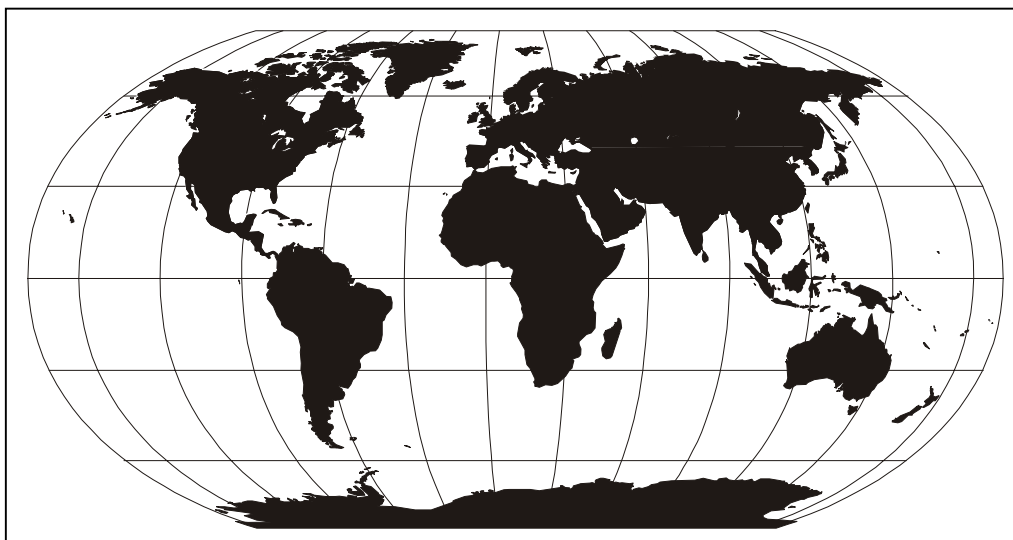




OPERATIONAL NEWSLETTER

World Weather Watch and Marine Meteorological Services



WORLD METEOROLOGICAL ORGANIZATION
GENEVA
SWITZERLAND

No. 01/02 - 2000
(January/February 2000)

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EDITORIAL

The Operational Newsletter provides information on the World Weather Watch and Marine Meteorological Services and has been issued since 1982 at the request of the Commission for Basic Systems. It is distributed by the World Meteorological Organization Secretariat and is aimed at providing World Weather Watch Centres with a summary of the latest operational information on:

- *The Global Observing System*
- *The Global Telecommunication System*
- *The Global Data-Processing System*
- *Data Management*
- *Codes*
- *Marine Meteorological Services*

A feedback form is included in the Newsletter to assist WMO Members in reporting changes in the present status of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations.

Your co-operation in ensuring that the above information reaches the appropriate operational units of your service is greatly appreciated.

Should you have any difficulties downloading, viewing or printing the Newsletter, please do not hesitate to contact us.

We look forward to hearing from you!

Acknowledgements:

The WMO Secretariat would like to express its appreciation to all those who have contributed material to the "Operational Newsletter".

Operational Newsletter:

6 issues per year:

January/February

March/April

May/June

July/August

September/October

November/December

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FORTHCOMING MEETINGS - 2000

Related to: The World Weather Watch and Marine Meteorological Services

The meetings relating to the Commission for Basic Systems (CBS) reflect the new working structure of the Commission, which was adopted at the Extra-Ordinary Session, held in September/October 1998 in Karlsruhe, Germany. For more information, please refer to the CBS-Ext. (98).

Terminology adopted by CBS and used below:

CBS/OPAG-IOS	Commission for Basic Systems/Open Programme Area on Integrated Observing Systems
CBS/OPAG-ISS	Commission for Basic Systems/Open Programme Area on Information Systems and Services
CBS/OPAG-DPFS	Commission for Basic Systems/Open Programme Area on Data-processing and Forecasting Systems
CBS/OPAG-PWS	Commission for Basic Systems/Open Programme Area on Public Weather Services

