

Database of Notifications, Knowledge, and Information

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(software developers)

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*and the CCMC/SWRC team*

SW REDI for Mission Operators and  
Engineers (28-29 January 2014)

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

***Feedback and suggestions are welcome!***

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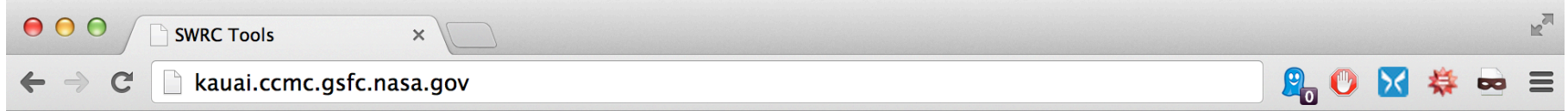
# DONKI

## Database of Notifications, Knowledge, and Information

- One-stop on-line tool for SWRC forecasters:
  - Chronicles the daily interpretations of space weather observations, analysis, models, forecasts, and notifications.
  - Automatic dissemination of forecasts and notifications
- Intelligent linkages, relationships, cause-and-effects between space weather activities
- Comprehensive knowledge-base search functionality to **support anomaly resolution** and space science research:
  - Space weather activity archive (flares, CMEs and simulation results, SEPs, geomagnetic storms,...) with links between activities
  - GSFC space weather alert and weekly report archive
- Enables remote participation by students, world-wide partners, model and forecasting technique developers

Demo: <http://kauai.ccmc.gsfc.nasa.gov/DONKI><sup>2</sup>

# Space Weather Web Tools from CCMC/SWRC:



Space Weather  
Scoreboard



Space Weather  
DONKI



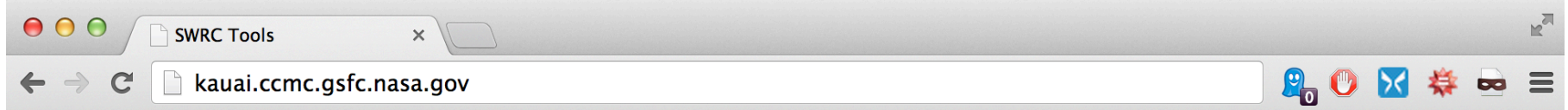
WSA-ENLIL+Cone  
1-Click



Stereo CAT  
CME Analysis Tool

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

# Space Weather Web Tools from CCMC/SWRC:



Space Weather  
Scoreboard



Space Weather  
DONKI



WSA-ENLIL+Cone  
1-Click



Stereo CAT  
CME Analysis Tool

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

Click here to get started searching the database by space weather activity type and date

Choose event type

- Go to:
- [DONKI Home](#)
  - [Search Space Weather Activity](#)
  - [Search Notification Archive](#)
  - [Login](#)
  - [New User Registration](#)

### Search Space Weather Activity Archive

Space Weather Event Type :

Optional start date in format (e.g. 2013-01-31) :

Optional end date in format (e.g. 2013-06-30) :

- ALL ---
- Solar Flare
- Solar Energetic Particle
- Coronal Mass Ejection
- Interplanetary Shock
- Magnetopause Crossing
- Geomagnetic Storm
- Radiation Belt Enhancement
- High Speed Stream
- WSA-ENLIL+Cone Model

Select start and end date for search

For example, Solar Energetic Particle (SEP), to see all SEP events above threshold values



# Search Space Weather Activity Archive

Space Weather Event Type :

Solar Energetic Particle

Optional start date in format (e.g. 2013-01-31) : 2013-05-01

Optional end date in format (e.g. 2013-06-30) : 2013-05-31

search

For example, Solar Energetic Particle (SEP), lists all SEP events above threshold values at various locations.

