

FINAL AGENDA

The Second Summer CEDAR Workshop

June 29-July 2, 1987

Hosted by the High Altitude Observatory,
National Center for Atmospheric Research

Morning Sessions - Main Seminar Room

Morning Video Viewing of Morning Sessions- Damon Rooms North & South

Afternoon Video Replay of Morning Sessions - Damon Room North (Lounge)

Poster Papers* - Chapman Room

Afternoon Group Sessions

Main Seminar Room, Damon Room South, Director's Conference Room,
Captain Mary Room, & Fleischmann Building-Walter O. Roberts Board Room

Monday, June 29

- 8:00-8:30 **Introduction.** G. Romick, R. Anthes, P. Gilman
8:30-9:30 **Tutorial: Magnetospheric/Ionospheric Coupling.** Speaker: G. Siscoe
9:30-10:15 **National Science Foundation.** Speaker: E. Bierly
10:15-10:30 **Break:** Second floor near the Main Seminar Room.
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MAGNETOSPHERIC/IONOSPHERIC COUPLING

Chairperson: O. Beaujardiere

- 10:30-10:50 **Large-Scale Convection and Precipitation.** Summary of objectives and accomplishments.
10:50-11:10 **Substorm Morphology.** Summary of objectives and accomplishments.
11:10-11:30 **Global Ionospheric Modeling.** Summary of objectives and accomplishments.
11:30-11:50 **Penetration of Electric Fields at Lower Latitudes.** Summary of objectives and accomplishments.
11:50-12:15 **Concluding Remarks and Future Developments.**
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- 12:15-1:30 **Lunch**
1:30-4:30** **Workshop Group Sessions.** See page 5.
4:30-6:00 **CEDAR Data Base.** Chairperson: R. Sica

*Papers may be posted in the Chapman Room from Monday noon to Thursday at 5:30 P.M. There should be sufficient time for viewing during morning breaks and the afternoons.

**Refreshments will be available from 1:00 P.M. to 5:30 P.M. on the second floor near the Main Seminar Room.

Tuesday, June 30

- 8:30-9:30 **Tutorial: Gravity Waves.** Speaker: C. Hines
9:30-10:15 **Organization Plenary Session**
10:15-10:30 **Break:** Second floor near the Main Seminar Room.
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LOWER THERMOSPHERIC COUPLING

Chairperson: J. Forbes

- 10:30-10:45 **Waves and Turbulence and their Roles in Coupling the Middle and Upper Atmosphere.** D. Fritts
10:45-10:55 **Questions and Discussion**
10:55-11:10 **Problems in Mesospheric/Thermospheric Dynamical/Chemical Coupling.** R. Garcia
11:10-11:20 **Questions and Discussion**
11:20-11:35 **Research Problems in E-Region Electrodynamics.** A. Richmond
11:35-11:45 **Questions and Discussion**
11:45-12:00 **The Propagation of Tides from the Middle to Upper Atmosphere.**
 J. Forbes
12:00-12:15 **Questions and Discussion**
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- 12:15-1:30 **Lunch**
1:30-5:00** **Workshop Group Sessions.** See page 5.
5:15-5:30 **Board buses at east end of NCAR parking lot for Flagstaff Mountain barbecue.**

**Refreshments will be available from 1:00 P.M. to 5:30 P.M. on the second floor near the Main Seminar Room.

Wednesday, July 1

8:30-9:30 **Tutorial: Optical Techniques.** Speaker: G. Sheppard
9:30-10:15 **Organization Plenary Session**
10:15-10:30 **Break:** Second floor near the Main Seminar Room.

LARGE-SCALE THERMOSPHERIC DYNAMICS

Chairperson: T. Killeen

10:30-10:32 **Introductory Remarks.** T. Killeen

Theoretical Uncertainties Requiring Global-Scale Experimental Constraints

10:32-10:47 **Neutral Composition Dynamics and Energetics.** R. Roble
10:47-11:02 **Thermospheric/Ionospheric Coupling.** D. Rees, T. J. Fuller-Rowell
11:02-11:12 **Empirical Modeling of Dynamics.** T. Killeen

Experimental Results of Past Campaign Efforts: Science Synthesis and Identification of Outstanding Questions Requiring Collaborative Study.

11:12-11:27 **High Latitude Circulation and Ion/Neutral Coupling.** R. Smith
11:27-11:42 **Fabry-Perot/IS Radar Science.** J. Meriwether
11:42-11:57 **Radar Chain Measurements of Meridional Thermospheric Winds.**
V. Wickwar
11:57-12:07 **Ionosonde Measurements of Dynamics--A Global-Scale Diagnostic Technique.** K. Miller

Towards the Future: GITCAD

12:07-12:17 **The CEDAR-GITCAD Program--Preliminary Results and Future Plans.** M. Biondi

12:15-1:30 **Lunch**
1:30-5:30** **Workshop Group Sessions.** See page 5.
5:30-6:30 **Cocktail Hour at NCAR.** Second floor hall, at top of stairs near Main Seminar Room.
6:30-8:00 **Buffet dinner at NCAR.** Cafeteria.
8:00-9:00 **Roundtable Open Discussion.**

**Refreshments will be available from 1:00 P.M. to 5:30 P.M. on the second floor near the Main Seminar Room.

Thursday, July 2

- 8:30-9:45 **Tutorial: Middle Atmospheric Radars.** Speaker: R. Vincent
 Tutorial: Incoherent-Scatter Radars. Speaker: R. Behnke
- 9:45-10:15 **Discussion**
- 10:15-10:30 **Break:** Second floor near the Main Seminar Room.
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ATMOSPHERIC COMPOSITION, EMISSIONS, AND IMAGING

Chairperson: A. Christensen

- 10:30-10:32 **Introductory Remarks.** A. Christensen
- 10:32-11:02 **Imaging of Low Latitude Ionospheric Structures.** B. Tinsley

**Imaging, Spectroscopy, and Incoherent Radar Investigations
of Polar Cap Sun-Aligned Arcs**

- 11:02-11:32 **Scientific Issues, Measurement Objectives, Electrodynamics.** H. Carlson
- 11:32-11:47 **Optical and Radar Characterization of Energetic Particle Fluxes.**
A. Christensen
- 11:47-12:02 **Ground-Based Imaging.** S. Mende, G. Swenson
- 12:02-12:17 **Satellite-Based Imaging (VIKING).** A. Vallance-Jones, R. Gattinger
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- 12:15-1:30 **Lunch**
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Workshop Summary and Plans for FY 1988

- 1:30-3:00** **Reports from Workshop Group Session Chairpersons.**
- 3:00-3:30 **Break**
- 3:30-5:00 **Data Base and Future Directions.**

**Refreshments will be available from 1:00 P.M. to 5:30 P.M. on the second floor near the Main Seminar Room.