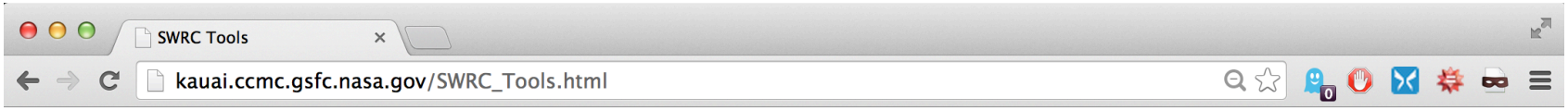
Space Weather Web Tools from CCMC/SWRC:



Space Weather Scoreboard

Space Weather DONKI

WSA-ENLIL Cone Fast Track

Stereo CAT

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

Community Coordinated Modeling Center

CME Arrival Time Scoreboard

developed at the CCMC

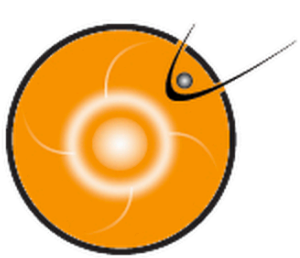
The CME scoreboard is a research-based forecasting methods validation activity which provides a central location for the community to:

- 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/CMEscoreboard

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, SARM, SPM, SPM2, 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



Space Weather ScoreBoard

Login

Space Weather ScoreBoard

CME arrival time predictions from the research community:
The Space Weather ScoreBoard (developed at the Community Coordinated Modeling Center, CCMC) 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

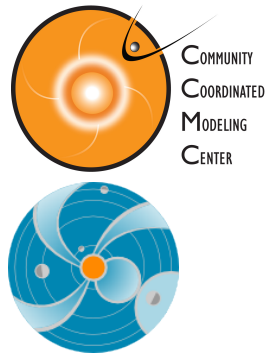
Using this system:

- Anyone can view prediction tables
- Users can enter in your CME shock arrival time forecast after logging in:
  - Registered Users: Begin by finding your CME under the "Active CMEs" section, then click "Add Prediction" and select your forecasting "Method Type" from the list. (Click here to register for an account.)
  - Power Users: If you do not see your CME listed under the "Active CMEs" section, click "Add CME" to get started (Click here to request power user privileges). To enter the actual CME shock arrival time, click "*Edit CME*" after you are done entering your prediction(s).
- Click here to see a list of registered methods. If you would like to register your prediction method, please send an email to M. Leila Mays or Yihua Zheng with your model/technique details.

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

Anyone can view predictions, please register to submit predictions.

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



Columns are sortable!(click column headings)

Average of all predictions is calculated for the user

CME: 2014-01-07T18:24:00-CME-001

Actual Shock Arrival Time: 2014-01-09T19:32Z

Observed Geomagnetic Storm Parameters:
Max Kp: 3.0

Predicted Shock Arrival Time	Difference (hrs)	Submitted On	Lead Time (hrs)	Predicted Geomagnetic Storm Parameter(s)	Method	Submitted By	
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	COMESEP	Andy Devos (SIDC)	Detail
2014-01-09T19:26Z (-10.0h, +10.0h)	-0.10	2014-01-07T21:00Z	46.53	----	STOA	Leila Mays (GSFC)	Detail
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)	Detail
2014-01-09T12:00Z (-7.0h, +7.0h)	-7.53	2014-01-08T06:32Z	37.00	----	WSA-ENLIL + Cone	RWC Jeju (KSWC)	Detail
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)	Detail
2014-01-09T08:02Z	-11.50	2014-01-08T16:37Z	26.92	----	Expansion Speed Prediction Model	Alisson Dallago (INPE)	Detail
2014-01-09T08:00Z	-11.53	2014-01-08T01:31Z	42.02	Max Kp Range: 6.0 - 7.0	WSA-ENLIL + Cone (NOAA/SWPC)	Leila Mays (GSFC)	Detail
2014-01-09T06:35Z	-12.95	---	---	Max Kp Range: 6.0 - 7.625	Average of all Methods	Auto Generated (CCMC)	Detail
2014-01-09T04:30Z (-2.5h, +2.5h)	-15.03	2014-01-08T05:02Z	38.50	Max Kp Range: 5.0 - 8.0	Other (SIDC)	Leila Mays (GSFC)	Detail
2014-01-09T04:00Z (-6.0h, +6.0h)	-15.53	2014-01-08T09:42Z	33.83	----	DBM	Manuela Temmer (UNIGRAZ)	Detail
2014-01-09T02:00Z	-17.53	2014-01-08T17:53Z	25.65	Max Kp Range: 8.0 - 9.0	BHV	Volker Bothmer (UGOE)	Detail
2014-01-09T01:00Z	-18.53	2014-01-08T23:00Z	20.53	Dst min. in nT: -142 Dst min. time: 2014-01-09T12:00Z	Anemomilos	WKent Tobiska (SET SWD)	Detail
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)	Detail
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)	Detail
2014-01-08T22:00Z	-21.53	2014-01-08T03:17Z	40.25	Dst min. in nT: -146 Dst min. time: 2014-01-09T11:00Z	Anemomilos	WKent Tobiska (SET SWD)	Detail
2014-01-08T12:30Z	-31.03	2014-01-08T05:58Z	37.57	----	ESA	Leila Mays (GSFC)	Detail