<u>Event Type</u>	<u>Activity ID</u>	<u>SEP Event Time</u>	<u>Associated Instrument</u>
<a href="#">Solar Energetic Particle</a>	2013-05-13T04:12:00-SEP-001	2013-05-13T04:12Z	STEREO B: IMPACT 13-100 MeV
<a href="#">Solar Energetic Particle</a>	2013-05-13T18:02:00-SEP-001	2013-05-13T18:02Z	STEREO B: IMPACT 13-100 MeV
<a href="#">Solar Energetic Particle</a>	2013-05-15T13:25:00-SEP-001	2013-05-15T13:25Z	GOES13: SEM/EPS >10 MeV
<a href="#">Solar Energetic Particle</a>	2013-05-22T15:05:00-SEP-001	2013-05-22T15:05Z	GOES13: SEM/EPS >10 MeV
<a href="#">Solar Energetic Particle</a>	2013-05-22T15:05:00-SEP-002	2013-05-22T15:05Z	GOES13: SEM/EPS >100 MeV
<a href="#">Solar Energetic Particle</a>	2013-05-22T15:30:00-SEP-001	2013-05-22T15:30Z	SOHO: COSTEP 15.8-39.8 MeV

All columns are sortable!  
(click column headings)



**Go to:**

- [DONKI Home](#)
- [Search Space Weather Activity](#)
- [Search Notification Archive](#)
- [Login](#)
- [New User Registration](#)

## Search Space Weather Activity Archive

Space Weather Event Type :

--- ALL ---

Optional start date in format (e.g. 2013-01-31) :

Optional end date in format (e.g. 2013-06-30) :

- ALL ---
- Solar Flare
- Solar Energetic Particle
- Coronal Mass Ejection
- Interplanetary Shock
- Magnetopause Crossing
- Geomagnetic Storm
- Radiation Belt Enhancement
- High Speed Stream
- ✓ WSA-ENLIL+Cone Model

For another example, select  
“WSA-ENLIL+Cone Model” to see  
all CME simulations in a certain  
date range.



# Search Space Weather Activity Archive

Space Weather Event Type :

WSA-ENLIL+Cone Model

Optional start date in format (e.g. 2013-01-31) : 2013-05-03

Optional end date in format (e.g. 2013-06-30) : 2013-05-31

search

[Generate Report for WSA-ENLIL+Cone Inputs](#)

Selecting “WSA-ENLIL +Cone Model” lists all CME simulations in a certain date range.

All columns are sortable!  
(click column headings)

<a href="#">Model Name</a>	<a href="#">Model Completion Time</a>	<a href="#">CME Input(s)</a>	<a href="#">Predicted Earth Impact</a>	<a href="#">Predicted Other Location(s) Impact</a>
<a href="#">WSA-ENLIL+Cone</a>	2013-05-03T09:33Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-02T14:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	
<a href="#">WSA-ENLIL+Cone</a>	2013-05-03T18:07Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T14:32Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-04T12:48Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> <li><a href="#">CME: 2013-05-03T22:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T06:39Z STEREO B: 2013-05-06T16:39Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-04T13:52Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> <li><a href="#">CME: 2013-05-03T22:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T15:31Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-05T11:58Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2011-05-24T11:24:00-CME-001(CME Analysis)</a></li> </ul>	Earth Shock Arrival Time = 2011-06-01T02:38Z Duration of disturbance (hr) = Minimum magnetopause standoff distance: Rmin(Re) = 6.6 Possible Kp index: (kp)90=1 (kp)135= (kp)180=5	



# Search Space Weather Activity Archive

Space Weather Event Type :

WSA-ENLIL+Cone Model


Optional start date in format (e.g. 2013-01-31) : 2013-05-03

Optional end date in format (e.g. 2013-06-30) : 2013-05-31

search

[Generate Report for WSA-ENLIL+Cone Inputs](#)

