

U.S. DEPARTMENT OF COMMERCE/ National Oceanic and Atmospheric Administration

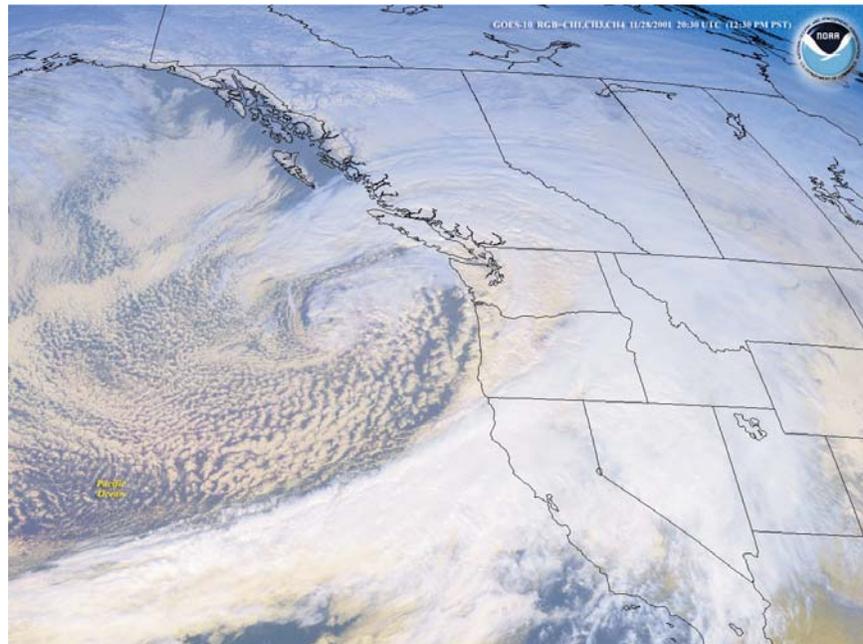
OFCM



OFFICE OF THE FEDERAL COORDINATOR FOR  
METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH

# National Winter Storms Operations Plan

FCM-P13-2005



GOES-10  
28 November 2001 20:30 UTC

Washington, DC  
December 2005

THE FEDERAL COMMITTEE FOR  
METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH (FCMSSR)

VADM CONRAD C. LAUTENBACHER, JR., USN (RET.) Chairman, Department of Commerce	MR. RANDOLPH LYON Office of Management and Budget
DR. SHARON HAYS (Acting) Office of Science and Technology Policy	MR. CHARLES E. KEEGAN Department of Transportation
DR. RAYMOND MOTHA Department of Agriculture	MR. DAVID MAURSTAD (Acting) Federal Emergency Management Agency Department of Homeland Security
BRIG GEN DAVID L. JOHNSON, USAF (RET.) Department of Commerce	DR. MARY L. CLEAVE National Aeronautics and Space Administration
MR. ALAN SHAFFER Department of Defense	DR. MARGARET S. LEINEN National Science Foundation
DR. ARISTIDES PATRINOS Department of Energy	MR. PAUL MISENCIK National Transportation Safety Board
DR. MAUREEN MCCARTHY Science and Technology Directorate Department of Homeland Security	MR. JAMES WIGGINS U.S. Nuclear Regulatory Commission
DR. MICHAEL SOUKUP Department of the Interior	DR. LAWRENCE REITER Environmental Protection Agency
MR. RALPH BRAIBANTI Department of State	MR. SAMUEL P. WILLIAMSON Federal Coordinator

MR. JAMES B. HARRISON, Executive Secretary  
Office of the Federal Coordinator for  
Meteorological Services and Supporting Research

---

THE INTERDEPARTMENTAL COMMITTEE FOR  
METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH (ICMSSR)

