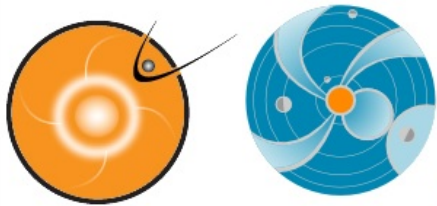


# International Working Group - Introduction

Ian McCrea

# We are already doing it!!



## CME ScoreBoard

[Login](#)

### CME Scoreboard

*CME arrival time predictions from the research community:*

The CME 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 an account.)

- .....and Solar Flare Scoreboard, SEP Scoreboard

# We are already doing it!!

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



COMMUNITY  
COORDINATED  
MODELING  
CENTER

[Related Links](#) | [Frequently Asked Questions](#) | [Community Feedback](#)

[About](#) | [Models at CCMC](#) | [Request A Run](#) | [View Results](#) | [Instant Run](#) | [Metrics and Validation](#) | [Education](#) | [R2O Support](#) | [Mission Support](#) | [Community Support](#)

## HELCATS Support Heliospheric Cataloguing, Analysis and Techniques Service



### WSA-ENLIL+CONE Simulations Relevant to HELCATS Science

CR 2070 high resolution ambient simulations - 3 hr output (ENLIL v2.8f):

Full rotation magnetograms:

- [WSAfr-GONG](#)
- [WSAfr-MWO](#)
- [WSAfr-NSO](#)

Daily-update magnetograms

24 hr cadence input:

- [WSAdt-GONGb](#)
- [WSAdt-GONGz](#)

6 hr cadence input:

- [WSAdt-GONGb](#)

