

Making documentation relating to the marine codes and formats available on the web

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Introduction

Marine codes and formats have been changed several times in the long history of marine observation and data accumulation. Because codes and formats prescribe the way of recording observations and therefore influence the quality of the data record, it is necessary to understand the code and format change in order to make correct interpretation of the data record contained in long term archives. A study on the history of marine codes and formats was carried out based on the WMO documents which has been providing regulations and international standards for marine observations and how to record the observations since the early days of international exchange of marine data. Along with the study, an effort to digitize past WMO CSM/CBS and CMW summary reports, in which resolutions, recommendations and those annexes relating to codes and formats changes are contained, was made. The digitized summary reports are made available on the web, so that they could be easily referred by all people concerned to facilitate the study that use the historical marine observations.

A study on the history of marine codes and formats

Changes of the marine ship code for maritime meteorological data exchange, the IMMPC (International Maritime Meteorological Punch Card) / IMM (International Marine Meteorological Tape) format for long-term archiving, and the MOCS (Minimum Quality Control Standard) for marine meteorological data quality control were traced based on the past WMO documents such as Manual on Codes, Guide to Marine Meteorological Services, and meeting reports of CSM/CBS and CMW/CMOM sessions.

Result of the study was summarized in tables which contain concise description of each change, the date when the change became in effect, and the reference of resolution and recommendation concerning the change. Each of these references is linked to the full text of relevant resolution or recommendation and its annexes, so that users could reach the original complete information on the change.

The table has been made available on the web.

This study will be extended to oceanographic code such as BATHY and TESAC for sub-surface profile data, DRIFT-BUOY for drifting and moored buoy and TRACKOB for underway oncangraphic observations.

Digitization of past publications on codes and formats

Among a lot of marine meteorological related publications, summary reports of the past sessions of WMO CSM (Commission for Synoptic Meteorology) and CBS (Commission for Basis System), the successor of CSM, which is in charge of all meteorological codes including marine codes for real time international exchange, and CMM (Commission for Marine Meteorology), which is in charge of marine data format and quality control procedure, such as IMMPC/IMM and MQCS, were digitized. All the scanned image files were converted into searchable PDF files under the NOAA Climate Database Modernization Program (CDMP), and made available on the web.

Digitized "Final reports of the sessions of CMW/CMOM and CSM/CBS" web page

SESSION	SESSION DATE	SESSION PLACE	SESSION NUMBER
COMMISSION FOR MARINE METEOROLOGY	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04
SIXTH SESSION	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04
WORLD METEOROLOGICAL ORGANIZATION	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04

"History of SHIP codes" web page: http://gois.kishou.go.jp/wse/FETM0/code_ksw/

History of FM 13-SHIP, FM 21-SHIP, FM 22-SHIP, FM 23-SHRED, FM 24-SHIP(CM) and FM 26-SPESH			
Period of each code in effect			
CODE	From	To	Recommendation
FM 13-SHIP	1 Jan. 1982	now in effect	
FM 21-SHIP	1989	31 Dec. 1981	
FM 22-SHIP	1989	31 Dec. 1981	
FM 23-SHRED	1989	31 Dec. 1981	
FM 24-SHIP(CM)	1 July 1987	31 Dec. 1989	
FM 24-SHIP	1 Jan. 1989	31 Dec. 1981	
FM 26-SPESH	1989	31 Dec. 1981	