MR. SAMUEL P. WILLIAMSON, Chairman Federal Coordinator	MS. LISA BEE Federal Aviation Administration Department of Transportation
MR. THOMAS PUTERBAUGH Department of Agriculture	DR. JONATHAN M. BERKSON United States Coast Guard Department of Homeland Security
MR. JOHN E. JONES, JR. Department of Commerce	MR. JEFFREY MACLURE Department of State
MR. ROBERT WINOKUR, USN (Acting) United States Navy Department of Defense	DR. S. T. RAO Environmental Protection Agency
BRIG GEN THOMAS E. STICKFORD, USAF United States Air Force Department of Defense	MR. JOHN GAMBEL Federal Emergency Management Agency Department of Homeland Security
MR. RICKEY PETTY Department of Energy	DR. RAMESH KAKAR National Aeronautics and Space Administration
MR. CHRISTOPHER DOYLE Science and Technology Directorate Department of Homeland Security	DR. JARVIS MOYERS National Science Foundation
MR. JOHN VIMONT Department of the Interior	MR. DONALD E. EICK National Transportation Safety Board
MS. REGINA MCELROY Federal Highway Administration Department of Transportation	MS. LETA A. BROWN U.S. Nuclear Regulatory Commission
	MS. ANDREA PETRO Office of Management and Budget

MR. JAMES B. HARRISON, Executive Secretary  
Office of the Federal Coordinator for  
Meteorological Services and Supporting Research

**FEDERAL COORDINATOR  
FOR  
METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH**

8455 Colesville Road, Suite 1500  
Silver Spring, Maryland 20910  
301-427-2002  
[www.ofcm.gov](http://www.ofcm.gov)

**NATIONAL WINTER STORMS  
OPERATIONS PLAN**

FCM-P13-2005

Washington, D.C.  
December 2005

## CHANGE AND REVIEW LOG

Use this page to record changes and notices of reviews.

Change Number	Page Numbers	Date Posted	Initial
1	pgs 1-2, 1-3; pgs 2-1 thru 2-4; pgs 3-2 thru 3-7	15 Nov 07	rjd
2			
3			
4			
5			
6			
7			
8			
9			
10			

Review Date	Comments	Initial

## FOREWORD

This is the 28th edition of the *National Winter Storms Operations Plan* (NWSOP). The purpose of the plan is to coordinate the efforts of the Federal meteorological community to provide enhanced weather observations of severe winter storms that impact the coastal regions of the United States. The goal is to improve the accuracy and timeliness of severe winter storm forecast and warning services provided by the Nation's weather service organizations. These forecast and warning responsibilities are shared by the National Weather Service, within the Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA), and the weather services of the United States Air Force and the United States Navy, within the Department of Defense. While the plan documents requirements for surface, upper air, and satellite observations of all types, it focuses on the coordination of requirements for aircraft weather reconnaissance observations provided by the Air Force Reserve Command's 53rd Weather Reconnaissance Squadron and NOAA's Aircraft Operations Center.

During January and February of 1998, winter storm missions were flown in the Northeast Pacific Ocean in support of an adaptive observing strategy experiment called NORPEX 98. Similar missions were successfully flown during the 1999 and 2000 seasons and have resulted in a continuing requirement to conduct winter storm missions in the North Pacific Ocean east of the international date line.

Within the organizational infrastructure of the Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM), the Working Group for Hurricane and Winter Storms Operations and Research (WG/HWSOR) is responsible for maintaining the plan. The 2004 edition of the plan was published in both hard copy and on the OFCM web site because the winter storm flight tracks for the Atlantic and Gulf of Mexico, Alaska, and Hawaii had undergone an extensive revision. While there are a number of revisions to this year's plan, they are considered to be relatively minor, and the tracks were not revised. As a result, this edition of the plan is being published as a web-only edition.