Shows impact prediction summary for each simulation

<a href="#">Model Name</a>	<a href="#">Model Completion Time</a>	<a href="#">CME Input(s)</a>	<a href="#">Predicted Earth Impact</a>	<a href="#">Predicted Other Location(s) Impact</a>
<a href="#">WSA-ENLIL+Cone</a>	2013-05-03T09:33Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-02T14:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	
<a href="#">WSA-ENLIL+Cone</a>	2013-05-03T18:07Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T14:32Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-04T12:48Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> <li><a href="#">CME: 2013-05-03T22:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T06:39Z STEREO B: 2013-05-06T16:39Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-04T13:52Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> <li><a href="#">CME: 2013-05-03T22:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T15:31Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-05T11:58Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2011-05-24T11:24:00-CME-001(CME Analysis)</a></li> </ul>	Earth Shock Arrival Time = 2011-06-01T02:38Z Duration of disturbance (hr) = Minimum magnetopause standoff distance: Rmin(Re) = 6.6 Possible Kp index: (kp)90=1 (kp)135= (kp)180=5	 DONKI

# Search Space Weather Activity Archive

Space Weather Event Type :

WSA-ENLIL+Cone Model


Optional start date in format (e.g. 2013-01-31) : 2013-05-03

Optional end date in format (e.g. 2013-06-30) : 2013-05-31

search

[Generate Report for WSA-ENLIL+Cone Inputs](#)

Click here to get full simulation results and graphics for a given run.

<a href="#">Model Name</a>	<a href="#">Model Completion Time</a>	<a href="#">CME Input(s)</a>	<a href="#">Predicted Earth Impact</a>	<a href="#">Predicted Other Location(s) Impact</a>
<a href="#">WSA-ENLIL+Cone</a>	2013-05-03T09:33Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-02T14:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	
<a href="#">WSA-ENLIL+Cone</a>	2013-05-03T18:07Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T14:32Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-04T12:48Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> <li><a href="#">CME: 2013-05-03T22:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T06:39Z STEREO B: 2013-05-06T16:39Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-04T13:52Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2013-05-03T18:00:00-CME-001(CME Analysis)</a></li> <li><a href="#">CME: 2013-05-03T22:36:00-CME-001(CME Analysis)</a></li> </ul>	No or little impact to Earth.	Spitzer: 2013-05-06T15:31Z
<a href="#">WSA-ENLIL+Cone</a>	2013-05-05T11:58Z	<ul style="list-style-type: none"> <li><a href="#">CME: 2011-05-24T11:24:00-CME-001(CME Analysis)</a></li> </ul>	Earth Shock Arrival Time = 2011-06-01T02:38Z Duration of disturbance (hr) = Minimum magnetopause standoff distance: Rmin(Re) = 6.6 Possible Kp index: (kp)90=1 (kp)135= (kp)180=5	 DONKI

Full simulation results for the selected run:

**WSA-ENLIL+Cone Model with Completion Time: 2013-05-04T12:48Z**

**Model Inputs:**

[2013-05-03T18:00:00-CME-001](#) with [CME Analysis](#): Lon.=-89.0, Lat.=18.0, Speed=760.0, HalfAngle=60.0, Time21.5=2013-05-03T22:30Z  
[2013-05-03T22:36:00-CME-001](#) with [CME Analysis](#): Lon.=-86.0, Lat.=-18.0, Speed=520.0, HalfAngle=22.0, Time21.5=2013-05-04T05:37Z

**Model Outputs:**

Earth Impact:  
No or little impact to Earth.

Other Location(s) Impact:  
Spitzer with estimated shock arrival time 2013-05-06T06:39Z  
STEREO B with estimated shock arrival time 2013-05-06T16:39Z