Note: 1 hr cadence GONG maps are not available for this CR

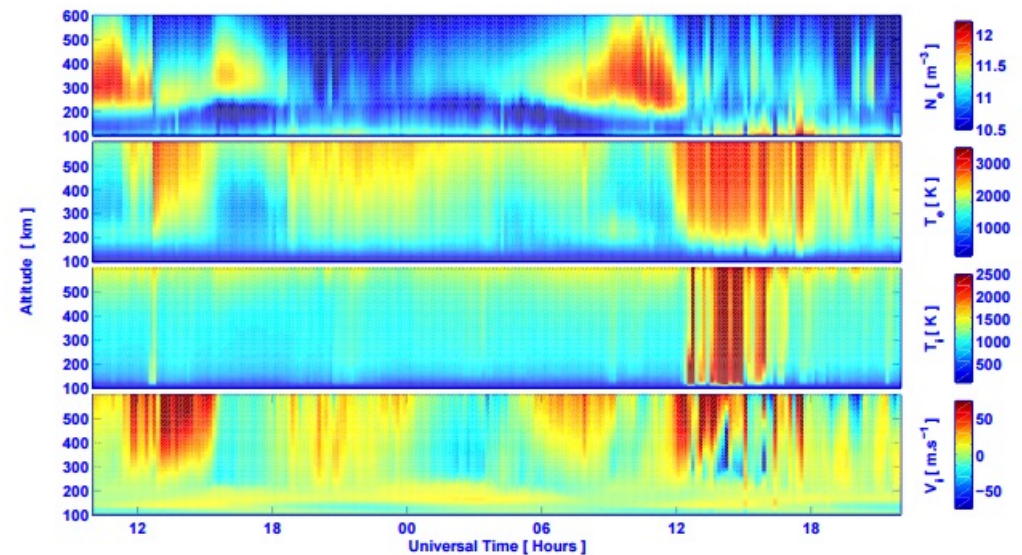
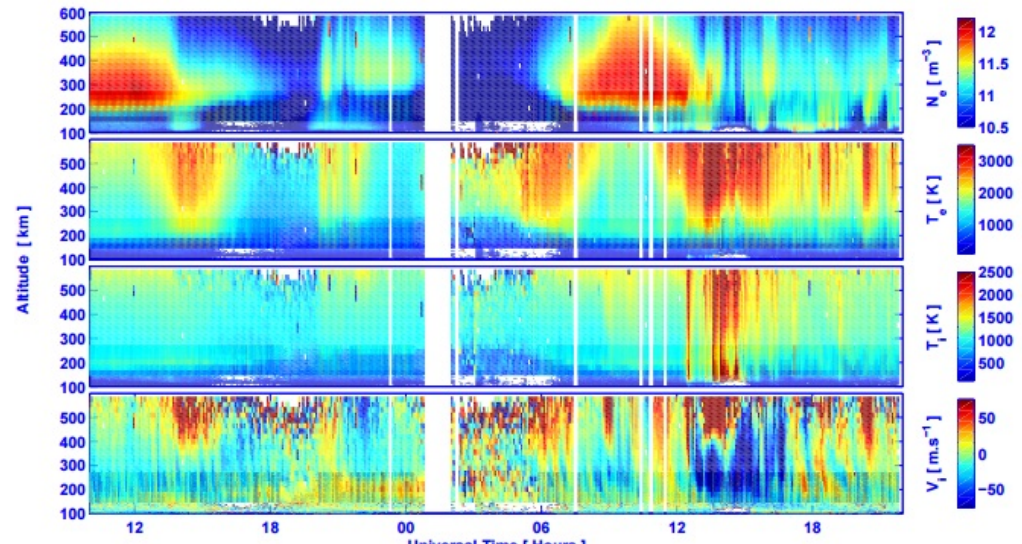
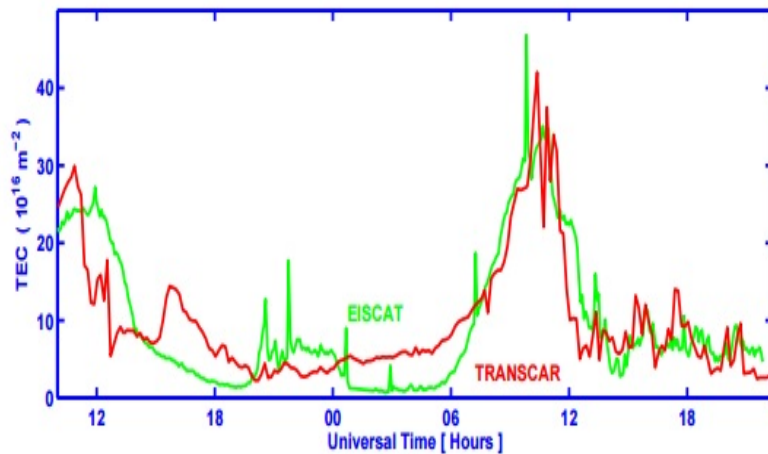
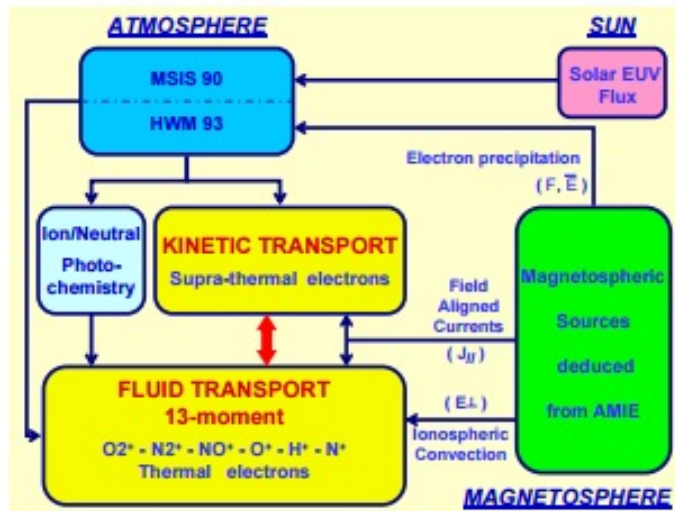
# Next steps?

- Widen the range of models in CCMC
  - Larger models can be a problem, though
  - Drawing more models into a common framework
- Distributed runs on request
- Internationalise the Kameleon (Open Source)
- International support for “feeding the DONKI”
- Common standards for metrics and validations
- Common visualisation tools
- Broaden inter–agency collaboration

## ISR WDO

Operating days		Kp_max	F10.7/F107ave	Stations
2001	04/17-19	7.3	133/169	JRO, MLH, SON
	09/25-27	7.3	277/210	ESR
	10/10-12	5.3	174/217	MLH, SON
2002	04/17-24	7.3	195/184	JRO, ARO, MLH, IST, SON, ESR
	10/05-31	6.3	159/167	JRO, MLH, SON
2003	03/19-23	5.0	90/128	JRO, SON
	05/27-29	5.7	134/127	SON
	09/22-26	5.7	134/131	JRO, SON
	10/21-23	6.0	150/135	MLH, SON
	11/11-16	6.0	100/133	JRO, SON
2004	11/09-13	8.7	138/102	JRO, MLH, SON
2005	06/13-18	6.0	101/99	JRO, MLH, SON
	09/01-30	7.7	120/89	JRO, MLH, SON
2006	03/17-31	6.3	86/81	JRO, MLH, SON
2011	08/01-10	7.7	113/105	ARO, MLH
2012	06/12-14	5.0	147/129	ARO, MLH