Samuel P. Williamson  
Federal Coordinator for Meteorological  
Services and Supporting Research



## TABLE OF CONTENTS

<b>CHANGE AND REVIEW LOG</b> .....	ii
<b>FOREWORD</b> .....	iii
<b>TABLE OF CONTENTS</b> .....	v
<b>LIST OF FIGURES</b> .....	vii
<b>LIST OF TABLES</b> .....	viii
<b>CHAPTER 1 RESPONSIBILITIES OF COOPERATING AGENCIES</b> .....	1-1
1.1    General.....	1-1
1.2    Responsibilities.....	1-1
<b>CHAPTER 2 AIRCRAFT RECONNAISSANCE</b> .....	2-1
2.1    General.....	2-1
2.2    Responsibilities.....	2-1
2.3    Operational Control of Aircraft .....	2-2
2.4    Reconnaissance Planning and Flight Notification .....	2-2
2.5    Reconnaissance Flights.....	2-8
<b>CHAPTER 3 OTHER OBSERVATIONS</b> .....	3-1
3.1    General.....	3-1
3.2    Satellite Observations .....	3-2
3.3    Automated Coastal Marine and Ocean Observations .....	3-8
<b>CHAPTER 4 COMMUNICATIONS</b> .....	4-1
4.1    Department of Commerce.....	4-1
4.2    Department of Defense (DOD).....	4-1
4.3    U.S. Coast Guard .....	4-1
<b>CHAPTER 5 PUBLICITY</b> .....	5-1
5.1    News Media Releases .....	5-1
5.2    Distribution .....	5-1

<b>APPENDIX A</b>	<b>ABBREVIATIONS</b> .....	<b>A-1</b>
<b>APPENDIX B</b>	<b>DEFINITIONS</b> .....	<b>B-1</b>
<b>APPENDIX C</b>	<b>AIR TRAFFIC CONTROL CLEARANCE LETTER</b> .....	<b>C-1</b>
<b>APPENDIX D</b>	<b>ALTITUDE RESERVATION APPROVAL REQUEST</b> .....	<b>D-1</b>
<b>APPENDIX E</b>	<b>FORMAT FOR NHOP/NWSOP FLIGHT INFORMATION FOR INTERNATIONAL AND DOMESTIC NOTAM ISSUANCE</b> .....	<b>E-1</b>
<b>APPENDIX F</b>	<b>ATLANTIC AND GULF OF MEXICO FLIGHT TRACKS</b> .....	<b>F-1</b>
<b>APPENDIX G</b>	<b>ALASKAN FLIGHT TRACKS</b> .....	<b>G-1</b>
<b>APPENDIX H</b>	<b>HAWAIIAN FLIGHT TRACKS</b> .....	<b>H-1</b>
<b>APPENDIX I</b>	<b>OFFICIAL INTERAGENCY AGREEMENTS</b> .....	<b>I-1</b>
<b>APPENDIX J</b>	<b>RECCO FORM, CODE TABLES, AND REGULATIONS</b> .....	<b>J-1</b>
<b>APPENDIX K</b>	<b>TEMP DROP CODE</b> .....	<b>K-1</b>
<b>APPENDIX L</b>	<b>DISTRIBUTION</b> .....	<b>L-1</b>

## LIST OF FIGURES

<b>Number</b>	<b>Figures</b>	<b>Page</b>
Figure 2-1.	Sample mission evaluation form.....	2-5
Figure 2-2.	National Winter Storms Operations Plan Coordination Request .....	2-6
Figure 2-3.	Winter Storm Plan of the Day (WSPOD) Format .....	2-7
Figure F-1.		
through		
Figure F-6.	Atlantic and Gulf of Mexico Flight Tracks .....	F-2 to F-7
Figure G-1		
through		
Figure G-29	Alaskan Flight Tracks .....	G-2 to G-30
Figure H-1		
through		
Figure H-26	Hawaiian Flight Tracks.....	H-2 to H-27
Figure J-1.	Reconnaissance code recording form .....	J-2
Figure K-1.	Example TEMP DROP Message.....	K-6

## LIST OF TABLES

<b>Number</b>	<b>Title</b>	<b>Page</b>
Table 3-1.	Satellites and Satellite Data Availability for the National Winter Storms Operations Plan .....	3-6
Table 3-2.	Moored buoy payload data .....	3-9
Table 3-3.	Data from a typical fixed C-MAN station.....	3-10
Table 4-1.	Reconnaissance organization contact information .....	4-2
Table J-1.	Reconnaissance code tables.....	J-3
Table J-2.	Reconnaissance code regulations .....	J-5