

**Monday**

**7/25/2016**

**Topic**

**Speaker**

**Room**

	<b>Topic</b>	<b>Speaker</b>	<b>Room</b>
8:30-8:45	Opening/Introductions/Logistics/Waivers	Arthur Mizzi/Scott Briggs/Allison Smith	Damon
8:45-9:00	Opening Remarks	David Edwards	Damon
9:00-10:15	Domestic/International AQ Issues - Problem definition focusing on social and economic issues	Susan Anenberg	Damon
10:15-10:30	Break/Question/Answer		Damon
10:30-11:45	Problem definition focusing on scientific issues: chemistry, forcings, transport and earth ecosystem responses.	Guy Brasseur	Damon
11:45-12:45	Lunch		
12:45-2:00	International agreements, domestic laws and regulations: How observations and modeling contribute to these frameworks	Bill Harnett	Main Seminar
2:00-3:15	Detailed look at how scientific/technical tools interact with political tools	Daven Henze	Main Seminar
3:15-3:30	Break/Question/Answer		Main Seminar
3:30-4:45	Bridging the gap between air quality science and management: The ACAST experience	Tracey Holloway	Main Seminar
4:45-5:30	Small Groups - meet small group members and facilitators; test computer/glade access; address computing questions	Small Group Leaders	TBD

**Tuesday**

**7/26/2016**

**Topic**

**Speaker**

**Room**

	<b>Topic</b>	<b>Speaker</b>	<b>Room</b>
8:30-8:45	Review - Question/Answer	Arthur Mizzi	Damon
8:45-10:00	Introduction to US AQ legal/regulatory system, CAA history/overview/organization.	Skip Spensley	Damon
10:00-11:15	NAAQS, SIPS, Regional SIPS, NAAs, AAs, PSDAs	Leah Martland	Damon
11:15-11:30	Break/Question/Answer		Damon
11:30-12:30	Implementation of CAA Power Sector Regulatory Programs	Richard Haueber	Damon
12:30-1:30	Lunch		
1:30-2:45	Mobile Sources	Doug Decker	Damon
2:45-4:00	NSPS/NESHAPS	Jana Milford	Main Seminar
4:00-4:15	Break/Question/Answer		Main Seminar
4:15-5:30	Small Groups/Tutorial on CAA/Regulatory System by Jana Milford with assistance from Richard Haueber/Meet Speakers	Jana Milford and Richard Haueber meet with Small Groups and work on tutorial.	Main Seminar
6:30-8:30	Evening Reception and Dinner: Address - Life as a Woman Scientist in the Satellite World	Cathy Clerbaux	Millennium Hotel

**Wednesday****7/27/2016**

	<b>Topic</b>	<b>Speaker</b>	<b>Room</b>
8:30-8:45	Review - Question/Answer	Arthur Mizzi	Damon
8:45-10:00	Enforcement	Tom Roan	Damon
10:00-11:15	Domestic/International AQ Hot Topics: Air Quality and Climate Change	Vickie Patton	Damon
11:15-11:30	Break/Question/Answer		Damon
11:30-12:30	Small Group Discussions	Vickie Patton and Tom Roan visiting with each small group.	Damon
12:30-1:30	Lunch		
1:30-2:00	AQ Observations Introduction	David Edwards	Main Seminar
2:00-3:00	AirNow and NAPS	John White	Main Seminar
3:00-3:15	Break/Question/Answer		Main Seminar
3:15 - 4:15	Special Observation Programs and Field Campaigns	Frank Flock and Louisa Emmons	Main Seminar
4:15 - 5:30	Small Groups/Tutorial Continuation/Meet Speakers	Small Group Leaders	TBD

**Thursday**

**7/28/2016**

	<b>Topic</b>	<b>Speaker</b>	<b>Room</b>
8:30 - 8:45	Review - Question/Answer	Arthur Mizzi	Damon
8:45-9:15	Introduction to Satellite AQ observations	David Edwards	Damon
9:15-10:05	Trace gas retrieval methods	Kevin Bowman	Damon
10:05-10:20	Break		Damon
10:20-11:10	UV trace gas measurement	Kelly Chance	Damon
11:10-12:00	Aerosol retrievals and measurements	Jun Wang	Damon
12:00-1:00	Lunch		
1:00-1:45	TES measurements and applications	Kevin Bowman	Main Seminar
1:45-2:30	MOPITT measurements and applications	Helen Worden	Main Seminar
2:30-2:45	Break		Main Seminar
2:45-3:30	IASI measurements and applications	Cathy Clerbaux	Main Seminar
3:30-4:15	Future planned missions	Kelly Chance and Cathy Clerbaux	Main Seminar
4:15 - 5:30	Small Groups/Tutorial on Satellite Retrievals by Helen Worden and Kevin Bowman/Meet Speakers	Helen Worden, Kevin Bowman, and Cathy Clerbaux with Small Group Leaders	Main Seminar