Inner Planets Link = [http://iswa.gsfc.nasa.gov/downloads/20130503\\_223000\\_anim.tim-den.gif](http://iswa.gsfc.nasa.gov/downloads/20130503_223000_anim.tim-den.gif)  
Inner Planets Link = [http://iswa.gsfc.nasa.gov/downloads/20130503\\_223000\\_anim.tim-vel.gif](http://iswa.gsfc.nasa.gov/downloads/20130503_223000_anim.tim-vel.gif)  
Inner Planets Link = [http://iswa.gsfc.nasa.gov/downloads/20130503\\_223000\\_anim.tim-den-Stereo\\_A.gif](http://iswa.gsfc.nasa.gov/downloads/20130503_223000_anim.tim-den-Stereo_A.gif)  
Inner Planets Link = [http://iswa.gsfc.nasa.gov/downloads/20130503\\_223000\\_anim.tim-den-Stereo\\_B.gif](http://iswa.gsfc.nasa.gov/downloads/20130503_223000_anim.tim-den-Stereo_B.gif)  
Inner Planets Link = [http://iswa.gsfc.nasa.gov/downloads/20130503\\_223000\\_anim.tim-vel-Stereo\\_A.gif](http://iswa.gsfc.nasa.gov/downloads/20130503_223000_anim.tim-vel-Stereo_A.gif)  
Inner Planets Link = [http://iswa.gsfc.nasa.gov/downloads/20130503\\_223000\\_anim.tim-vel-Stereo\\_B.gif](http://iswa.gsfc.nasa.gov/downloads/20130503_223000_anim.tim-vel-Stereo_B.gif)  
Timelines Link = [http://iswa.gsfc.nasa.gov/downloads/20130503\\_223000\\_ENLIL\\_CONE\\_timeline.gif](http://iswa.gsfc.nasa.gov/downloads/20130503_223000_ENLIL_CONE_timeline.gif)  
Timelines Link = [http://iswa.gsfc.nasa.gov/downloads/20130503\\_223000\\_ENLIL\\_CONE\\_Kp\\_timeline.gif](http://iswa.gsfc.nasa.gov/downloads/20130503_223000_ENLIL_CONE_Kp_timeline.gif)

CME input parameters are listed for each activity ID (click ID for more CME information)

Impact prediction times

Links to simulation movies and plots



DONKI also shows intelligent linkages, relationships, cause-and-effects between space weather activities

## Search Space Weather Activity Archive

Space Weather Event Type :

Optional start date in format (e.g. 2013-01-31) :

Optional end date in format (e.g. 2013-06-30) :

For example, search for solar flares during May 2013, and click [here](#) for more information on the M7.3 flare

<a href="#">Event Type</a>	<a href="#">Activity ID</a>	<a href="#">FLR Start Time</a>	<a href="#">Associated Instrument</a>	<a href="#">FLR Peak Time</a>	<a href="#">FLR End Time</a>	<a href="#">Class</a>	<a href="#">Source Location</a>
<a href="#">Solar Flare</a>	2013-05-03T17:29:00-FLR-001	2013-05-03T17:29Z	GOES15: SEM/XRS 1.0-8.0	2013-05-03T17:32Z		M5.7	N15E85
<a href="#">Solar Flare</a>	2013-05-13T01:53:00-FLR-001	2013-05-13T01:53Z	GOES15: SEM/XRS 1.0-8.0	2013-05-13T02:17Z		X1.6	N10E89
<a href="#">Solar Flare</a>	2013-05-13T15:40:00-FLR-001	2013-05-13T15:40Z	GOES15: SEM/XRS 1.0-8.0	2013-05-13T16:05Z		X2.8	N10E89
<a href="#">Solar Flare</a>	2013-05-14T01:00:00-FLR-001	2013-05-14T01:00Z	GOES15: SEM/XRS 1.0-8.0	2013-05-14T01:11Z		X3.2	N10E89
<a href="#">Solar Flare</a>	2013-05-15T01:10:00-FLR-001	2013-05-15T01:10Z	GOES15: SEM/XRS 1.0-8.0	2013-05-15T01:48Z		X1.2	N11E63
<a href="#">Solar Flare</a>	2013-05-22T12:30:00-FLR-001	2013-05-22T12:30Z	GOES15: SEM/XRS 1.0-8.0	2013-05-22T13:38Z		M7.3	N13W75



DONKI

More details and relationships for the M7.3 flare:

**Solar Flare**

Start Time: 2013-05-22T12:30Z ( GOES15: SEM/XRS 1.0-8.0 )

Peak Time: 2013-05-22T13:38Z

End Time:

Intensity: M7.3 class

Source region N13W75

Activity ID: 2013-05-22T12:30:00-FLR-001 (version 1)

Note:

*Submitted on 2013-07-15T18:32Z by Dan Comberiate*

*Click the alert ID to see a copy of the flare alert.*

An Alert with ID [20130522-AL-001](#) was sent on 2013-05-22T15:30Z

**All directly linked events:**

<a href="#">2013-05-22T13:24:00-CME-001</a>
<a href="#">2013-05-22T15:05:00-SEP-001</a>
GOES13: SEM/EPS >10 MeV
<a href="#">2013-05-22T15:05:00-SEP-002</a>
GOES13: SEM/EPS >100 MeV
<a href="#">2013-05-22T15:30:00-SEP-001</a>
SOHO: COSTEP 15.8-39.8 MeV

Related events are listed at the bottom. This flare was associated with a CME and also an SEP event near Earth

*Click on the activity IDs for information on the CME or SEPs.*



Alternatively, search the notification database by space weather activity type and date

Choose event type, or weekly report

Go to:

- [DONKI Home](#)
- [Search Space Weather Activity](#)
- [Search Notification Archive](#)
- [Login](#)
- [New User Registration](#)

## Search Space Weather Notification Archive

Notification for Space Weather Event Type :

(Optional) Search start date from (e.g. 2013-01-31) :

(Optional) Search end date to (e.g. 2013-06-30) :

--- ALL ---

Select start and end date for search

For example, select ALL to list all alert types and weekly reports.

- ✓ --- ALL ---
- Solar Flare
- Solar Energetic Particle
- Coronal Mass Ejection
- Interplanetary Shock
- Magnetopause Crossing
- Geomagnetic Storm
- Radiation Belt Enhancement
- SW Report

# Search Space Weather Notification Archive

Notification for Space Weather Event Type :

(Optional) Search start date from (e.g. 2013-01-31) :

(Optional) Search end date to (e.g. 2013-06-30) :

Selecting ALL lists all alert types and weekly reports in a certain date range.

<a href="#">Message ID</a>	<a href="#">Sent Date</a>	<a href="#">For SW Event(s)</a>	<a href="#">Sent By</a>
<a href="#">20130514-AL-003</a>	2013-05-14T04:55Z	<a href="#">CMEAnalysis</a> <a href="#">CME</a>	Dan Comberiate
<a href="#">20130514-AL-002</a>	2013-05-14T03:50Z	<a href="#">CMEAnalysis</a> <a href="#">CME</a>	Dan Comberiate
<a href="#">20130514-AL-001</a>	2013-05-14T01:45Z	<a href="#">FLR</a>	Dan Comberiate
<a href="#">20130513-AL-008</a>	2013-05-13T19:15Z	<a href="#">CMEAnalysis</a> <a href="#">CME</a>	Dan Comberiate
<a href="#">20130513-AL-007</a>	2013-05-13T18:35Z	<a href="#">SEP</a>	Dan Comberiate
<a href="#">20130513-AL-006</a>	2013-05-13T18:20Z	<a href="#">CMEAnalysis</a> <a href="#">CME</a>	Dan Comberiate
<a href="#">20130513-AL-005</a>	2013-05-13T16:25Z	<a href="#">FLR</a>	Dan Comberiate
<a href="#">20130513-AL-004</a>	2013-05-13T06:00Z	<a href="#">CMEAnalysis</a> <a href="#">CME</a>	Dan Comberiate
<a href="#">20130513-AL-003</a>	2013-05-13T05:20Z	<a href="#">CMEAnalysis</a> <a href="#">CME</a>	Dan Comberiate
<a href="#">20130513-AL-002</a>	2013-05-13T04:55Z	<a href="#">SEP</a>	Dan Comberiate
<a href="#">20130513-AL-001</a>	2013-05-13T02:52Z	<a href="#">FLR</a>	Dan Comberiate
<a href="#">20130508-7D-001</a>	2013-05-08T16:06Z	<a href="#">Report</a>	chiu wiegand
<a href="#">20130503-AL-001</a>	2013-05-03T18:20Z	<a href="#">FLR</a>	Dan Comberiate
<a href="#">20130501-7D-001</a>	2013-05-01T22:15Z	<a href="#">Report</a>	chiu wiegand