Date	Place	Title of the Meeting
29 February - 6 March 2000	Oman, Muscat	WMO/ESCAP Panel on Tropical Cyclones - 27 th Session
9-11 March 2000	Toulouse, France	CBS Expert Team on Impact of changes to GOS
28-31 March 2000	La Jolla, CA, USA	JCOMM SOOP Implementation Panel - 3 rd Session
7-8 April 2000	Miami, USA	Workshop of Public Weather Services
10-14 April 2000	Asheville, NC, USA	JCOMM Subgroup on Marine Climatology - 8 th Session
10-14 April 2000	Santo Domingo, Dominican Republic	RA IV Working Group on Planning and Implementation of WWW
8-12 May 2000	Geneva	CBS/OPAG-ISS/ET on Quantity Monitoring of WWW
25 May 2000	Geneva	CBS/OPAG-ISS/ICT on Information Exchange Management
3-7 July 2000	Lannion, France	CBS/OPAG-IOS/ET On Improving Satellite Systems Utilization and Product
10-14 July 2000	Montreal, Canada	PWS Expert Team on Warnings and Forecasts Exchange Issues
27 November-8 December 2000	Geneva	Commission for Basic Systems - 12 th Session

I. GLOBAL OBSERVING SYSTEM

1. AUTOMATIC MARINE STATIONS

KEY: Observed or Technical Parameters

Column	Parameters	Column	Parameters
1	Wind direction, speed and peak wind	12	Battery Voltage (BV)
2	Air temperature	13	Dew Point
3	Air pressure	-	Parameter not observed
4	Pressure tendency	X	Buoy observes this parameter
5	Sea-surface temperature	.	Data under evaluation, not reported
6	Wave period and height		
7	Wave spectra	B	Buoy beached, sensor reporting
8	Drogued	N	No sensor installed
9	Subsurface temperatures	Q	Data questionable, but reported
10	Relative humidity	R	Buoy Retrieved
11	Visibility	S	Sensor/system failure

CANADA

ODAS REPORT

Moored Buoys North-east Pacific Ocean (SNVD17 & SXCN50 CWVR, SNVD04 CWEG)

WMO Buoy ID	ARGOS ID	Position: 7 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
46004	7195	50 59' N	135 48' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46036	5324	48 21' N	133 56' W	X	*	X	X	X	X	X	X	N/A	-	-	-	-
46131	N/A	49 54' N	124 59' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46132	7196	49 44' N	127 56' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46145	7183	54 23' N	132 25' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46146	N/A	49 20' N	123 44' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46147	7184	51 50' N	131 14' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46181	N/A	53 50' N	128 50' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46183	7186	53 37' N	131 07' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46184	7180	53 56' N	138 53' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46185	7194	52 25' N	129 47' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46204	4484	51 22' N	128 45' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46205	7185	54 10' N	134 17' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46206	7187	48 50' N	126 00' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46207	4485	50 53' N	129 55' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-
46208	7197	52 31' N	132 42' W	X	X	X	X	X	X	X	X	N/A	-	-	-	-

Moored Buoys North-west Atlantic Ocean

WMO Buoy ID	ARGOS ID	Position: 7 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
44137	5579	41 50' N	060 56' W	*	*	*	*	*	*	*	N/A	-	-	-	-	-
44138	5577	44 16' N	053 37' W	X	X	X	X	X	X	X	N/A	-	-	-	-	-
44139	3448	44 16' N	057 22' W	*	*	*	*	*	*	*	N/A	-	-	-	-	-
44140	5576	43 50' N	051 30' W	X	X	X	X	X	X	X	N/A	-	-	-	-	-
44141	3449	42 05' N	056 19' W	X	*	X	X	X	X	X	N/A	-	-	-	-	-
44142	5578	42 30' N	064 01' W	X	X	X	X	X	X	X	N/A	-	-	-	-	-
44251	9234	46 26' N	053 23' W	X	X	X	X	X	X	X	N/A	-	-	-	-	-
44255	9233	47 17' N	057 21' W	X	X	X	X	X	X	X	N/A	-	-	-	-	-