**Friday**  
**7/29/2016**

	<b>Topic</b>	<b>Speaker</b>	<b>Room</b>
8:30-8:45	Review - Question/Answer	Kevin Bowman and Jerome Barre	Damon
8:45-9:45	Introdcution to AQ Modeling/Forecasting	Guy Brasseur	Damon
9:45-10:45	Regulatory Models	Jeff Weil/Rohit Mathur	Damon
10:45-11:00	Break/Question/Answer		Damon
11:00-12:00	Global and Regional Modeling	J.F. Lamarque/Pius Lee	Damon
12:00-1:00	Lunch		
1:00-2:00	WRF-Chem: Online vs Offline Atmospheric Chemistry Modeling	Ravan Ahmadov	Main Seminar
2:00-3:00	Special Lecture: AQ Issues in the US National Parks - Prep for Saturday's Tour of RMNP	Bret Schichtel/Michael Bell	Main Seminar
3:00-3:15	Break/Question/Answer		Main Seminar
3:15-5:30	Small Groups/Tutorial on WRF-Chem by Ravan Ahmadov with assistance from Pius Lee/Meet Speakers	Ravan Ahmadov/Pius Lee with Small Group Leaders	Main Seminar

**Saturday  
7/30/2016**

**Tour Rocky Mountain National Park**

**Colorado Wilderness Rides and  
Guides and Jim Cheatham of the  
National Park Service**

8:00:00 AM	Bus departs from Millenium Harvest House	"	Boulder
9:30-10:00	Visit Lily Lake	"	RMNP
10:30-11:00	RMNP Visitors Center	"	RMNP
11:00-11:30	Go to Bear Lake Shuttle	"	RMNP
11:30-12:00	Shuttle to Bear Lake	"	RMNP
12:00-4:30	Option 1: Loch Vale Hike	"	RMNP
11:30-12:30	Option 2: Go to Alpine Visitors Center	"	RMNP
12:30-1:00	Option 2: Alpine Visitors Center	"	RMNP
1:00-1:30	Option 2: Go to Cub Lake	"	RMNP
1:30-3:30	Option 2: Cub Lake Hike	"	RMNP
3:30-4:00	Option 2: Go to Bear Lake	"	RMNP
4:00-4:30	Option 2: Bear Lake	"	RMNP
4:30-5:00	Bus departs from Bear Lake	"	RMNP
7:00:00 PM	Bus arrives at Millenium Harvest House	"	Boulder

**Monday**

**8/1/2016**

**Topic**

**Speaker**

**Room**

8:30-8:45	Review - Question/Answer	Arthur Mizzi and Ave Arellano	Main Seminar
8:45-9:45	AQ Forecasting - United States	John White/Pius Lee	Main Seminar
9:45-10:45	AQ Forecasting - Canada	Veronique Bouchet	Main Seminar
10:45-11:00	Break/Question/Answer		Main Seminar
11:00-12:00	AQ Forecasting - Europe	Richard Engelen	Main Seminar
12:00-1:00	Lunch		
1:00-2:00	AQ Forecasting - Asia	Zifa Wang	Main Seminar
2:00-3:15	Panel Discussion on Future Directions in AQ Forecasting	John White, Pius Lee, Veronique Bouchet, Richard Engelen, Zifa Wang	Main Seminar
3:15-3:30	Break/Question/Answer		Main Seminar
3:30-5:30	Small Groups/Tutorial Continuation/Meet Speakers	John White, Pius Lee, Veronique Bouchet, and Richard Engelen to visit with each small group. Small Group Leaders	Main Seminar

