MONDAY

START	END	TOPIC	PRESENTER/s	AFFILIATION
7:30 am	8:00 am	Registration, Breakfast, Coffee		
Introduction, Director's Report. Agencies' and Community's perspectives on the CCMC. Keynote presentations. Chair: Jan Sojka (USU)				
8:00 am	8:10 am	Introductory Remarks	Michael Hesse	NASA GSFC
8:10 am	8:30 am	NASA Heliophysics view of CCMC	Steven Clarke	NASA HQ
8:30 am	8:40 am	*Questions and Discussion on NASA Heliophysics perspectives*		
8:40 am	9:20 am	Director's report	Masha Kuznetsova	CCMC
9:20 am	9:30 am	*Questions to Director*		
9:30 am	9:45 am	CCMC Advisory Group introduction	Ray Walker	UCLA
9:45 am	10:10 am	Coffee Break		
10:10 am	10:30 am	NASA Technical Fellow for Space Environment view of CCMC	Joe Minow	NASA LARC
10:30 am	10:50 am	NASA HEOMD view of CCMC	John Allen	NASA HQ
10:50 am	11:10 am	US AF view of CCMC	Col. Michael Gremillion	USAF
11:10 am	11:30 am	NOAA/SWPC view of CCMC	Howard Singer	NOAA SWPC
11:30 am	11:45 am	Space weather commercial sector view of CCMC	W. Kent Tobiska	SET, USU SWC
11:45 am	12:10 pm	CCMC as a resource for research	Joe Borovsky (webex)	University of Michigan
12:10 pm	12:20 pm	Discussion		
12:20 pm	2:00 pm	Lunch on own		
Addressing national space weather needs Chair: Spiro Antiochos (NASA GSFC)				
2:00 pm	2:20 pm	Quo vadis space weather modeling	Tamas Gombosi	University of Michigan
2:20 pm	2:40 pm	LWS new directions: NASA HQ perspective	Elsayed Talaat	NASA HQ
2:40 pm	4:00 pm	Panel Discussion: CCMC support for national space weather needs Moderator: Spiro Antiochos (NASA GSFC) Panelists: Michael Gremillion (USAF), Jon Linker (PSI), Mark Linton (NRL), Tony Mannucci (NASA JPL), Alexei Pevtsov (NSO), Jimmy Raeder (UNH), David Sibeck (NASA GSFC), Elsayed Talaat (NASA HQ), Rodney Viereck (NOAA SWPC). ○ What novel space weather modeling capabilities and data products should be implemented and maintained at the CCMC in partnership with the community and the LWS program? ○ How can CCMC better support the ongoing national space weather activities such as the National Space Weather Action Plan?		
4:00 pm	4:30 pm	Coffee Break		

Working with CCMC in preparation for delivering LWS strategic capabilities. Chair: Judy Karpen (NASA GSFC)				
4:30 pm	4:50 pm	Medium Range Thermosphere Ionosphere Storm Forecasts	Tony Mannucci et al	NASA JPL
4:50 pm	5:10 pm	Integrated Real-Time Modeling System for Heliospheric Space Weather Forecasting	Dusan Odstrcil et al	NASA GSFC / GMU
5:10 pm	5:30 pm	From the Photosphere to the CCMC: Modeling Particle Acceleration with Coupled MHD and Focused Transport Simulations	Matt Gorby & Nathan Schwadron	UNH
5:30 pm	5:45 pm	Transitioning EEGGL to the CCMC	Igor Sokolov et al	University of Michigan
5:45 pm	6:00 pm	Transitioning AMPS to the CCMC	Valeriy Tenishev et al	University of Michigan
6:00 pm	6:30 pm	Break		
6:30 pm	7:30 pm	Discussions, Working Meetings		