"History of IMMPC/IMM" web page

History of IMMPC/IMM			
Description of each change with resolution and recommendation			
Date in effect	Description of change	Resolution	Recommendation
1 Jan. 2003	IMM is introduced (modifications to IMM-1 format to IMM-2 format) - I incorporated new data elements required by the OSCAR Project	Res. 7. EC-LIV (June 2002)	Rec. 8. CMM(X) (June 2003)
1 Jan. 1998	Introduction of ISO Alpha-2 country code into IMM format	Res. 8. C-S-X/LX (June 1997)	Rec. 8. CMM(X) (Oct. 1997)
1 Jan. 1992	IMM is introduced (modifications to IMM-1 format) - IMM-1 is introduced	Res. 8. EC-LIV (June 1992)	Rec. 8. CMM(X) (April 1993)
1 Mar. 1985	Modification to IMMPC and IMM - Initiation of weather data indicator to be recorded*	Res. 8. EC-XXXVII (June 1985)	Rec. 5. CMM(X) (Oct. 1984)
1 Mar. 1984	Amendments to IMMPC and IMM - Revision of IMMPC format - Revision of IMMPC in accordance with FM 5.0/SHIP	Res. 8. EC-XXXIV (June 1983)	Rec. 5. CMM(X) (Sept. 1983)
1 Mar. 1986	Amendments to IMMPC and IMM - Modification of weather data indicator to be recorded*	Res. 14. EC-XLII (May 1986)	Rec. 28.CMM(X) (Nov. 1984)
1 Mar. 1982	Amendments to technical regulations, etc. - Revision of the IMMPC and - Revision of the IMMPC format	Res. 12. MM-III (Aug. 1982)	Rec. 2. CMM(X) (Aug. 1982)
1 Jan. 1992	- Re-allocation of numbers indicating the country of origin - Date of change of IMMPC	Res. 18. EC-XIII (May 1992)	Rec. 24. CMM(III) (Aug. 1992)
1 May 2000	Amendments to technical regulation: - International maritime punch card should be used - Adoption of international code form for punching cards from ship observations	Res. 33. EC-IX (May 1997)	Attachment to Rec. 30. Rec. 30
1 Nov. 1989	FM 13-X Ext. SHIP is made (amendments to FM 13-X SHIP) - Show certain data and possible confusion in the relation group and group 5 of section 3	Res. 7. DBS-XL (Oct. 1989)	Rec. 2. CMM(III) (Aug. 1982)
1 Nov. 1984	FM 13-X SHIP is made (modified) - Add new items - Systematically report present, past weather temp., clouds and waves	Res. 9. DBS-X (Sept. 1983)	Rec. 24. CMM(III) (Aug. 1992)
1 Nov. 1983	FM 13-X SHIP is made (amendments to FM 13-X SHIP) - Procedure to report net short wave and direct solar radiation	Res. 4. EC-XLII (May 1983)	Rec. 30. CMM(III) (Oct. 1985)
1 Nov. 1981	FM 13-X Ext. SHIP is made (modification to FM 13-X SHIP) - Pressure reading algorithm - Total amount of pressure regulation - Actual range of pressure regulation	Res. 8. EC-XLII (May 1981)	Rec. 23. CD (1981)
1 Nov. 1989	FM 13-X Ext. SHIP is made modification to FM 13-X SHIP - Show certain data - Precipitation data - Daily amount of precipitation (evaporate/inspiration). - Precipitation data and amount of sun/rainfall data	Res. 12. CBS-X (Jan. 1989)	Rec. 12. CBS-X (Jan. 1988)
1 Nov. 1988	FM 13-XM Ext. SHIP is made (amendments to FM 13-XM SHIP) - Present weather from automatic ship stations - Broader use of N / - Present weather from automatic ship stations - Improvements in the stipulations, notes and specifications	Res. 5. 10. DBS-Ext. (Nov. 1988)	Rec. 5. EC-XXXVIII (June 1988)
1 Nov. 1985	FM 13-XM SHIP is modified - Revision of the notes on the codes	Res. 6. CBS-VIII (Jan. 1985)	Rec. 6. CBS-VIII (Jan. 1985)
1 Jan. 1984	FM 13-XM SHIP is introduced (deletion of FM 21-SHIP and FM 24-SHIP) - FM 21-SHIP, FM 22-V SHIP and FM 23-V SHIP are made	Res. 5. EC-XXXI (Nov. 1983)	Rec. 5. CBS-VII (Nov. 1983)
1 Jan. 1979	FM 21-SHIP, FM 22-V SHIP and FM 23-V SHIP - Revision of ice scale - Revision of ice scale group	Res. 9. CBS-Ext. (7/6)	Rec. 9. CBS-Ext. (7/6)
1 Jan. 1978	FM 21-SHIP, FM 22-V SHIP and FM 23-V SHIP - FM 21-SHIP, FM 22-V SHIP and FM 23-V SHIP - FM 21-SHIP, FM 22-V SHIP and FM 23-V SHIP - Revision of the notes on the codes Res. 5. EC-XLII (May 1977)	Res. 12. CBS-Ext. (7/6)	Rec. 12. CBS-Ext. (7/6)
1 Jan. 1978	Section 1 of FM 21-SHIP is introduced - General introduction of FM 24-SHIP and general introduction in 1975 - General introduction of FM 24-SHIP and general introduction in 1975 - Revision of the notes on the codes Res. 5. EC-XLII (May 1977)	Res. 14. EC-XXI (May 1977)	Rec. 22. CMM(II) (June 1977)
1 Jan. 1972	General introduction of FM 24-SHIP and general introduction in 1975 - Revision preference for other codes over FM 24-SHIP - However preference for other codes over FM 24-SHIP was recommended in Rec. 7	Res. 14. EC-XXI (May 1972)	Rec. 22. CMM(II) (June 1972)

Each reference is linked to the full text of relevant resolution or recommendation and its annexes.

A full report is available on the web

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COMMISSION FOR MARINE METEOROLOGY	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04
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WORLD METEOROLOGICAL ORGANIZATION	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04	2004-06-01 ~ 2004-06-04

Annex to Recommendation 9 (C24-Ext./7/6)

ANNEX X	
MEMBERS IN MARINE CODES	SEA, ICE GROUP FOR INCLUSION IN CODES FM 13-SHIP, FM 22-V SHIP, and FM 23-V SHIP
Replaces the group {ICE + G20+ ICE + G20+}	by the group {ICE + G20+ ICE + G20+}
Specification of symbolic letters:	C24-Ext./7/6
C24-Ext./7/6 - Generation or arrangement of sea ice	