Click on the message ID to see a copy the alert.

All columns are sortable!  
(click column headings)





# Demo: DONKI

Database of Notifications, Knowledge, and Information

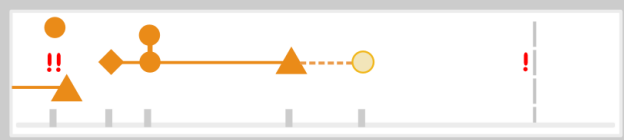
<http://kauai.ccmc.gsfc.nasa.gov/DONKI/>

*Example: [2013-05-22 M7.3 flare](#) and related activity,  
[2012-03-07 X5.4 flare](#).*



- Stream**
- Add Event Chain
- Add Flare
- Add CME
- Add SEP
- Add GST
- Add RBE
- Add MPC
- Add IPS
- Add ENLIL
- Add Generic Entry
- Add Weekly Report
- Add Daily Report
- Merge Nuggets
- Email Settings

iSWA  
 CME TOOL  
 Enlil 1-Click Submission



Reports Weekly Daily Swx Activity Flares CMEs Alerts Event Chains

**Alert** Nugget ID  
 Submitted automatically by Computer A  
 Date/Time of submission

Information here  
 Parameters here  
 More parameters here  
[View Data](#)

Comments-0 Add Comment Edit

**Weekly Report** Nugget ID  
 Submitted manually by Leila  
 Date/Time of submission

Information here  
 Parameters here

Apart of **Event Chain 124**:

Comments-0 Add Comment Edit

**Event Chain** Nugget ID  
 Created manually by Leila  
 Date/Time of submission

Date/Time, Duration of Event Chain

- M Class Flare: 11-1-12 20:00:00
- CME: 11-1-12 24:00:00
- CME: 11-1-12 24:00:00
- Predicted Impact: 11-4-12

Comments-0 Add Comment Edit

**CME** Nugget ID  
 Submitted automatically by Enlil Cone Model Run  
 Date/Time of submission

Information here  
 Parameters here  
[View Data](#)

Apart of **Event Chain 124**:

Comments-1 Add Comment Edit

Leila - We might need to re-run this model.

**Flare** Nugget ID  
 Submitted manually by Leila  
 Date/Time of submission

Information here  
 Parameters here  
[View Data](#)

Apart of **Event Chain 124**:
















Comments-1 Add Comment Edit



# DONKI

## Future Directions

- Search with filters will be added in the near future
- More data export options
- Clear flags indicating data quality

-  Stream
-  Add Event Chain
-  Add Flare
-  Add CME
-  Add SEP
-  Add GST
-  Add RBE
-  Add MPC
-  Add IPS
-  Add ENLIL
-  Add Generic Entry
-  Add Weekly Report
-  Add Daily Report
-  Merge Nuggets
-  **Email Settings**

Change Settings

Reset





















 Email Settings

Email Address:



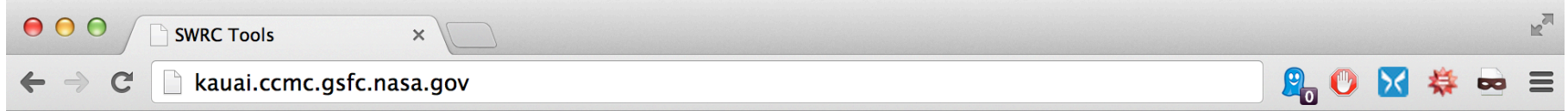
Richard.E.Mullinix@nasa.gov

edit

	Flare Alerts	<input type="range"/>	
	SEPs Alerts	<input type="range"/>	
	Weekly Reports		
	Daily Logs		
	Flare Nugget	<input type="range"/>	
	CME Nugget	<input type="range"/>	
	Event Chain Creation		
	Event Chain Edit/Addition		
	Generic Nugget		
	Nugget Merging		



# Space Weather Web Tools from CCMC/SWRC:



Space Weather  
Scoreboard



Space Weather  
DONKI



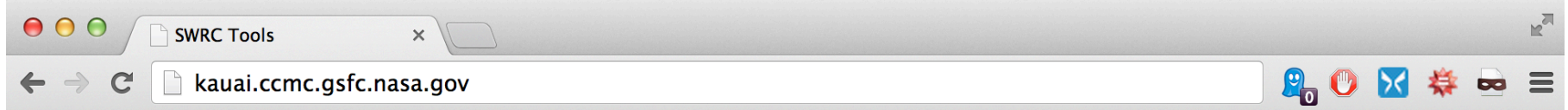
WSA-ENLIL+Cone  
1-Click



Stereo CAT  
CME Analysis Tool

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

# Space Weather Web Tools from CCMC/SWRC:



Space Weather  
Scoreboard



Space Weather  
DONKI

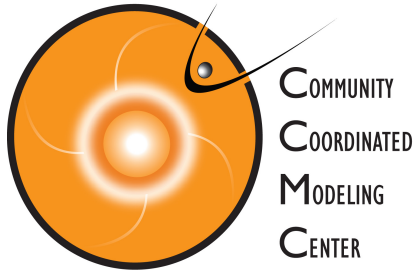


WSA-ENLIL+Cone  
1-Click



Stereo CAT  
CME Analysis Tool

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



COMMUNITY  
COORDINATED  
MODELING  
CENTER

# CME Arrival Time Scoreboard

*developed at the CCMC*

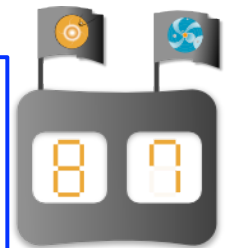


The CME scoreboard is a research-based forecasting methods validation activity which provides a central location for the community to:

- submit their forecast in real-time
- quickly view all forecasts at once in real-time
- compare forecasting methods when the event has arrived

<http://swrc.gsfc.nasa.gov/main/cmemodels>

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



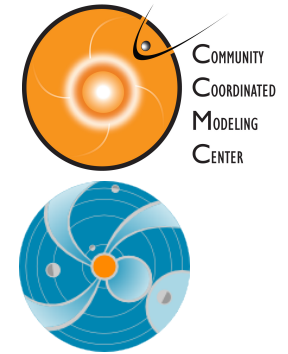
**Please join! All prediction methods are welcome and all are encouraged to participate.** Currently registered models include:

*Anemomilos, ESA Model, H3DMHD (HAFv.3 +3DMHD), HAFv.3, STOA, WSA-Enlil + Cone Model, BHV Model, DBM, ECA Model, Expansion Speed Prediction Model, HelTomo, HI J-map technique, TH Model*

The scoreboard also includes predictions from the SWRC (Space Weather Research Center) which is a CCMC branch carrying out in-house research-based space weather ops team