Moored Buoys Gt Slave Lk., Lk. Winnipeg, Great Lks., Gulf of St. Lawrence

WMO Buoy ID	ARGOS ID	Position: 7 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
45132	N/A	42 28' N	081 13' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45135	N/A	43 47' N	076 52' W	X	X	X	X	X	X	X	N/A	-	-	-	-	-
45136	N/A	48 32' N	086 57' W	*	*	*	*	*	*	*	N/A	-	-	-	-	-
45137	N/A	45 33' N	081 01' W	*	*	*	*	*	*	*	N/A	-	-	-	-	-
45138	3436	49 33' N	065 46' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45139	N/A	43 26' N	079 23' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45140	3439	50 48' N	096 44' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45141	N/A	61 11' N	115 19' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45142	N/A	42 44' N	079 17' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45143	N/A	44 55' N	080 38' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45144	8671	53 15' N	098 50' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45150	3439	61 55' N	113 45' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45151	N/A	44 30' N	079 22' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45152	N/A	46 14' N	079 43' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-
45154	N/A	46 03' N	082 38' W	.	.	.	.	.	.	.	N/A	-	-	-	-	-

Drifting Buoys Pacific Ocean

WMO Buoy ID	ARGOS ID	Position: 1 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
46661	12521	39 12' N	125 54' W	X	*	X	X	X	.	.	X	-	-	-	-	-
46692	12513	25 42' N	138 30' W	*	X	X	X	X	.	.	X	-	-	-	-	-
46698	12515	28 54' N	118 18' W	*	*	X	X	X	.	.	X	-	-	-	-	-
46701	12510	46 30' N	164 42' W	X	X	X	X	X	.	.	X	-	-	-	-	-
46710	12516	41 00' N	170 30' W	X	X	X	X	X	.	.	X	-	-	-	-	-

Remarks:

44138 - Buoy transmitting weather messages using Argos.
 44140 - Redeployed Oct 5/99.
 44141 - Re-deployed June 29/99. Air temp failed Nov 10/99.
 44251 - Xmitter problems. Frequent incomplete messages. Payload problems. Frequent Data Buffer Empty messages.
 45132 - Buoy removed for the winter Nov 23/99
 45135 - Serviced July 26/99
 45136 - Buoy removed for the winter Nov 99.
 45138 - Buoy removed for the winter Dec 2/99.
 45139 - Buoy removed for the winter Oct 09/99.
 45140 - Buoy removed for the winter Oct 23/99.
 45141 - Buoy removed for the winter Oct 20/99.
 45142 - Buoy removed for the winter Nov 23/99.
 45143 - Buoy removed for the winter Nov 17/99.
 45144 - Buoy removed for the winter Nov 08/99.
 45150 - Buoy removed for the winter Sept 30/99.
 45151 - Buoy removed for the winter Oct 21/99.
 45152 - Buoy removed for the winter Sept 28/99.
 45154 - Buoy removed for the winter Nov 25/99.
 46036 - Buoy serviced May 9/99. Air temperature failed Oct 26/99
 46132 - Buoy serviced May 7/99.
 46145 - Stopped transmitting Oct 1/99. Serviced Oct 21/99
 46183 - Anemometers replaced July 19/99.

46184 - Buoy serviced May 11/99.
 46207 - Buoy serviced May 15/99. Pwr Failure Dec 8/99. Buoy Serviced Jan 5/00.
 46632 - Drifted west of 180 deg. July 20/99.
 46661 - Air temp. failed Sept. 98
 46692 - Wind failed Nov.20/98.
 46698 - Air temp. failed Oct 05/98. Wind disabled Jan 28. Possibly aground.
 46701 - Drifter deployed Nov 18/99.
 46710 - Drifter deployed Jan 7.

Failed:

44137 - Failed due to low battery voltage Nov 6/99.
 44139 - Stopped transmitting Jan 9/00.
 45137 - Exchanged Xmitr July 22, failed July 24/99.

UNITED STATES OF AMERICA

List of U.S.A. Ocean Data Acquisition Systems (ODAS) included in the Data Platform Status Report of the Data Buoy Centre of the National Oceanic and Atmospheric Administration (NOAA) on 25 February 2000. Geostationary meteorological satellites collect data from moored buoys and platforms and reports are distributed on the GTS in SHIP code. Data from drifting buoys are collected by the ARGOS system and distributed on the GTS in DRIFTER CODE.

