

AGENDA

Mobile Air Conditioning Summit 2005

An International Conference to Discuss the Way Forward

Co-Hosted By

**California Air Resources Board
United States Environmental Protection Agency**

March 15 and 16, 2005

California Environmental Protection Agency Headquarters Building
Byron Sher Auditorium, Second Floor
1001 I Street, Sacramento, California 95814

OBJECTIVES

1. To share the latest national and international technical progress regarding air conditioning systems for mobile applications and their potential role in helping California and the world reduce global climate change emissions.
2. To discuss the latest governmental voluntary and regulatory activities relating to environmentally superior mobile air conditioning systems.
3. To exchange up-to-date policy and technical information on mobile air conditioning refrigerants.
4. To enrich the debate about the best mobile refrigerant and technology alternatives for reducing greenhouse gas emissions.
5. To have an occasion that facilitates ongoing as well as new research efforts that promote the development of environmentally superior mobile air conditioning systems.

SYMPOSIUM ORGANIZERS

California Air Resources Board
United States Environmental Protection Agency
Mobile Air Conditioning Society Worldwide
Society of Automotive Engineers

DAY ONE - Tuesday March 15, 2005

8:00 AM	Registration, sign-in
9:00 AM	Welcome <i>Tom Cackette, CARB Chief Deputy Executive Officer</i>
9:05 AM	Welcoming Comments <i>California Assemblymember Fran Pavley</i>
9:15 AM	Conference Host Welcome <i>Dr. Stephen O. Andersen, USEPA, Summit Co-Chair</i>
9:25 AM	Housekeeping and Logistics <i>Annmarie Mora, CARB, Summit Co-organizer</i>

9:30 AM – SESSION 1 - REGULATORY NEEDS AND DESIRES FOR MOVING FORWARD WITH SUPERIOR MAC SYSTEMS WORLDWIDE

- Presentation 1 – 9:30 AM
Title: U.S. EPA Global Activities for MAC Improvements
Speaker: Dr. Stephen O. Andersen, USEPA, Summit Co-Chair
- Presentation 2 – 10:00 AM
Title: Overview of California's Vehicle Greenhouse Gas Emissions Regulation (with emphasis on the role of MAC systems)
Speaker: Tom Cackette, CARB

10: 30 AM - 10:50 AM Break

- Presentation 3 – 10:50 AM
Title: Phase-Out of HFC-134a in Mobile Air Conditioning in the Largest Car Market of the World
Speaker: Dr. Günter Hörmandinger, European Commissions, Environment Directorate General
- Presentation 4 – 11:20 AM PM
Title: Recovery of Fluorocarbons From The End-of-Life-Vehicle (ELV) in Japan
Speaker: Takuya Yano, Japan Ministry of Economy, Trade and Industry (METI)

11:50 AM – 1:30 PM Lunch Break

- Presentation 5 – 1:30 PM
Title: MAC Improvement Activities in Australia
Speaker: Steven Anderson, Australian Fluorocarbon Council

- Presentation 6 – 2:00 PM
Title: Canadian Activities and Global Climate Change – MACS Update
Speaker: Francois Lalond, Environment Canada
- Presentation 7 – 2:30 PM
Title: Solving Global Warming and Reducing Oil Dependency: The Role of the MAC Industry
Speaker: Roland Hwang, Natural Resources Defense Council

3:00 PM - 3:20 PM Break

- Presentation 8 – 3:20 PM
Title: Servicing Industry Efforts: Fixes to What Is Broken
Speaker: Elvis Hoffpauir, MACS Worldwide

PANEL DISCUSSION – 3:50 PM to 5:20 PM

Title: Mobile Air Conditioning in 2009 and Beyond, California and the World

Moderator: Dr. Alberto Ayala (CARB)

Panelists: Dr. Günter Hörmandinger (EU), Dr. Stephen O. Andersen (USEPA), Roland Hwang (NRDC), Francois Lalond (Environment Canada), Steve Albu (CARB)

Finding the common thread in the requirements by international regulators for improvements in MACS and a MAC System(s) that can meet those requirements

ADJOURN - 5:20 PM

DAY TWO - Wednesday March 16, 2005

9:00 AM SESSION 2 – EXPECTATIONS FOR TECHNICAL IMPROVEMENTS IN FUTURE SYSTEMS

- Presentation 9 – 9:00 AM
Title: SAE Improved Mobile Air Conditioning Cooperative Research Program
Speaker: John Rugh, National Renewable Energy Laboratory
- Presentation 10 – 9:30 AM
Title: Refrigerant Safety Issues-USEPA's Significant New Alternatives Program (SNAP) and Brief Report on Developing Country MAC Advances
Speaker: Karen Thundiyil, USEPA
- Presentation 11 – 10:00 AM
Title: Treatment of Vehicle Air Conditioning Systems in ARB's Greenhouse Gas Regulation - Direct and Indirect Emissions
Speakers: Dr. Alberto Ayala, CARB

10:30 AM - 10:50 AM Break

Panel Discussion – 10:50 PM to 12:30PM

Title: Verification Testing for Direct and Indirect Emissions of Mobile Refrigerants – Developing Best Practices, Standards, and the Road to Implementation
Moderator: Paul Hughes (CARB)
Panelists: Ward Atkinson (Sun Test Engineering), Dr. Denis Clodic (ACEA/Ecole de Mines de Paris), Jim Baker (Delphi), John Rugh (NREL)

12:30PM – 1:45 PM Lunch Break

2:00 PM SESSION 3 – DEVELOPMENTS IN REFRIGERANTS AND ENABLING TECHNOLOGIES

- Presentation 12– 1:45 PM
Title: An Industry in Transition – DuPont's Perspective of the Mobile Air Conditioning Industry
Speaker: Dave Bateman -DuPont Fluoroproducts

- Presentation 13– 2:15 PM
Title: Flammable Refrigerants
Speaker: Dave Godwin
- Presentation 14– 2:45 PM
Title: CO2 (R744) as an Alternative Refrigerant
Speaker: Armin Hafner, SINTEF

3:15 PM - 3:25 PM Break

- Presentation 15– 3:30 PM
Title: Low Cost and High Efficiency CO2 Mobile Air Conditioning System for Lower Segment Cars
Speaker: Roberto Monforte, Centro Ricerche Fiat
- Presentation 16– 3:50 PM
Title: R-152a Systems Technology Update
Speaker: Jim Baker, Delphi and Gary Hansen, Red Dot

4:30 PM - 4:40 PM Break

- Presentation 17– 4:40 PM
Title: Proposed Leakage Test Procedure in the EU
Speaker: Dr. Denis Clodic, ACEA/Ecole de Mines de Paris
- Presentation 18– 5:10 PM
Title: Overview of Mobile Air Conditioning Aftermarket Parts and Service Equipment Partnership
Speaker: Karen Thundiyil, USEPA

5:40 PM Closing Remarks

Richard Corey and Dr. Stephen Andersen

5:45 PM ADJOURN - END OF SUMMIT

SYMPOSIUM SPONSORS