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

COMMUNITY COORDINATED MODELING CENTER

Begin by clicking **Add Prediction** under the "Active CMEs" section and select your forecasting "Method Type" from the list.
While logged in, if you do not see any CMEs listed under the "Active CMEs" section, click **Add CME** to get started.

Using this system:

- Anyone can view prediction tables
- Users can enter in your CME shock arrival time forecast after logging in:
  - Registered Users: Begin by finding your CME under the "Active CMEs" section, then click "Add Prediction" and select your forecasting "Method Type" from the list. (Click here to register for an account.)
  - Power Users: If you do not see your CME listed under the "Active CMEs" section, click "Add CME" to get started (Click here to request power user privileges). To enter the actual CME shock arrival time, click "*Edit CME*" after you are done entering your prediction(s).
- Click here to see a list of registered methods. If you would like to register your prediction method, please send an email to M. Leila Mays or Yihua Zheng with your model/technique details.

Active CMEs:

Note: If you can't find your CME below, please click "Add CME" to add your CME. To enter the actual CME shock arrival time, click "*Edit CME*" after you are done entering your prediction(s).

CME: 2015-01-01T00:00:00-CME-001
Edit CME
Delete CME
Add Prediction
No Prediction Entered for this CME yet!

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

COMMUNITY COORDINATED MODELING CENTER

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

Prediction Form for CME (2014-01-01T00:00:00-CME-001)

Enter submission time in format (yyyy-MM-dd'T'HH:mm'Z' i.e. 2012-07-12T16:52Z) :

Method Type (details):

Prediction notes: (Please include all initial conditions/parameters used in your prediction)

--- Select ---
Anemomilos
Ballistic projection
BHV
DBM
ECA
ESA
H3DMHD (HAFv.3+3DMHD)
HAFv.3
HAFv2w
HI J-map
Other
Other (ips.gov.au)
Other (SIDC)
STOA
TH
WSA-Enlil + Cone
WSA-Enlil + Cone (GSFC SWRC)
WSA-Enlil + Cone (NOAA/SWPC)

Enter predicted CME shock arrival time in format (yyyy-MM-dd'T'HH:mm'Z' i.e. 2012-07-12T16:52Z) :

Positive Error Bar in hours (optional):

Negative Error Bar in hours (optional):

Kp Range Lower Limit (optional):

Kp Range Upper Limit (optional):

Dst min. in nT (optional):

Dst min. time in format (yyyy-MM-dd'T'HH:mm'Z' i.e. 2012-07-12T16:52Z) (optional):

submit

cancel

Scoreboard – Future Improvements

- Automatically accepting and parsing predictions (less work for groups who can populate directories with their predictions)
    - Manually created predictions (e.g. from SIDC)
    - Automatically created predictions (e.g. from Anemomilos, SARM).
        - Challenges: filtering out non-CME related predictions, matching predictions with CME start time.
- Showing table data in dynamic plot form, e.g. Prediction Error vs. Time of Prediction, Prediction Error vs Input parameters.
- Suggestions: We can add an “analysis” field to provide a few sentences about the arrival and predictions. This can also be found in DONKI as notes/comments. We can add the ability for users to also submit their prediction “confidence”.
- Any interest in including STEREO A and B predictions?

- Your suggestions?

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/CMEscoreboard

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, SARM, SPM, SPM2, 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