Run Info **=> Select plot options below and click 'Update plot'**

Plot Regions
GM
 1D-logfile
 2D-y=0-plt
 2D-z=0-plt
 3D-plt
IE
 1D-logfile
2D-idi
 MinMax-Plot
IM

Extra Files
 view (3)

Plotfile: N=iteration T=Year:Month:Day - Hour:Min:Sec (421 files found)
 T=2005:01:21 - 22:00:00

Contour
 NOTE: Not expecting more than 11 variables in file, fix form

SigmaH [mhos] Yes No Range: Max Custom

SigmaP [mhos] Yes No Range: Max Custom

Jr [mA/m²] Yes No Range: Max Custom

Phi [kV] Yes No Range: Max Custom

E-Flux [W/m²] Yes No Range: Max Custom

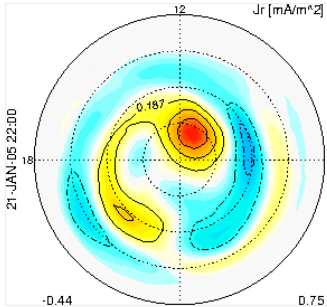
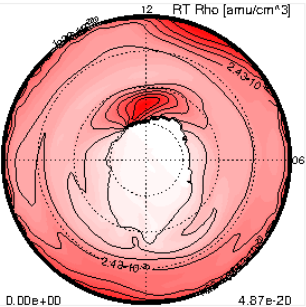
Ave-E [eV] Yes No Range: Max Custom

RT 1/B [1/T] Yes No Range: Max Custom

RT Rho [amu/cm³] Yes No Range: Max Custom

RT P [Pa] Yes No Range: Max Custom

Plot result for: T=2005:01:21 - 22:00:00 (file: it050121_220000_000.idl)

Time to create plot: 2 seconds

Click [here](#) to view instructions to download data and recreate this figure locally.

Plot Styles

1 (0) [movie](#)

2 (0) [movie](#)

3 (0) [movie](#)

4 (0) [movie](#)

5 (0) [movie](#)

6 (1) [movie](#)

7 (0) [movie](#)

Future Plans

- Working with the CCMC to make heliospheric model output available with data/model visualization.
- We are collaborating with Rice to make many stand-alone RCM runs available through the VMR.
- Many planned enhancements to the GITM visualization options.
- The CEDAR community is starting to conduct data/model validations and we plan to offer tools to support that effort.
- A new stand-alone tool to enable local use of VMR features on your local data is coming.