**Tuesday**

**8/2/2016**

**Topic**

**Speaker**

**Room**

	<b>Topic</b>	<b>Speaker</b>	<b>Room</b>
8:30-8:45	Review - Question/Answer	John White and Arthur Mizzi	Main Seminar
8:45-9:45	Introduction to Data Assimilation	Jeff Anderson	Main Seminar
9:45-10:45	Introduction to AQ Data Assimilation	Greg Carmichael	Main Seminar
10:45-11:00	Break/Question/Answer		Main Seminar
11:00-12:15	AQ Data Assimilation - Methods Part 1	Richard Menard	Main Seminar
12:15-1:15	Lunch		
1:15-2:30	AQ Data Assimilation - Methods Part 2	Ave Arellano	Main Seminar
2:30-3:30	Small Group Discussions	Jeff Anderson, Greg Carmichael, Richard Menard, and Ave Arellano to visit with each small group; Small Group Leaders	TBD
3:30-3:45	Break/Question/Answer		TBD
3:45-5:30	Small Groups/Tutorial on Chemical Data Assimilation by _____/Meet Speakers	Jeff Anderson, Greg Carmichael, Richard Menard, and Ave Arellano with Small Group Leaders	TBD



**Wednesday**

**8/3/2016**

**Topic**

**Speaker**

**Room**

	<b>Topic</b>	<b>Speaker</b>	<b>Room</b>
8:30-8:45	Review - Question/Answer	Greg Carmichael and Richard Menard	Main Seminar
8:45-9:30	Emission Inventories - Overview	Christine Wiedinmyer and Greg Frost	Main Seminar
9:30-10:15	Emissions Sources and Constraints from Observations	Christine Wiedinmyer and Greg Frost	Main Seminar
10:15-10:30	Break/Question/Answer		Main Seminar
10:30-12:00	Specific Emissions Sources and Observational Constraints	Christine Wiedinmyer, Greg Frost, and Brian McDonald	Main Seminar
12:00-1:00	Lunch		
1:00-1:15	Question/Answer	Greg Frost, Christine Wiedinmyer, and Brian McDonald	TBD
1:15-2:30	Small Group Discussions - AQ Forecasting, Data Assimilation, and Emissions/Meet Speakers	John White, Greg Carmichael, Richard Menard, Greg Frost, Brian McDonald, and Christine Wiedinmyer with Small Group Leaders	TBD
2:30-2:45	Break/Question/Answer		TBD
2:45-5:30	Small Groups/Tutorial Continuation/Meet Speakers	Small Group Leaders	TBD

**Thursday  
8/4/2016**

	<b>Topic</b>	<b>Speaker</b>	<b>Room</b>
8:30-9:45	Emission Estimation - Part 1	Daven Henze and Dylan Jones	Main Seminar
9:45-11:00	Emission Estimation - Part 2	Dylan Jones and Daven Henze	Main Seminar
11:00-11:15	Break/Question/Answer		Main Seminar
11:15-12:30	Emission Estimation - State Augmentation	Daven Henze and Dylan Jones	Main Seminar
12:30-1:30	Lunch		
1:30-2:00	Question/Answer	Dylan Jones and Daven Henze	TBD
2:00-3:30	Small Group Discussions - Emission Estimation Methods	Dylan Jones, Daven Henze, and Ave Arellano with Small Group Leaders	TBD
3:30-3:45	Break/Question/Answer		TBD
3:45-5:30	Small Groups/Tutorial on Inversion Methods by Daven Henze and Dylan Jones/Meet Speakers	Dylan Jones, Daven Henze, and Ave Arellano with Small Group Leaders	TBD
6:30-8:30	Evening Reception and Dinner: Address - Life as an Atmospheric Chemist	Guy Brasseur	Millennium Hotel

**Friday**

**8/5/2016**

**Topic**

**Speaker**

**Room**

8:30-8:45	Review - Question/Answer	Ave Arellano and Daven Henze	Main Seminar
8:45-11:15	Small Group/Tutorial Continuation	Ave Arellano and Daven Henze with Small Group Leaders	Main Seminar
11:15-11:30	Break/Question/Answer		Main Seminar
11:30-12:30	Small Group Discussions	Small Group Leaders	TBD
12:30-1:30	Lunch		Main Seminar
1:30-2:30	Summary	TBD	Main Seminar
2:30-3:45	Discussion - Lessons Learned from Lectures and Tutorials	One student representative from each small group to make five to ten minute presentation and lead discussion.	Main Seminar
3:45-4:00	Break/Question/Answer		Main Seminar
4:00-4:15	Closing Remarks	TBD	Main Seminar