TUESDAY

START	END	TOPIC	PRESENTER/s	AFFILIATION
7:30 am	8:00 am	Registration, Breakfast, Coffee		
Models at CCMC. Collaborations with model developers. Chair: Tamas Gombosi (University of Michigan)				
8:00 am	8:15 am	Flux Emergence Prediction Tool (FEPT)	Nagi Mansour	NASA
8:15 am	8:30 am	ADAPT	Carl Henney	AFRL
8:30 am	8:45 am	WSA	Nick Arge	AFRL
8:45 am	9:00 am	Regional flux emergence in SWMF	Ward Manchester	University of Michigan NASA
9:00 am	9:20 am	CORHEL	Jon Linker et al	PSI
9:20 am	9:35 am	AWSoM: Modeling the heliosphere from the chromosphere to planets	Bart Van Der Holst	University of Michigan
9:35 am	9:45 am	Discussion		
9:45 am	10:10 am	Coffee Break		
Models at CCMC. Collaborations with model developers. Chair: Tony Mannucci (NASA JPL)				
10:10 am	10:30 am	OpenGGCM new developments	Jimmy Raeder	UNH
10:30 am	10:50 am	SWMF new developments	Gabor Toth	University of Michigan
10:50 am	11:05 am	RCM	Stan Sazykin	Rice University
11:05 am	11:20 am	CIMI	Mei Ching Fok	NASA GSFC
11:20 am	11:35 am	IMPTAM	Ilka Sillanpaa	FMI, Finland
11:35 am	11:50 am	KePWOM	Alex Glocer	NASA GSFC
11:50 am	12:00 pm	Discussion		

12:00 pm	1:30 pm	Lunch on own		
Models at CCMC. Collaborations with model developers. Chair: Jimmy Raeder (UNH)				
1:30 pm	1:50 pm	GAIM	Bob Schunk	USU
1:50 pm	2:05 pm	IDA4D	Gary Bust	JHU APL
2:05 pm	2:20 pm	CTIPe to IPE	Tim Fuller-Rowell	NOAA CIRES
2:20 pm	2:35 pm	SAMI3	Joe Huba	NRL
2:35 pm	2:50 pm	Atmosphere-ionosphere model development at NCAR: TIEGCM, WACCM-X	Stan Solomon	NCAR
2:50 pm	3:00 pm	Discussion		
3:00 pm	3:15 pm	Coffee Break		
Models at CCMC. Collaborations with model developers. Chair: Jon Linker (PSI)				
3:30 pm	3:45 pm	CMIT/LFM	Mike Wiltberger	NCAR
3:45 pm	4:00 pm	LFM/Helio	Slava Merkin	JHU APL
4:00 pm	4:15 pm	Drag-Based Model	Tomislav Zic	Hvar Observatory, University of Zagreb
4:15 pm	4:30 pm	Heliospheric Tomography	Bernie Jackson	UCSD
4:30 pm	4:45 pm	Tracing CME with Ooty IPS data and collaboration with CCMC	P.K. Manoharan	TIFR RAC, India
4:45 pm	5:00 pm	Discussion		
5:00 pm	7:30 pm	Working Meetings CCMC team discussions with model developers		

WEDNESDAY

START	END	TOPIC	PRESENTER/s	AFFILIATION
7:30 am	8:00 am	Registration, Breakfast, Coffee		
Science users and research community feedback Chair: Ray Walker (UCLA)				
8:00 am	8:20 am	Mission scientist feedback and outlook	David Sibeck	NASA GSFC
8:20 am	8:40 am	Solar scientist feedback: Validation for solar wind prediction from models installed at the CCMC	Lan Jian	NASA GSFC
8:40 am	9:00 am	Magnetosphere scientist feedback: Assessing the performance of global MHD models at the CCMC using key system parameters and empirical relationships	Evgeniy Gordeev	Saint-Petersburg University, Russia
9:00 am	9:15 am	Feedback and outlook from the GEM science community. Opportunities for CCMC support of GEM Focus Groups	Mike Wiltberger	NCAR
9:15 am	9:30 am	Feedback and outlook from the CEDAR science community	Bob Robinson	CUA
9:30 am	9:45 am	Discussion		
9:45 am	10:00 am	A "Virtual Observatory" approach to sharing of model and simulation output and to data-model comparisons. Outlook on CCMC support of VOs	Aaron Roberts et al.	NASA GSFC