Moored Buoys

WMO Buoy ID	ARGOS ID	Position: 17-24 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
41001*		34.68N	72.64W	R	R	R	-	R	R	R	-	-	-	-	-	N
41002*		32.28N	75.20W	X	X	X	-	X	X	X	-	-	-	-	-	N
41004*		32.50N	79.10W	X	X	X	-	X	X	X	-	-	-	-	-	X
41008*		31.40N	80.87W	X	X	X	-	X	X	X	-	-	-	-	-	X
41009		28.50N	80.18W	X	X	X	-	X	X	X	-	-	-	-	-	N
41010		28.89N	78.52W	X	X	X	-	X	X	X	-	-	-	-	-	N
42001*		25.92N	89.68W	X	X	X	-	X	X	X	-	-	-	-	-	X
42002*		25.89N	93.57W	X	X	X	-	X	X	X	-	-	-	-	-	X
42003*		25.94N	85.91W	X	X	X	-	X	X	X	-	-	-	-	-	N
42007*		30.09N	88.74W	X	X	X	-	X	X	X	-	-	-	-	-	X
42019*		27.92N	95.35W	S	S	S	-	S	S	S	-	-	-	-	-	N
42020*		26.92N	96.70W	X	X	X	-	S	X	X	-	-	-	-	-	X
42035*		29.25N	94.41W	X	X	X	-	X	X	X	-	-	-	-	-	X
42036*		28.51N	84.51W	X	X	X	-	X	S	S	-	-	-	-	-	X
42039		28.78N	86.04W	X	X	X	-	X	X	X	-	-	-	-	-	X
42040		29.21N	88.20W	X	X	X	-	X	X	X	-	-	-	-	-	X
42041		27.23N	90.43W	X	X	X	-	X	X	X	-	-	-	-	-	N
44004*		38.46N	70.69W	X	X	X	-	X	X	X	-	-	-	-	-	N
44005*		42.90N	68.95W	X	X	X	-	X	X	X	-	-	-	-	-	N
44007*		43.53N	70.14W	X	X	X	-	X	X	X	-	-	-	-	-	X
44008*		40.50N	69.43W	S	X	X	-	X	X	X	-	-	-	-	-	X
44009*		38.46N	74.70W	X	X	X	-	X	X	X	-	-	-	-	-	N
44011*		41.08N	66.58W	R	R	R	-	R	R	R	-	-	-	-	-	N

