

OFFICE OF THE FEDERAL COORDINATOR
FOR METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH
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**FEDERAL COMMITTEE FOR METEOROLOGICAL
SERVICES AND SUPPORTING RESEARCH
(FCMSSR)**

FCMSSR MEMORANDUM 98-5

October 15, 1998

MEMORANDUM FOR: FCMSSR Members

FROM: *James B. Harrison*
James B. Harrison
Executive Secretary

SUBJECT: Draft Record of Actions for 98-1 Meeting

Attached for your review is the draft Record of Actions for the FCMSSR 98-1 meeting of September 22, 1998. If you have any changes or additions, please call or send them to me by October 30, 1998. My telephone number is 301-427-2002. My e-mail address is james.harrison@noaa.gov.

Attachment

FCMSSR Members

DOC - Dr. D. James Baker, Chairman
- Mr. John J. Kelly, Jr., NOAA/NWS
OFCM - Mr. Samuel P. Williamson
DOD - CAPT David Martin, USN
DOE - Dr. Aristides Patrinos
DOI - Dr. Robert M. Hirsch
DOS - Mr. Ralph Braibanti
DOT - Mr. Monte Belger
EPA - Mr. Francis A. Schiermeier
FEMA - Mr. Michael J. Armstrong
NASA - Dr. Ghassem R. Asrar
NRC - Ms. Margaret Federline
NSF - Dr. Robert W. Corell
NTSB - Mr. Benjamin Berman
USDA - Mr. Albert Peterlin
OMB - Mr. Randolph Lyon

cc: Brig Gen Fred P. Lewis, DOD/USAF/XOW
Col Larry Freeman, DOD/USAF, Air Force Deputy to NOAA
RADM Winford G. Ellis, DOD/USN/CNO
RADM Kenneth E. Barbor, DOD/USN/CNMOC
RADM Paul Gaffney, DOD/USN/CNR
CAPT Fred C. Klein, DOD/USN, Naval Deputy to NOAA
Mr. Thomas Nelson, DOD/USN
RADM Ray Riutta, DOT/USCG
RADM William L. Stubblefield, DOC/NOAA Corps
Ms. Kay C. Goss, FEMA
Ms. Nancy Lopez, DOI/USGS
Mr. James H. Washington, DOT/FAA
Dr. Frances Sherertz, DOT/FAA
Dr. Richard Behnke, NSF
Ms. Sarah Laskin, OMB
Dr. Elbert W. Friday, Jr., NRC/BASC
Mr. Floyd Hauth, NRC/NWSMC
ICMSSR Members
OFCM Staff

FEDERAL COMMITTEE FOR METEOROLOGICAL
SERVICES AND SUPPORTING RESEARCH
(FCMSSR)

Record of Actions 98-1 Meeting

September 22, 1998

MEMBERS PRESENT

DOC: Dr. D. James Baker, Chairman
Mr. John J. Kelly, Jr.

DOD: Mr. Thomas Nelson

DOE: Mr. Rick Petty for Dr. Aristides Patrinos

DOI: Ms. Nancy Lopez for Dr. Robert M. Hirsch

DOT: Mr. James H. Washington for Mr. Monte Belger

EPA: Mr. Francis A. Schiermeier

FEMA: Mr. Michael J. Armstrong

NASA: Dr. Ghassem R. Asrar

NRC: Mr. Robert Kornasiewicz for Ms. Margaret Federline

NSF: Dr. Richard S. Greenfield for Dr. Robert W. Corell

NTSB: Mr. Benjamin Berman

USDA: Mr. Albert Peterlin

OMB: Ms. Sarah Laskin

OFCM: Mr. Samuel P. Williamson

Mr. James B. Harrison, Executive Secretary
Ms. Barbara J. Palmer, Recorder

INVITED PARTICIPANTS

DOC: RADM William L. Stubblefield, NOAA Corps

DOD: Brig Gen Fred P. Lewis, USAF
RADM Kenneth E. Barbor, USN
CAPT Fred C. Klein, USN, Naval Deputy to NOAA
CAPT Barry Donovan, USN/CNO
Col Larry E. Freeman, USAF, Air Force Deputy to NOAA