10:00 am	10:30 am	Coffee Break		
Modeling extreme events and exoplanetary systems: feedback, needs, benefits, challenges, outlook Chair: Alex Glocer (NASA GSFC)				
10:30 am	10:45 am	How would the thermosphere and ionosphere respond to an extreme space weather event and how would we validate a modeled response?	Tim Fuller-Rowell	NOAA CIRES
10:45 am	11:00 am	Discussion		
11:00 am	11:15 am	CCMC "What if" simulations of different magnetospheres in support of Heliophysics Summer Schools	Nick Gross & Jan Sojka	Boston University, USU
11:15 am	11:30 am	Planetary Community view of CCMC web-based simulation services	Shawn Domagal-Goldman	NASA GSFC
11:30 am	11:45 am	Astrophysics Community view of CCMC web-based simulation services and benefits and opportunities of exoplanetary systems modeling support	William Danchi	NASA GSFC
11:45 am	12:15 pm	Discussion		
12:15pm	2:00 pm	Lunch on own		
Research and mission science support Chair: Gabor Toth (University of Michigan)				
2:00 pm	2:15 pm	Research and educational opportunities of local models at the CCMC	Ilja Honkonen	NASA GSFC
2:15 pm	2:35 pm	PIC simulation services at the CCMC in support of MMS mission and GEM Magnetic Reconnection Focus Group	Yi-Hsin Liu, Lutz Rastaetter et al.	NASA GSFC
2:35 pm	3:00 pm	Discussion: Benefits and opportunities for expanding kinetic simulation services at the CCMC		
3:00 pm	3:15 pm	New Horizons Flyby Modeling Challenge	Peter MacNeice et al.	NASA GSFC
3:15 pm	3:30 pm	Opportunities to build upon the New Horizons Challenge facilitated by the CCMC to advance understanding and modeling capabilities of outer heliosphere	Nick Pogorelov et al	UAH
3:30 pm	3:35 pm	Discussion		
3:35 pm	4:00 pm	Coffee Break		
Communicating space weather information to broader community Chair: Alex Young (NASA GSFC)				
4:00 pm	4:15 pm	Using CCMC models to communicate the heliosphysics story	Sarah Frazier	NASA GSFC
4:15 pm	4:30 pm	Advanced Visualization of CCMC simulations	Tom Bridgman	NASA GSFC
4:30 pm	5:00 pm	CCMC-LiU-AMNH Partnership: Bringing space weather models to planetariums	Alex Bock et al	Linkoping University, Sweden
5:00 pm	5:15 pm	Discussion		
5:15 pm	5:30 pm	Break		
5:30 pm	7:30 pm	Working Meetings		
5:30 pm	7:30 pm	CCMC Advisory Group Meeting (Ballroom – Coffee, snacks)		

THURSDAY

START	END	TOPIC	PRESENTER/s	AFFILIATION
7:30 am	8:00 am	Registration, Breakfast, Coffee		
Addressing NASA space weather needs. Space weather effects in auroral region. Chair: Bob Robinson (CUA)				
8:00 am	9:00 am	Space weather services and tools for NASA robotic missions: presentations and demos by CCMC/SWRC interns	CCMC/SWRC interns	CCMC, American University
9:00 am	9:15 am	NASA missions space weather needs: Spacecraft charging at Low Earth Orbits	Joseph Minow	NASA LARC
9:15 am	9:30 am	Auroral boundary from FUV imagers for validation of auroral products at the CCMC	Yongliang Zhang	JHU APL
9:30 am	9:45 am	Aurorasaurus	Elisabeth MacDonald	NASA GSFC
9:45 am	10:00 am	Discussion: Auroral boundaries and impacts on technologies in auroral region. Approach to validation and metrics selection for auroral boundaries predictions		
10:00 am	10:15 am	Coffee Break		
Space weather effects on the ground. Radiation effects. Chair: Kent Tobiska (SET, USU SWC)				
10:15 am	10:30 am	Assessment of the CCMC real-time SWMF runs	Michael Liemohn	University of Michigan
10:30 am	10:45 am	LWS institute: GICs Working group perspective on CCMC	Antti Pulkkinen	CCMC
10:45 am	11:05 am	Opportunities and benefits of incorporation of 3D induction data and models into space weather end-to-end modeling at the CCMC	Anna Kelbert	USGS
11:05 am	11:20 am	Discussion		
11:20 am	11:35 am	FAA view of CCMC	Karen Shelton-Mur	FAA
11:35 am	11:50 am	CARI-7	Kyle Copeland	FAA
11:50 am	12:05 pm	Modeling radiation shielding for spacecraft and instrumentation	Michael Xapsos	NASA GSFC
12:05 pm	12:20 pm	Discussion: Approach to metrics and validation for radiation effects models		
12:20 pm	2:00 pm	Lunch on own		
Space weather effects in ionosphere: satellite drag, ionospheric disturbances. Metrics selection for specific applications. Chair: Gary Bust (JHU APL)				
2:00 pm	2:15 pm	LWS institute: Satellite drag working group: perspective on CCMC	Yongliang Zhang	JHU APL
2:15 pm	2:30 pm	Discussion: Assessment of storm driven neutral densities modeling capabilities. Metrics for satellite drag applications		
2:30 pm	2:45 pm	On-going community-wide projects to assess capabilities to quantify storm-driven ionospheric disturbances (a.k.a. GEM-CEDAR Modeling Challenges)	Ja Soon Shim et al.	CCMC
2:45 pm	3:00 pm	Discussion: Metrics selection for ionospheric disturbances applications		
3:00 pm	3:15 pm	Coffee Break		