44013*		42.35N	70.69W	X	X	X	-	X	X	X	-	-	-	-	-	X
44014		36.58N	74.83W	X	X	X	-	S	X	X	-	-	-	-	-	N
44025*		40.25N	73.17W	X	X	X	-	X	S	S	-	-	-	-	-	X
45001*		48.06N	87.78W	R	R	R	-	R	R	R	-	-	-	-	-	N
45002*		45.31N	86.42W	R	R	R	-	R	R	R	-	-	-	-	-	N
45003*		45.35N	82.84W	R	R	R	-	R	R	R	-	-	-	-	-	N
45004*		47.56N	86.55W	R	R	R	-	R	R	R	-	-	-	-	-	N
45005*		41.68N	82.40W	R	R	R	-	R	R	R	-	-	-	-	-	N
45006*		47.32N	89.87W	R	R	R	-	R	R	R	-	-	-	-	-	N
45007*		42.67N	87.02W	R	R	R	-	R	R	R	-	-	-	-	-	N
45008*		44.28N	82.42W	R	R	R	-	R	R	R	-	-	-	-	-	N
46001*		56.30N	148.17W	X	X	X	-	X	X	X	-	-	-	-	-	N
46002*		42.53N	130.26W	R	R	R	-	R	R	R	-	-	-	-	-	R
46003*		51.85N	155.92W	R	R	R	-	R	R	R	-	-	-	-	-	N
46005*		46.08N	131.00W	X	X	X	-	X	X	X	-	-	-	-	-	N
46006*		40.84N	137.49W	S	S	S	-	S	S	S	-	-	-	-	-	N
46011*		34.88N	120.87W	R	R	R	-	R	R	R	-	-	-	-	-	R
46012*		37.39N	122.73W	X	X	X	-	X	X	X	-	-	-	-	-	N
46013*		38.23N	123.33W	X	X	X	-	X	X	X	-	-	-	-	-	X
46014*		39.22N	123.97W	X	X	X	-	X	X	X	-	-	-	-	-	N
46022*		40.74N	124.51W	R	R	R	-	R	R	R	-	-	-	-	-	N
46023		34.71N	120.97W	X	X	X	-	X	X	X	-	-	-	-	-	X
46025*		33.75N	119.08W	X	X	X	-	X	X	X	-	-	-	-	-	X
46026*		37.76N	122.83W	X	X	X	-	X	X	X	-	-	-	-	-	X
46027*		41.85N	124.38W	X	X	X	-	X	X	X	-	-	-	-	-	N
46028*		35.74N	121.89W	S	S	S	-	S	S	S	-	-	-	-	-	N
46029*		46.12N	124.50W	R	R	R	-	R	R	R	-	-	-	-	-	N
46030*		40.42N	124.53W	X	X	X	-	X	X	X	-	-	-	-	-	N
46035*		56.91N	177.81W	X	X	X	-	X	X	X	-	-	-	-	-	N
46041*		47.33N	124.75W	X	X	X	-	X	X	X	-	-	-	-	-	N
46042*		36.75N	122.42W	X	X	X	-	X	X	X	-	-	-	-	-	X
46047*		32.43N	119.53W	X	X	X	-	X	X	X	-	-	-	-	-	X
46050*		44.62N	124.53W	X	X	X	-	X	X	X	-	-	-	-	-	N
46053*		34.24N	119.85W	X	X	X	-	X	X	X	-	-	-	-	-	N
46054		34.27N	120.45W	X	X	X	-	X	X	X	-	-	-	-	-	N
46059*		37.98N	130.00W	X	X	X	-	X	X	X	-	-	-	-	-	N
46060*		60.58N	146.83W	X	X	X	-	X	X	X	-	-	-	-	-	N
46061*		60.21N	146.84W	X	X	X	-	X	X	X	-	-	-	-	-	N
46062		35.10N	121.01W	X	X	X	-	X	X	X	-	-	-	-	-	S
46063*		34.25N	120.66W	X	X	X	-	X	X	X	-	-	-	-	-	N
51001*		23.40N	162.27W	X	X	X	-	X	X	X	-	-	-	-	-	N
51002*		17.19N	157.83W	X	X	X	-	X	X	X	-	-	-	-	-	N
51003*		19.17N	160.73W	X	X	S	-	X	X	X	-	-	-	-	-	N
51004*		17.44N	152.52W	X	X	X	-	X	X	X	-	-	-	-	-	N
51028		0.00N	153.88W	X	X	X	-	X	X	X	-	-	-	-	-	N

* Base funded station of National Weather Service (NWS); however, all stations report data to NWS.

Total Base Funded Buoys: 58
 Total Other Buoys 10

 Total Moored Buoys 68

Remarks (d/m/vv):

41001 - Buoy confirmed adrift 12/16/99, recovered 1/15/00, redeployment scheduled week of 3/20/00.
 42019 - Station failed 12/15/99.
 42020 - Water temp failed 8/22/99.
 42036 - Wave data failed 8/19/99.
 44004 - Buoy confirmed adrift 1/28/00, data being released with updated positions.
 44008 - Wind data failed 2/11/00.
 44011 - Buoy confirmed adrift 1/28/00, recovered 1/31/00, redeployment scheduled week of 2/27/00.
 44014 - Water temp data failed 12/13/99.
 44025 - Wave data failed 11/12/99, parity errors in dew point data, service scheduled week of 3/6/00.
 45001 - Recovered for winter season 11/9/99, redeployment scheduled week of 4/3/00.
 45002 - Recovered for winter season 11/18/99, redeployment scheduled week of 3/6/00.
 45003 - Recovered for winter season 11/30/99, redeployment scheduled week of 4/3/00.
 45004 - Recovered for winter season 11/9/99, redeployment scheduled week of 4/3/00.
 45005 - Recovered for winter season 11/30/99.

45006 - Recovered for winter season 11/10/99, redeployment scheduled week of 4/3/00.
 45007 - Recovered for winter season 12/9/99, redeployment scheduled week of 3/6/00.
 45008 - Recovered for winter season 11/8/99.
 46002 - Buoy confirmed adrift 9/24/98, recovered 12/4/98.
 46003 - Buoy confirmed adrift 8/12/99, recovered 10/28/99.
 46005 - Parity errors in data, service scheduled week of 2/27/00.
 46006 - Station failed 12/16/99.
 46011 - Buoy confirmed adrift 10/7/99, recovered 10/10/99, redeployment scheduled week of 4/3/00.
 46012 - Wind direction failed, wind speed only being released.
 46022 - Buoy confirmed adrift 1/25/00, recovered 1/27/00.
 46028 - Station failed 8/17/99, redeployment scheduled week of 4/3/00.
 46029 - Buoy confirmed adrift 1/18/00, recovered 1/20/00.
 46035 - Parity errors in data.
 46041 - Parity errors in data.
 46062 - Dew point data failed 2/15/00.
 51003 - Pressure data failed 12/21/99, service scheduled week of 3/19/00.