# Previous EISCAT-model comparison (Blelly et al, Ann. Geophys. 23, 419-431, 1995)



# The International Working Group at the CCMC

The International Working Group at the Community Coordinated Modeling Center (ICCMC) is a self-organizing non-bureaucratic entity for facilitating and coordinating the development of a global network of web-based resources and open-source platforms to push the frontiers of joint space weather research, analysis, forecasting, and education.

# Why?

ICCMC research-based initiatives are motivated by the space weather community's needs for:

- prompt responses to new trends and requirements in the rapidly growing field of space weather;
- a global forum and a hub for collaborative development of space weather products and services;
- an access portal to simulations results and measurements required for support of space weather products and services;
- rapid evaluations and experimental implementations of newly emerging ideas and techniques.

ICCMC is capitalizing on broad recognition of the CCMC as an international community asset and on CCMC's:

- experience in providing highly utilized web-based services;
- leadership in facilitating community-wide campaigns;
- trusted relationships with model developers.



# What?

- To create a highly flexible and responsive environment for collaboration on outstanding problems in space weather, enabling the sharing of data, simulation results, information and expertise.
- To promote rapid implementation, prototyping, and assessment of new space weather models, products, forecasting techniques and services.
- To facilitate creation of highly dynamic and responsive international teams, free as possible from administrative and hierarchical constraints.
- To serve as a promotional resource aiming to accelerate progress and maximize return on investments for established and newly emerging international efforts related to space weather.
- To support space weather education, training and skill sharing.
- To serve as a worldwide joint asset for space weather operational centers and organizations such as COSPAR, SCOSTEP and ILWS.
- To assist with the realization of the current generation of international space weather roadmaps, and to push frontiers in support of the next generation of strategic planning.

# How?

- By building new ventures and generating new ideas upon acquired experience, existing assets, and newly emerging resources and capabilities.
- By adopting a flexible and agile approach.
- By virtual collaborations, facilitated via shared web areas and internet communication tools.
- By taking advantage of opportunities for in-person meetings at international conferences and workshops.
- By engaging highly motivated groups and individuals committed to active participation in ICCMC. By making participation dependent on active collaboration, membership will be dynamic as project priorities evolve.
- By working in accordance with the current philosophy of the CCMC, guaranteeing full respect and unconditional credit to the intellectual property of model developers and data providers.

# The International Working Group at the CCMC

The International Working Group at the Community Coordinated Modeling Center (ICCMC) is a self-organizing non-bureaucratic entity for facilitating **and** coordinating the development of a global network of web-based resources and open-source platforms to push the frontiers of joint space weather research, analysis, forecasting, and education.

**I-REDI!!!**

# Next steps?

- Widen the range of models in CCMC
  - Larger models can be a problem, though
  - Drawing more models into a common framework
- Distributed runs on request
- Internationalise the Kameleon (Open Source)
- International support for “feeding the DONKI”
- Common standards for metrics and validations
- Common visualisation tools
- Broaden inter–agency collaboration



## 2016 Incoherent Scatter Co-Ordinated Observation Days

Month	Start Day	Length (days)	New Moon	Experiment
January	7 <sup>th</sup> (Thu)	5	9 <sup>th</sup> (Sat)	Flow channels
February	5 <sup>th</sup> (Fri)	5 (alert window?)	8 <sup>th</sup> (Mon)	Gravity waves
March	5 <sup>th</sup> -19 <sup>th</sup> (both Sat)	5 (alert window)	8 <sup>th</sup> (Tue)	Meridian circle
April			7 <sup>th</sup> (Thu)	
May			6 <sup>th</sup> (Fri)	
June			4 <sup>th</sup> (Sat)	
July	5 <sup>th</sup> (Tue)	2	4 <sup>th</sup> (Mon)	Database
August			2 <sup>nd</sup> (Tue)	
September			1 <sup>st</sup> (Thu) 30 <sup>th</sup> (Fri)	
October			30 <sup>th</sup> (Sun)	
November	28 <sup>th</sup> (Mon)	5	29 <sup>th</sup> (Tue)	Irregularities
December			28 <sup>th</sup> (Wed)	
TOTAL		22		