Addressing needs of human exploration. Flares and SEPs. Chair: John Allen (NASA HQ)				
3:15 pm	3:35 pm	CCMC-SRAG partnership to address space weather needs of human exploration	Dan Fry	NASA SRAG
3:35 pm	3:55 pm	REleASE Update: Near-Realtime Forecasting of MeV Protons on the Basis of Sub-Relativistic Electrons	J. Labrenz, B. Heber, P. Kuehl, C. Salamis, O. Malandraki and Arik Posner (presented by Arik Posner)	NASA HQ
3:55 pm	4:15 pm	Towards coupled Heliosphere-SEP system	Leila Mays, Janet Luhmann, Matt Gorby, Dusan Odstrcil, Jon Linker, Nathan Schwadron, Igor Sokolov	NASA GSFC, GMU, UNH, PSI, UMICH
4:15 pm	4:35 pm	Solar flare forecasting verification in RWC Japan and opportunities for partnership with CCMC	Yuki Kubo	NICT, Japan
4:35 pm	4:55 pm	CME and solar flare forecasting at ROB and collaboration with CCMC	Andy Devos	ROB, Belgium
4:55 pm	5:15 pm	COMESEP, SEPForecast and other SEP related activities at BIRA-IASB	Mark Dierckxsens	BIRA-IASB, Belgium
5:15 pm	5:30 pm	Break		
5:30 pm	7:30 pm	Discussion and Demo – Community-wide forecast validation "scoreboards": Andy Devos (ROB, Belgium), Mark Dierckxsens(BIRA-IASB, Belgium), Mike Marsh (Met Office, UK), Yuki Kubo (NICT, Japan), Leila Mays (CCMC), Rick Mullinix (CCMC) et al, Arik Posner (NASA HQ), Ki-Chang Yoon (KSWC, South Korea) (Ballroom – Coffee, Snacks)		
5:45 pm	7:30 pm	CCMC Advisory Group Meeting (Breakout Room – Emil Nobs Room)		

FRIDAY

START	END	TOPIC	PRESENTER/s	AFFILIATION
7:30 am	8:00 am	Registration, Breakfast, Coffee		
International Research, Education and Development Initiative (IREDI) Chair: Chigo Ngwira (NASA GSFC)				
8:00 am	8:15 am	Feedback on CCMC support of the Introduction to Space Weather School at the ILWS/COSPAR Workshop and opportunities for hosting CCMC Schools in India and Asia	Dibyendu Nandi (Webex) & Nat Gopalswamy	CESSI, India
8:15 am	8:30 am	Using CCMC tools in classrooms	Michael Liemohn	University of Michigan
8:30 am	8:45 am	CCMC as a resource for space weather program at CUNY/QCC	Chantale Damas	CUNY/QCC
8:45 am	9:45 am	Panel Discussion: CCMC as a hands-on educational resource for summer schools, international organizations (ILWS, COSPAR, SCOSTEP, etc) and universities world-wide Moderator: Chantale Damas (CUNY/QCC) Panelists: Nat Gopalswamy (NASA GSFC), Nick Gross (BU), Lika Guhathakurta (NASA HQ), Michael Liemohn (UMICH), Stefaan Poedts (KU Leuven, Belgium), Vadim Uritsky (CUA), Ray Walker (UCLA), Yihua Zheng (CCMC) ○ IREDI Space Weather World Relay: Engaging students around the globe in collaborative space weather monitoring and experimental research forecasting (practicum for undergraduate space weather programs) ○ Successes and challenges in establishing undergraduate and graduate space weather programs ○ Collaborative development of modular repository of ready-to-use space weather educational material ○ CCMC as a resource for graduate student research projects. CCMC Student Research Contest. ○ Benefits and funding opportunities for hands-on IREDI Mini-Schools attached to Workshops/Conferences and Traveling IREDI Bootcamps hosted by universities worldwide.		
9:45 am	10:00 am	Coffee Break		

