AMOC ANNUAL MEETING AGENDA

15-17 August 2012
National Center for Atmospheric Research
Center Green Campus, Boulder, Colorado

Wednesday (15 August):

08:20 Introduction and logistics (Bill Johns/Gokhan Danabasoglu)

Science session 1: AMOC State, Variability, and Change

08:30 Baringer: Meridional overturning and heat transport from expendable bathythermograph data

08:45 Johns: Interannual variability of the AMOC and ocean heat transport at 26.5^{o}N observed by the RAPID-MOCHA array

09:00 Lankhorst: Meridional coherence and divergence of the Atlantic meridional overturning circulation (AMOC)

09:15 Garzoli: South Atlantic meridional fluxes

09:30 Kelly: The coherence and impact of meridional heat transport anomalies in the Atlantic Ocean inferred from observations

09:45 Rhines: AMOC variability and sea-surface height observations, models, and atmospheric connections

10:00 Carton: Does the mid-latitude ocean drive polar variability?

10:15 BREAK

Science session 2: AMOC State, Variability, and Change (continued)

10:45 Heimbach: Two decades of the AMOC: its structure, variability, and predictability

11:00 Danabasoglu: AMOC in Coordinated Ocean-ice Reference Experiments (COREs)

11:15 Grist: Surface estimates of the Atlantic overturning in density space in an eddy-permitting ocean model

11:30 Roberts: A multi-model study of the 2009/2010 minimum in AMOC at 26N and sub-tropical Atlantic ocean heat content

AMOC Variability Mechanisms and Predictability

11:45 Cessi: Thermohaline feedbacks and multiple equilibria in the adiabatic regime

12:00 Yang: Some effects of topography and wind stress on the Nordic Sea overflow

12:15 Zhang, D.: Connection between salinity decadal variations in the Subpolar North Atlantic and tropical Atlantic AMOC

12:30 LUNCH

Science session 3: AMOC Variability Mechanisms and Predictability (continued)

13:45 Dong: Causes for model-data differences in seasonal variations of the South Atlantic meridional overturning circulation

14:00 Wang: Cause of the Atlantic multidecadal oscillation: A positive feedback between SST and dust aerosol via Sahel rainfall

14:15 Wan (Presented by Chang, P.): Weather's effect on Atlantic meridional overturning circulation and climate change

14:30 Fedorov: An interdecadal oscillatory mode of the Atlantic meridional overturning circulation in a hierarchy of ocean and coupled models

14:45 Jackson: Exploring the stability of the AMOC in HadCM3

15:00 Weijer: Response of the Atlantic Ocean circulation to Greenland ice sheet melting in a global, strongly-eddying ocean model

15:15 BREAK

Science session 4: AMOC Variability Mechanisms and Predictability (continued)

15:45 Frankignoul: The coupling between the AMOC and the atmosphere in CCSM3

16:00 Msadek: Decadal predictions of the AMOC in the GFDL initialized coupled models experiments

16:15 Yeager: On the origins of low-frequency variations in large-scale North Atlantic circulation in the 20th Century

AMOC Climate Impacts

16:30 Buckley: Examining the relationships between low-frequency SST and AMOC variability

16:45 Hobbs: The salinity and heat budgets of the subtropical North Atlantic: Initial analysis

17:00 Ting: Pattern of Atlantic multidecadal SST variability in CMIP3 and CMIP5 models, link to AMOC, and related global impacts

17:15 Chang, Y.: AMOC variability and its impacts on the global climate

17:30 Allison: Mechanisms and impacts of decadal-scale fluctuation events in the Atlantic meridional overturning circulation in unforced climate model simulations

17:45 – 19:45 RECEPTION AND POSTERS

Thursday (16 August): Mini workshops (MW)

08:30 – 12:30 MW#1 and MW#2 running in parallel with a break at 10:15

MW#1: AMOC Fingerprinting from Historical and Proxy Data

08:30 Saenger: Ocean2k synthesis and the reconstruction of the past multidecadal variability in the Atlantic Ocean, and its potential link to the AMOC research community

09:00 Horton: Sea-level change along the Atlantic coast of the United States

09:30 Zhang, R.: Review of AMOC fingerprints from models and observations

10:00 Discussion (Lead: Rong Zhang, Rapporteur: Josh Willis)

10:15 BREAK and POSTERS

10:45 Discussion (continued)

MW#2: AMOC's Impact on the Carbon Cycle

08:30 Doney: Impacts of climate forcing on CO2 uptake in the North Atlantic

09:00 McKinley: North Atlantic carbon cycle variability on multi-decadal time scales

09:30 Discussion (Lead: Yochanan Kushnir, Rapporteur: Ping Chang)

10:15 BREAK and POSTERS

10:45 Discussion (continued)

12:30 LUNCH

13:45 – 17:45 MW#3 and MW#4 running in parallel with a break at 15:15

MW#3: The AMOC Observing System

13:45 Baehr: AMOC state and variability from existing and planned mooring arrays in the Atlantic

14:15 Ponte: AMOC variability from satellite data and ocean state estimates

14:45 Gary: Overturning in the Subpolar North Atlantic: Insights from Observing System Simulation Experiments

15:00 Rossby: OceanScope

15:15 BREAK and POSTERS

15:45 – 17:45 Discussion (Lead: Susan Lozier, Rapporteur: Patrick Heimbach)

MW#4: AMOC Mechanisms and Predictability

13:45 Delworth: Review of Proposed Mechanisms for Decadal to Multidecadal AMOC and Atlantic Variability

14:15 Branstator: Initial Value Predictability of Upper Layer Temperature and AMOC

14:45 Discussion (Lead: Gokhan Danabasoglu, Rapporteur: Young-Oh Kwon)

15:15 BREAK and POSTERS

15:45 – 17:45 Discussion (continued)

18:30 – 21:30 Meeting of the Executive Committee and External Review Committee (Invitation only – Millennium Hotel/Boulder Creek Living Room & Zolo Restaurant)

Friday (17 August):

08:30 Lindstrom: Update / perspective from funding agencies

09:00 Summaries of MWs, including Near Term Priorities (NTPs) (20 minutes each)

10:20 BREAK

10:50 Johns and TT leaders: Plenary discussion: progress, NTPs, future directions

12:30 ADJOURN