DOT: Mr. David Whatley, FAA
Dr. Frances Sherertz, FAA
Dr. Jonathan M. Berkson, USCG
Mr. Michael Freitas, FHWA

FEMA: Dr. Frank Y. Tsai
Ms. Kay C. Goss
Mr. O. Megs Hepler, III

NSF: Dr. Richard Behnke
NTSB: Mr. James Skeen
NAS: Dr. Elbert W. Friday, Jr., NRC/BASC
OFCM: Mr. Donald R. Carver, FAA
Lt Col (sel) Michael Babcock, USAF
Mr. Robert Dumont
Mr. Kenneth Barnett

Date of Issue: October 15, 1998

1. OPENING REMARKS

The meeting was called to order by the Chairman, Dr. D. James Baker. Dr. Baker welcomed the FCMSSR members and invited participants. All attendees introduced themselves. The Chairman noted that for a number of agencies the membership had changed since last year's meeting.

Dr. Baker discussed the history of the Federal Committee for Meteorological Services and Supporting Research and emphasized the Committee's importance in interagency coordination since the early 1960's. The Chairman provided thanks and special recognition to those who would address FCMSSR at this meeting. These were Dr. Frances Sherertz of the Federal Aviation Administration on accomplishments and activities in aviation weather services, Dr. Richard Behnke of the National Science Foundation on accomplishments and activities in space weather, and Mr. Samuel Williamson of the Office of the Federal Coordinator for Meteorology on OFCM's look to the future.

Dr. Baker reviewed the material made available to the members for the meeting and encouraged members to ask questions of the presenters and to raise any additional issues for discussion.

2. PROGRAM COUNCIL REPORTS

The National Aviation Weather and National Space Weather Program Councils report directly to FCMSSR in the interagency coordination process. These Program Councils and their supporting groups have made important contributions in their areas and continue to move ahead in ways that will enhance aviation weather and space weather services for the Nation.

Dr. Frances Sherertz of the Federal Aviation Administration and Chairperson of the Joint Action Group for Aviation Weather, reported on accomplishments and activities in aviation weather. Dr. Sherertz highlighted the importance and influence of aviation on our everyday lives. She noted that the safe and efficient operation of the National Airspace System is a national priority. In 1997 the White House Commission on Aviation Safety and Security called for an 80% reduction in the rate of aviation accidents by the year 2007. Weather is a factor in roughly 23% of all aviation accidents and annually costs the country an estimated \$3 billion for accident damage and injuries, delays, and unexpected operating costs. Reducing the number of weather-related accidents would be a significant step in achieving the overall goal of accident reduction and would result in major cost savings as well.

Aviation weather refers to atmospheric conditions at all levels which have an impact on commercial, military, and general aviation operations. Although we tend to think of

weather as limited to the state of the atmosphere in motion, we can extend the definition to include the introduction and movement of airborne objects such as dust and volcanic ash. Aviation weather information can then be taken to mean the description and communication of atmospheric conditions in order to support sound operational aviation decisions.

Dr. Sherertz stated that the purpose of the National Aviation Weather Program is to develop and implement an interagency vision of what the national aviation weather systems should be in the future. She described aviation weather systems in terms of facilities and equipment, processes and products, and education and decision-making. Dr. Sherertz noted that the next evolution in aviation weather systems would lead to improved weather-related safety and efficiency and decisions based on knowledge.

Dr. Sherertz referred to OFCM's Joint Action Group for Aviation Weather and the National Aviation Weather Program Strategic Plan which the JAG/AW prepared for the Program Council in April 1997. The Strategic Plan addresses aviation weather planning and leveraging in terms of improving weather information, enhancing abilities of decision makers, improving institutional arrangements, and encouraging directed, disciplined research. Dr. Sherertz then described a National Aviation Weather Initiatives document which the JAG/AW is preparing. This document draws on user inputs from throughout the aviation industry and identifies a small number of achievable, high impact initiatives which can be used as a common set of priorities for agency budgetary and operational planning. The initiatives can also provide common ground for continued and enhanced mutually beneficial cooperation among government, industry, and research organizations with the intent of making the operation of the National Airspace System safer and more efficient. The National Aviation Weather Initiatives document will be completed in the coming months.

