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33 INVESTIGATORS SELECTED FOR CLIMATE, ATMOSPHERIC STUDIES

The National Aeronautics and Space Administration has selected 33 scientific investigations for four satellite missions during 1982 through 1985.

The investigations, 23 from the United States and 10 from six foreign nations, will be concerned with climate and upper atmospheric research.

The 23 U.S. investigations have been selected from 11 universities, one private organization and two government agencies. The foreign countries involved are: Canada, Japan, France, United Kingdom, Federal Republic of Germany and Italy.

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Along with the 33 principal investigators, more than 80 co-investigators are associated with the selected investigations. More than 80 responses were received by NASA from the world's scientific community in reply to an announcement last January.

The 33 principal investigators will be organized into three teams and will initially participate with NASA, through scientific studies and investigations in support of the development of three experiment instruments.

Each country will be responsible for funding its own investigations and its participation in support of instrument development. Costs of the U.S. investigations are expected to total about \$55 million over the next five years, including NASA-developed instruments.

The Earth Radiation Budget Experiment and the Stratospheric Aerosol and Gas Experiment II will investigate the spatial and temporal variations of the radiation budget and stratospheric aerosols respectively. The Stratospheric Aerosol and Gas Experiment II and Halogen Occultation Experiments will each investigate ozone variability and the latter will focus on the effect of halogens on ozone along with other upper atmospheric constituents and physical processes.

All three experiments will be flown on the Earth Radiation Budget Satellite. The satellite will be carried to a medium inclination orbit by the NASA Space Shuttle and released as a free-flyer for its two-year scientific mission.

After instrument development, the investigators will plan for orbital operations, data processing, investigating instrument performance, verifying the adequacy of data products and completion of individual initial scientific data use investigations. Additional data use investigations may be sought through a subsequent announcement of opportunity.

Identical Earth Radiation Budget Experiment instruments will be flown on two near-polar orbiting, Sun-synchronous National Oceanic and Atmospheric Administration operational meteorological satellites for two-year missions to complement the data coverage of the Earth Radiation Budget Satellite mission. The Halogen Occultation Experiments will be flown initially on a seven-day Spacelab 3 mission scheduled for late 1982.

The science activities will be managed by the NASA Langley Research Center, Hampton, Va., and the overall project, including satellite development, will be managed by the NASA Goddard Space Flight Center, Greenbelt, Md.

INVESTIGATORS AND INVESTIGATIONS

Earth Radiation Budget Experiment

Dennis L. Hartman
University of Washington, Seattle
Radiation Budget Diurnal Cycle and Seasonal Variation

Charles H. Duncan
NASA Goddard Space Flight Center, Greenbelt, Md.
Radiation Budget Instrument Calibration

Robert D. Cess
State University of New York, Stony Brook
Models to Predict Radiation Budget Variations

V. Ramanathan
National Center for Atmospheric Research, Boulder, Colo.
Procedures for Determining Regional Radiation Budget

Edwin F. Harrison
NASA Langley Research Center, Hampton, Va.
Effects of Cloud Variability and Sampling on Radiation
Budget Measurements

Friedrich O. Huck
NASA Langley Research Center
Model of Radiation Budget Measurement Process and
Measurement Accuracy

William L. Smith
University of Wisconsin, Madison
Use of Radiation Budget Measurements in Weather Prediction
Model

Alvin J. Miller
National Oceanic and Atmospheric Administration
National Meteorological Center, Washington, D.C.
Relationship Between Radiation Budget, Energy Cycle and
Development of Atmospheric Wave Models

Robert Curran
NASA Goddard Space Flight Center
Angular Spectral Dependence of Radiation Field in Presence
of Clouds

Frederick B. House
Drexel University, Philadelphia
Investigate Temporal and Spatial Variation of Regional Radiation

G. Louis Smith
NASA Langley Research Center
Directional Models for Use in Establishing Top-of-
Atmosphere Flux

A. Berroir
Laboratoire de Meteorologie Dynamique, Paris
Correlation Between Radiation Budget and Planetary Waves

R. Kandel
Service d'Aeronomie, France
Radiation Budget in the Sahel Region Using ERBE and Meteosat

E. Raschke
University of Cologne, Federal Republic of Germany
Ground Level Radiation Budget Components and Mean Cloudiness

Garry E. Hunt
University College London, London, United Kingdom
Investigate Effects of Clouds, Water Vapor and Surface
Parameters on Radiation Flux Measurements

Stratospheric Aerosol and Gas Experiment II

J. Lenoble
University of Sciences and Techniques of Lille, France
Data Retrieval Algorithms and Effect of Tropical Aerosols
on Radiative Balance

Theodore J. Pepin
University of Wyoming, Laramie
Instrument Characterization and Data Product Validation

Gerald W. Grams
Georgia Institute of Technology, Atlanta
Development of Aerosol Optical Models

Philip B. Russell
SRI International, Menlo Park, Calif.
Investigation of Aerosol Data Retrieval and Effect of
Aerosols on Radiation Balance

David Rind
Columbia University, Palisades, N.Y.
Investigation of Aerosol Transport Mechanisms Using Three-
Dimensional Models

Derek M. Cunnold
Georgia Institute of Technology
Ozone Data Product Formats and Ozone Chemistry Models

M. Hirono
Kyushu University, Japan
Validation of Data Products by Comparison with Auxiliary
Measurements

James D. Laver
National Meteorological Center
Investigations of Constituent Transport and Transient Phenomena

Giorgio Fiocco
Istituto di Fisica dell'Atmosfera, Rome
Investigation of Aerosols on Stratospheric Photochemistry
and Radiation Balance

David G. Murcray
University of Denver
Investigation of Ozone and Nitrogen Dioxide Data Retrieval

Halogen Occultation Experiment

John E. Harries
National Physical Laboratory, Teddington, United Kingdom
Correlative Measurements by Independent Unique Instruments

Walter G. Planet
National Oceanic and Atmospheric Administration
National Environmental Satellite Service, Washington, D.C.
Instrument Development Support and Data Retrieval

A. F. Tuck
Meteorological Office, Bracknell, United Kingdom
Use Measurements to Establish Model Validation and Limitations

John E. Frederick
NASA Goddard Space Flight Center
Investigation of Theories for Predicting Ozone Amount

Ralph J. Cicerone
University of California, San Diego
Investigation of Measurements Versus Model Predictions

Jae H. Park
NASA Langley Research Center
Instrument Development and Investigation of Stratospheric
Transport Mechanisms

Wayne F. J. Evans
Atmospheric Environment Service, Downsview, Canada
Correlative Measurements to Verify Data Accuracy

S. Roland Drayson
University of Michigan, Ann Arbor
Instrument Development and Data Inversion and Accuracy