AUSTRALIA

Moored Buoys

WMO Buoy ID	ARGOS ID	Position: 31 January 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
55038	2946	-35.112	138.467	X	X	X	X	X	-	-	X	-	-	-	-	-

Drifting Buoys (Drogued)

WMO Buoy ID	ARGOS ID	Position: 31 January 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
52625	1955	-14.149	139.039	X	X	X	X	X	-	-	X	-	-	-	-	-
53551	8097	-18.15	57.995	-	-	X	X	X	-	-	X	-	-	-	-	-
53552	2931	-13.652	120.295	-	-	X	X	X	-	-	X	-	-	-	-	-
55525	2948	-35.732	162.473	-	X	X	X	X	-	-	X	-	-	-	-	-
56502	1495	-59.762	99.464	-	X	X	X	X	-	-	X	-	-	-	-	-
56503	1655	-40.704	110.896	-	X	X	X	X	-	-	X	-	-	-	-	-
56504	1535	-48.421	124.56	-	X	X	X	X	-	-	X	-	-	-	-	-
56505	8591	-22.649	107.393	X	-	X	X	X	-	-	X	-	-	-	-	-
56535	2939	-47.12	1.916	-	X	X	X	X	-	-	X	-	-	-	-	-
56536	4876	-37.298	-153.917	-	-	S	-	X	-	-	X	-	-	-	-	-
56541	8037	-59.589	-141.653	-	X	X	X	X	-	-	X	-	-	-	-	-
56544	8039	-16.998	38.969	X	X	X	X	X	-	-	X	-	-	-	-	-
56545	2693	-37.118	118.603	-	S	X	X	X	-	-	X	-	-	-	-	-
56546	2489	-43.962	140.184	-	X	X	X	X	-	-	X	-	-	-	-	-
56550	1870	-9.078	105.865	X	X	X	X	X	-	-	X	-	-	-	-	-

FRANCE

Moored Buoys

WMO Buoy ID	ARGOS ID	Position: 19 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
15001*	16857	10.0S	10.0W	X	X	-	-	X	-	-	-	X	-	-	-	-
15003*	19101	5.1S	10.0W	X	X	-	-	X	-	-	-	X	-	-	-	-
15005*	20973	1.7S	10.0W	X	X	-	-	X	-	-	-	X	-	-	-	-
41096	05833	16.4N	60.9W	-	-	-	-	X	X	.	-	-	-	-	-	-
41100	-	15.9N	57.9W	X	X	X	X	X	X	X	-	-	X	-	-	-
41101	-	14.6N	56.2W	X	X	X	X	X	X	X	-	-	X	-	-	-
61001	-	43.4N	7.8E	X	X	X	X	X	X	X	-	-	X	-	-	-
62001**	-	45.2N	5.0W	X	X	X	X	X	X	-	-	-	X	-	-	-
62051	-	49.5N	0.2W	X	X	-	-	X	-	-	-	-	-	-	-	-
62163**	-	47.5N	8.5W	X	X	X	X	S	X	-	-	-	X	-	-	-

* Pirata project

** Cooperation UK Met. Office/Meteo-France

Drifting Buoys

Indian and Pacific Oceans

WMO Buoy ID	ARGOS ID	Position: 19 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
14538	08338	12.5S	58.2E	X	-	X	X	X	-	-	X	-	-	-	-	-
14539	07179	9.0S	63.4E	-	-	X	X	X	-	-	X	-	-	-	-	-
23589	29754	15.7S	83.3E	-	-	X	X	X	-	-	X	-	-	-	-	-
23590	07568	0.7N	80.6E	X	-	X	X	X	-	-	X	-	-	-	-	-