Dr. Sherertz then noted the importance of agency support for improvements in aviation weather and stated that the most important result of improvement in aviation weather systems would be public confidence.

Dr. Richard Behnke of the National Science Foundation and Co-chairman of the Committee for Space Weather reported on accomplishments and activities in space weather. Dr. Behnke noted that space weather refers to conditions on the sun and in the solar wind, magnetosphere, and ionosphere/thermosphere that can influence the performance and reliability of space-borne and ground-based technological systems, and endanger human life. Space weather storms can cause disruption of satellites, communications, navigation, and electric power distribution grids. Dr. Behnke stated that the vision of the National Space Weather Program is to create an active, synergistic, interagency, single-minded system to achieve the goal of timely, accurate, and reliable space environment observations, specifications, and forecasts in the next ten years.

Dr. Behnke pointed out that society relies more and more on technological systems, most technological systems are becoming more vulnerable to space weather, and almost all space weather impacts will be amplified at the upcoming solar maximum. He noted that advances in space weather will result from new observational capabilities, computational tools, and modeling techniques. Dr. Behnke discussed National Space Weather Program scientific progress in terms of awards for research and papers presented at meetings of the American Geophysical Union, and he highlighted research being performed in selected areas of special importance.

Dr. Behnke described assessments of customer demand for space weather services including the National Security Space Architect's development of a national Space Weather Architecture for the years 2010-2025, workshops on space weather topics, a study of space weather needs for the U.S. commercial space industry, and a study on the impact of space weather on society. Dr. Behnke also described a proposed Community Coordinated Modeling and Development Center to help coordinate basic research, model development, and transition to operations. Dr. Behnke then identified the large number of Federal groups involved in space weather, and discussed work being done to establish metrics for measuring progress in this area. Dr. Behnke highlighted international activities being accomplished in space weather.

Dr. Behnke informed FCMSR that an update to the National Space Weather Program Implementation Plan is nearing completion. Dr. Behnke noted that the National Space Weather Program is advancing on all fronts and that an "active, synergistic, interagency system" is emerging.

Following the presentations on aviation weather and space weather there was discussion on the possibility of creating short video clips concerning these two areas. Among other uses the video clips could be used to help inform Congressional staff and Members in connection with program and budget discussions. Although no action was yet required to produce the video clips, it was decided to investigate their potential utility, to help determine whether video clips would be advantageous for either of these subjects.

ACTION ITEM 98-1.1: Video Clips. Frances Sherertz and Richard Behnke investigate the potential utility of creating short video clips concerning aviation weather and space weather, to help determine whether video clips would be advantageous for either of these subjects. Provide initial feedback to the Federal Coordinator. (Proposed suspense date: December 15, 1998)

3. **OFCM'S LOOK TO THE FUTURE**

Mr. Samuel P. Williamson, the Federal Coordinator for Meteorology, briefed FCMSR on restructuring OFCM for the 21st century. Mr. Williamson reviewed

with FCMSSR the inclusive approach which he followed in obtaining input from agencies and customers. Agency and customer outreach included FCMSSR and ICMSSR members, other agency points of contact, former Federal Coordinators, representatives of the research community and the private sector, and OFCM affiliations. This provided input to identifying priority areas, issues, problems, and ideas to help improve the effectiveness of interagency coordination and cooperation. In the analysis which led to the restructuring of OFCM four wide-ranging priority areas for the 21st century were identified. These were: environmental services and supporting research; environmental monitoring and prediction; technology innovation; and computing, communications, and information. For each of these, areas of focus were listed and matrices were prepared which showed relevance to the FCMSSR agencies.

In the resulting reorganized OFCM the Federal and Interdepartmental Committees remain the same, as do the National Space Weather and National Aviation Weather Program Councils. The Committee for Space Weather and the Committee for Aviation Services and Research continue to report to their respective Program Councils. The standing committees become: Environmental Services, Operations and Research Needs; Climate Monitoring and Services; Operational Processing Centers; Integrated Observing Systems; Environmental Information Systems and Communications; and Cooperative Research. In the restructured OFCM, the number of committees increased by two, and the number of working groups decreased by ten. Joint Action Groups will replace many working groups. The Joint Action Groups will focus on specific, time-critical issues.