# Community predictions for the January 7, 2014 CME (X1.2 flare):



## Active CMEs:

No Active CME

## Past CMEs:

CME: 2014-01-07T18:24:00-CME-001							
Actual Shock Arrival Time: 2014-01-09T19:32Z							
Observed Geomagnetic Storm Parameters: ----							
Predicted Shock Arrival Time	Difference (hrs)	Submitted On	Lead Time (hrs)	Predicted Geomagnetic Storm Parameter(s)	Method	Submitted By	
2014-01-09T19:26Z (-10.0h, +10.0h)	-0.10	2014-01-07T21:00Z	46.53	----	STOA	Leila Mays (GSFC)	<a href="#">Detail</a>
2014-01-09T13:00Z (-7.0h, +7.0h)	-6.53	2014-01-08T23:17Z	20.25	Max Kp Range: 6.0 - 8.0	WSA-ENLIL + Cone	Duty Forecaster (ASFC)	<a href="#">Detail</a>
2014-01-09T12:00Z (-7.0h, +7.0h)	-7.53	2014-01-08T06:32Z	37.00	----	WSA-ENLIL + Cone	RWC Jeju (KSWC)	<a href="#">Detail</a>
2014-01-09T11:22Z (-11.7h, +9.1h)	-8.17	2014-01-09T18:57Z	0.58	Max Kp Range: 3.0 - 5.0	Ensemble WSA-ENLIL + Cone (GSFC SWRC)	Leila Mays (GSFC)	<a href="#">Detail</a>
2014-01-10T04:04Z (-16.0h, +36.0h)	8.53	2014-01-08T14:56Z	28.60	Max Kp Range: 8.0 - 8.0 Dst min. in nT: -300	<a href="#">COMESSEP</a>	Andy Devos (SIDC)	<a href="#">Detail</a>
2014-01-09T08:02Z	-11.50	2014-01-08T16:37Z	26.92	----	Expansion Speed Prediction Model	Alisson Dallago (INPE)	<a href="#">Detail</a>
2014-01-09T08:00Z	-11.53	2014-01-08T01:31Z	42.02	Max Kp Range: 6.0 - 7.0	<a href="#">WSA-ENLIL + Cone (NOAA/SWPC)</a>	Leila Mays (GSFC)	<a href="#">Detail</a>
2014-01-09T04:30Z (-2.5h, +2.5h)	-15.03	2014-01-08T05:02Z	38.50	Max Kp Range: 5.0 - 8.0	<a href="#">Other (SIDC)</a>	Leila Mays (GSFC)	<a href="#">Detail</a>
2014-01-09T04:00Z (-6.0h, +6.0h)	-15.53	2014-01-08T09:42Z	33.83	----	<a href="#">DBM</a>	Manuela Temmer (UNIGRAZ)	<a href="#">Detail</a>
2014-01-09T02:00Z	-17.53	2014-01-08T17:53Z	25.65	Max Kp Range: 8.0 - 9.0	<a href="#">BHV</a>	Volker Bothmer (UGOE)	<a href="#">Detail</a>
2014-01-09T01:00Z	-18.53	2014-01-08T23:00Z	20.53	Dst min. in nT: -142 Dst min. time: 2014-01-09T12:00Z	<a href="#">Anemomilos</a>	WKent Tobiska (SET SWD)	<a href="#">Detail</a>
2014-01-09T00:38Z (-7.0h, +7.0h)	-18.90	2014-01-08T00:41Z	42.85	Max Kp Range: 6.0 - 8.0	WSA-ENLIL + Cone (GSFC SWRC)	Leila Mays (GSFC)	<a href="#">Detail</a>
2014-01-09T00:17Z (-6.9h, +9.2h)	-19.25	2014-01-08T04:11Z	39.35	Max Kp Range: 6.0 - 8.0	Ensemble WSA-ENLIL + Cone (GSFC SWRC)	Leila Mays (GSFC)	<a href="#">Detail</a>
2014-01-08T22:00Z	-21.53	2014-01-08T03:17Z	40.25	Dst min. in nT: -146 Dst min. time: 2014-01-09T11:00Z	<a href="#">Anemomilos</a>	WKent Tobiska (SET SWD)	<a href="#">Detail</a>
2014-01-08T12:30Z	-31.03	2014-01-08T05:58Z	37.57	----	ESA	Leila Mays (GSFC)	<a href="#">Detail</a>

Columns are sortable

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