Tropical Atlantic Oceans

WMO Buoy ID	ARGOS ID	Position: 13 December 1999		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
41599	8260	27.2N	37.2W	S	-	X	-	X	-	-	X	-	-	-	-	-
41637	8718	27.4N	46.2W	S	-	X	-	X	-	-	X	-	-	-	-	-

EUROPEAN GROUP ON OCEAN STATIONS

Drifting buoys: North Atlantic

France

WMO Buoy ID	ARGOS ID	Position: 18 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
44546	14538	39.500	-25.588	-	-	X	X	X	-	-	X	-	-	-	-	-
44607	6216	51.500	-33.391	X	-	X	X	X	-	-	X	-	-	-	-	-
44608	14540	38.200	-15.669	-	-	X	X	X	-	-	X	-	-	-	-	-

44610	12734	56.400	-32.733	-	-	X	X	X	-	-	X	-	-	-	-	-
62503	1362	41.100	-13.212	-	-	-	X	X	-	-	X	-	-	-	-	-
62506	12733	36.000	-24.626	X	-	-	X	X	-	-	X	-	-	-	-	-
62507	10111	40.900	-24.702	-	X	X	X	X	-	-	-	-	-	-	-	-
62508	5822	43.700	-16.965	X	X	X	X	X	-	-	-	-	-	-	-	-
62509	14537	45.700	-8.534	-	-	X	X	X	-	-	X	-	-	-	-	-
62510	12732	48.400	-10.092	X	-	-	X	X	-	-	X	-	-	-	-	-
62520	14431	31.400	-33.663	-	X	X	X	X	-	-	-	-	-	-	-	-
64517	14178	57.800	-30.781	-	-	X	X	X	-	-	X	-	-	-	-	-
64518	14180	57.900	-7.627	-	-	X	X	X	-	-	X	-	-	-	-	-
64698	29867	59.500	-49.850	-	-	X	X	X	-	-	X	-	-	-	-	-
64699	29868	63.100	-56.790	-	-	X	X	X	-	-	X	-	-	-	-	-

Germany

WMO Buoy ID	ARGOS ID	Position: 18 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
44614	3037	51.407	-7.370	-	X	X	X	X	-	-	-	-	-	-	-	-
64529	6669	73.172	29.023	-	X	X	X	X	-	-	-	-	-	-	-	-
64530	4272	62.691	-9.270	-	X	X	X	X	-	-	-	-	-	-	-	-
64547	2294	63.173	-6.640	-	X	X	X	X	-	-	-	-	-	-	-	-
65598	1298	64.252	-26.320	-	X	X	X	X	-	-	-	-	-	-	-	-

Ireland

WMO Buoy ID	ARGOS ID	Position: 18 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
65596	3038	62.000	-2.903	-	X	X	X	X	-	-	-	-	-	-	-	-

The Netherlands

WMO Buoy ID	ARGOS ID	Position: 18 February 2000		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
44723	16392	45.900	-39.018	-	-	X	X	X	-	-	X	-	-	-	-	-
62596	16391	54.800	-26.808	-	-	X	X	X	-	-	X	-	-	-	-	-
65595	4229	61.600	-3.586	-	X	X	X	X	-	-	-	-	-	-	-	-

Norway

NONE TO REPORT

ARGOS SERVICE

ARGOS monthly status report

Date of Statistics computation: 3 January 2000

Reports handled by ARGOS Service
List of monthly collected ARGOSs platforms sorted by type of platform

DRIFTING BUOY	1295
MARINE STATION	129
MOORED BUOY	312
TERRESTRIAL ANIMALS	102
MARINE ANIMALS	210
BIRDS	155
BALLOONS	10
RAFOS FLOATS	122
FIXED STATION	642
TOTAL	2997

Reports inserted into the GTS
(List of monthly collected ARGOS platforms on indicated GTS sites sorted by type of platform)

INSERTED BY RTH TOULOUSE

DRIFTING BUOY	130
FIXED STATION	19
MOORED BUOYS	15

INSERTED BY RTH/WMC WASHINGTON

DRIFTING BUOY	663
FIXED STATIONS	31
GPS MOBILE	-
MOORED BUOY	67

CODING STATISTICS OF PLATFORMS

Reporting through ARGOS and distributed over the GTS

BATHY	517
BUOY	296909
SHIP	2649
SIMPLE	3368
STD	-
SYNOP	33370
TOTAL	336813

Date of Statistics computation: 1 February 2000

Reports handled by ARGOS Service
List of monthly collected ARGOSs platforms sorted by type of platform