Mr. Williamson informed FCMSSR that the Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR) approved the restructured OFCM. Implementation includes naming committee and working group chairpersons; assembling the committees and the working groups; developing Terms of Reference; and identifying high payoff, crosscutting issues on which to focus efforts. Examples of current efforts include aviation weather, space weather, the Year 2000 computer problem, radio spectrum issues, and natural disaster reduction (a top priority). Examples of other future efforts are coordinating the transition of research to operations, transportation needs (surface and waterways), information dissemination technologies, urban meteorology (air quality/pollutants and their effects on human health), marine coastal and ocean environments, climate (seasonal/long term variations and long term data sets), and high performance computing and communications (DOE's Accelerated Climate Prediction Initiative).

Mr. Williamson emphasized the importance of natural disaster reduction. He described it in terms of observations; products and services; information dissemination; education, public outreach and response; and research and technology. Mr. Williamson then discussed Hurricane Bonnie and Built Environment examples of

natural disaster reduction, and showed how the elements of natural disaster reduction apply to the Federal agencies. He noted that the new OFCM Committee for Environmental Services, Operations and Research Needs will direct the planning effort for natural disaster reduction issues within OFCM, and that the Working Group for Natural Disaster Reduction will serve as the Committee's executive agent for implementation. Mr. Williamson then identified key linkages with FEMA's Project Impact, the Committee on the Environment and Natural Resources (CENR) Subcommittee for Natural Disaster Reduction (SNDR), the Interagency Working Group for the U.S. Weather Research Program (NOAA/NASA/NSF/Navy), and NOAA/DOD modernization of environmental services. Mr. Williamson then identified goals and current shortfalls related to natural disaster reduction.

Mr. Williamson then highlighted some upcoming activities of the OFCM. He concluded his presentation by stating that

- (1) OFCM is necessary for effective interagency coordination and cooperation;
- (2) To take on significant interagency strategic planning initiatives, the OFCM needs additional resources and personnel; and
- (3) FCMSSR's commitment to and support of the interagency coordination process is critical to the success of the OFCM.

In the discussion which followed it was noted that the time is right to advocate atmospheric issues, and the meteorology community has more to offer than ever before. It is also important to demonstrate to the Office of Management and Budget that Federal agency activities in meteorology are well-coordinated. The interagency process is more important than ever before. There was additional mention of the usefulness of OFCM meeting with the General Services Administration to discuss incorporating information dissemination technologies in leases or contracts for building, and OFCM exploring ways to have an effective and mutually beneficial interface with the Office of Science and Technology Policy. There was discussion of the possibility of a joint meeting between FCMSSR and the National Research Council Board on Atmospheric Sciences and Climate. And there was discussion about the need for all Federal agencies to be sensitive about the public knowing who provides specific services to the nation.

Agency representatives were very supportive of the interagency coordination process and the Federal Coordinator for Meteorology. All agencies were asked to consider support to the OFCM to assist the coordinating process.

ACTION ITEM 98-1.2: General Services Administration. Sam Williamson meet with GSA to investigate the feasibility of having information dissemination technologies incorporated into GSA building structures (leased or purchased facilities). (Proposed suspense date: October 30, 1998)

ACTION ITEM 98-1.3: Office of Science and Technology Policy. Sam Williamson discuss with OSTP activities of the Office of the Federal Coordinator for Meteorology. Explore ways for OFCM to have an effective and mutually beneficial interface with OSTP. Also, explore OSTP membership on FCMSSR. (Proposed suspense date: November 13, 1998)

ACTION ITEM 98-1.4: FCMSSR and BASC Joint Meeting. Sam Williamson and Joe Friday arrange for a joint meeting between FCMSSR and the National Research Council Board on Atmospheric Sciences and Climate. (Proposed suspense date: October 30, 1998)

ACTION ITEM 98-1.5: Support for OFCM. All FCMSSR agencies consider support to the OFCM to assist the interagency coordinating process. Support could be staff assigned to or on loan to OFCM to work on specific projects, funding, or other. (Proposed suspense date: November 20, 1998)

4. **NEXT MEETING**

The Executive Secretary will schedule the next FCMSSR meeting in coordination with the Chairman.

The meeting adjourned at 4:20 p.m.