CCMC Advisory Group Chair: Barbara Thompson (NASA GSFC)				
10:00 am	10:20 am	CCMC Status and Outlook	Ray Walker	UCLA
10:20 am	10:30 am	Questions, Discussion		
CCMC Partnerships with research, educational and operational institutions world-wide Chair: Barbara Thompson (NASA GSFC)				
10:30 am	10:50 am	Opportunities for CCMC-VSWMC partnership	Stefaan Poedts	KU Leuven, Belgium
10:50 am	11:10 am	Opportunities for CCMC-PSTEP partnership	Kanya Kusano	Nagoya University, Japan
11:10 am	11:30 am	SSA/ESA view of CCMC	Alexi Glover	SSA/ESA
11:30 am	11:50 am	UK Met Office view of CCMC	Mike Marsh (for Mark Gibbs)	Met Office, UK
11:50 am	12:10 pm	New technologies and models in SPENVIS Next Generation. Opportunities for collaboration with CCMC	Stijn Calders	BIRA-IASB, Belgium
12:10 pm	12:30 pm	Opportunities for CCMC – RAL partnership	Ian McCrea	RAL,UK
12:30 pm	12:50 pm	CCMC-KSWC partnership	Ki-Chang Yoon	KSWC, South Korea
Discussion: International Working Group at the CCMC (ICCMC) Moderator: Ian McCrea (RAL, UK)				
12:50 pm	2:00 pm	**Lunch and coffee discussion meeting: Free boxed lunch will be provided to those who replied to Anna Chulaki** The International Working Group at the CCMC (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. ○ ICCMC Statement: Why? What? How? ○ On-going projects, successes, challenges, opportunities ○ Action plan		
02:00 pm	3:00 pm	Lunch on own/Coffee Break		
Working Meeting: Virtual Observatories and web-based information dissemination services world-wide Chair: Aaron Roberts (NASA GSFC)				
3:00 pm	3:05 pm	Introductory remarks. NASA HQ perspective on VOs	Jeffrey Hayes, Shing Fung	NASA HQ
3:05 pm	3:20 pm	Lessons learned from SpWxCOW and data availability requirements in industry	W. Kent Tobiska	SET, USU SWC
3:20 pm	3:40 pm	Implementation of IMPeX at CCMC: models, inputs, simulations, ready-for-model-data-comparison derived products (progress, challenges, outlook)	Chiu Wiegand	CCMC
3:40 pm	4:00 pm	VMR status and new ideas on model-data comparison systems	Darren De Zeeuw	University of Michigan
4:00 pm	4:15 pm	Outlook on VOs and model/simulations access standards from SPENVIS-NG developers. Approach to handling VOTables	Stjin Calders	BIRA-IASB, Belgium
4:15 pm	4:30 pm	ISWA database of real-time streams – a resource for VOs and web-based model-data comparison services	Justin Boblitt, Richard Mullinix	CCMC
4:30 pm	5:30 pm	Discussion and planning: ○ CCMC as a resource and a hub for VOs and web-based information dissemination services worldwide. Expanding and improving community access to simulation results. ○ Opportunities and best practice for data and simulation results sharing. ○ Web-Based tools and systems for model-data comparisons. ○ Challenges and a path forward with model-data metadata coordination. ○ Benefits and challenges of moving towards standards or guidelines. ○ Improving communication and coordination between space weather web-based information dissemination services worldwide. ○ Follow-on actions and next Workshop planning.		
6:30 pm		BBQ at Masha's house (Colesville, MD)		