44th Global Monitoring Annual Conference

Boulder, Colorado

May 17-18, 2016
Housekeeping

- Poster session, 5:00-8:00 pm today!
  - Posters are being collected at the registration table. Poster tubes stored in the "hallway" on the left of the stage.

- Agendas are available at the desk and are posted outside the room and behind the food table.
  - We have memory sticks with the full pdf set of abstracts available to borrow.
  - For those without e-access, we do have some printed abstract booklets available as well. Please ask Julie.

- A few printed abstract books are kept at the desk for quick reference.
  - Wireless access throughout the building
    - DSRC connection
    - Username: gmac
    - Password: noaagmac

- Lunches Delivered here.
  - Sign up and pay at the registration table.
  - Drop-dead time is morning break

- Toilets, fire alarm, etc.

- Silence your phones.

- Don’t stand in front of coffee and food table during breaks.
  - Grab what you need and cross the room

- Side conversations in the hallway . . .

- Tour on Thursday
  - Sign up at desk by noon

- Questions – see our wonderful staff.
### Attendance – “In the room”
- 180+ Attendees
  - 33 International guests
    - 18 Nations
    - 6 Continents
  - 10 International agencies & organizations
  - 9 International universities
  - 5 International private sector companies
  - 10 U.S. agencies & programs
  - 13 U.S. universities
  - 13 Private sector companies

### Contributing Authors
- 117 Presentations
  - 117 Lead authors
  - and-
  - 440 “unique” co-authors

### Representing:
- 17 U.S. agencies & labs
- 32 U.S. universities
- 24 Countries
- 32 International organizations
- 33 International universities
NOAA ESRL Global Monitoring Annual Conference
May 17-18, 2016
Boulder, Colorado
32 International Visitors Representing 18 Countries
GMAC Oral Sessions

- **Tuesday**
  - Carbon Cycle
    - Global Observations
  - Carbon Cycle
    - Methane
  - Carbon Cycle
    - Regional Observations
  - (Posters)

- **Wednesday**
  - Radiation and Aerosols
  - Halocarbons and other Trace Gases
  - Ozone and Water Vapor
  - Carbon Cycle and Greenhouse Gases
    - Oil and Gas
Poster Session

• Carbon Cycle and GHGs (P1 - P28)
• Ozone and Water Vapor (P29 - P41)
• Halocarbons (P42 - P45)
• Surface Radiation (P46 - P51)
• Aerosols (P52 - P60)
• Meteorology and Partner Stations (P61 - P67)
• SOS Explorer (P68) – Electronic
Snow-out is defined by a 0.30 albedo threshold.
Opening Speakers

• **Keynote** – Ray Weiss, Scripps Institution of Oceanography
  - *Keeping Up the Standards: Building and Maintaining a Global Atmospheric Measurement Network*

• Arlyn Andrews, NOAA ESRL Global Monitoring Division
  - *In-service Aircraft for Global Monitoring: Status and Perspectives*

• Christoph Zellweger, Federal Laboratories for Materials Science and Technology, EMPA
  - *Traceability of Measurements Within the Global Atmosphere Watch Programme*

• Pieter Tans, NOAA/ESRL Global Monitoring Division
  - *Multiple Immediate Benefits of Emissions Mitigation*
Thank you all for coming!

• We look forward to an invigorating 44th Annual Meeting . . .
Keynote Speaker

Dr. Ray Weiss
Scripps Institution of Oceanography
Surface Water and Atmospheric Carbon Dioxide and Nitrous Oxide Observations by Shipboard Automated Gas Chromatography: Results From Expeditions Between 1977 and 1990

R. F. Weiss · F. A. Van Woy · P. K. Salameh
May 17-18, 2016
ESRL GMAC – 2016 Welcome

JH Butler

ALE
GAGE
AGAGE

ALE/GAGE/AGAGE sampling stations

Trinidad Head (California)
Cape Matatula (American Samoa)
Monte Cimone (Italy)
Ragged Point (Barbados)

Ny-Alesund (Svalbard)
Jungfraujoch (Switzerland)
Shangchilanz (China)
Gosan (Korea)
Hateruma (Japan)

Cape Grim (Tasmania)

SOGE ▶ CMA ▲ SNU ▲ NIES