DRIFTING BUOY	1229
MARINE STATION	134
MOORED BUOY	303
TERRESTRIAL ANIMALS	92
MARINE ANIMALS	212
BIRDS	156
BALLOONS	11
RAFOS FLOATS	141
FIXED STATION	644
TOTAL	2922

Reports inserted into the GTS
(List of monthly collected ARGOS platforms on indicated GTS sites sorted by type of platform)

INSERTED BY RTH TOULOUSE

DRIFTING BUOY	111
FIXED STATION	21
MOORED BUOYS	15

INSERTED BY RTH/WMC WASHINGTON

DRIFTING BUOY	681
FIXED STATIONS	30
GPS MOBILE	-
MOORED BUOY	67

CODING STATISTICS OF PLATFORMS

Reporting through ARGOS and distributed over the GTS

BATHY	562
BUOY	303318
SHIP	3087
SIMPLE	3072
STD	219
SYNOP	33982
TOTAL	344240

2. INFORMATION ON THE OPERATIONAL STATUS OF THE SPACE-BASED SUB-SYSTEM

METEOROLOGICAL SATELLITES

CO-ORDINATION GROUP FOR METEOROLOGICAL SATELLITES (CGMS)

The following tables indicate the status of current geostationary and polar-orbiting satellites and the future plans for geostationary and polar-orbiting satellites. All the information contained in the tables was presented by the satellite operators (China, EUMETSAT, India, Japan, Russian Federation and USA) at the Twenty-seventh session of the Coordination Group for Meteorological Satellites (CGMS) held in Beijing, China, 13-18 October 1999. More detailed information including updated data for the tables below can be found at the WMO Satellite Activities home page: <http://www.wmo.ch/hinsman/GOSstatus.html>

CURRENT GEOSTATIONARY SATELLITES COORDINATED WITHIN CGMS (as of October 1999)

Sector	Satellites currently in orbit (+type) P: Pre-operational Op: Operational B: Back-up L: Limited availability	Operator	Location	Launch date	Status
EAST-PACIFIC (180°W-108°W)	GOES-10 (Op)	USA/NOAA	135°W	04/97	Inverted, solar array anomaly, DCP interrogator on back-up
WEST-ATLANTIC (108°W-36°W)	GOES-8 (Op)	USA/NOAA	75°W	04/94	Minor sounder anomalies, loss of redundancies on some sub-systems
	GOES-9 (L)	USA/NOAA	105°W	05/98	In stand-by, lubricant starvation condition of momentum wheels
EAST-ATLANTIC (36°W-36°E)	METEOSAT-6 (B)	EUMETSAT	0°	11/93	Minor gain anomaly on IR imager
	METEOSAT-7 (Op)	EUMETSAT	0°	02/97	Functional
INDIAN OCEAN (36°E-108°E)	METEOSAT-5 (Op)	EUMETSAT	63°E	03/91	INDOEX Experiment until 12/1999, function. But inclination
	GOMS-N1 (B)	RUSSIA	76°E	11/94	Since 9/98 in stand-by
	FY-2A (L)	CHINA	105°E	06/97	Experimental Satellite
	INSAT II-B (L)	INDIA	93.5°E	07/93	Cloud imagery for domestic use. But wind products available on WMO GTS
	INSAT II-A (B)	INDIA	74°E		
	INSAT II-E (Op)	INDIA	83°E	04/99	
INSAT I-D (Op)	INDIA	74°E	06/90		
WEST-PACIFIC (108°E- 180°E)	GMS-5 (Op)	JAPAN	140° E	03/95	Operational
	GMS-4 (B)	JAPAN	120°E	09/89	In stand-by

CURRENT POLAR-ORBITING SATELLITES COORDINATED WITHIN CGMS

(as of October 1999)

Orbit type (equatorial crossing times)	Satellites in orbit (+operation mode) P=Pre-operational Op=Operational B=Back-up L=Limited availability	Operator	Crossing Time A=Northwest D=Southwest +Altitude	Launch date	Status
Sun-Synchronous "Morning" (06:00 – 12:00) (18:00 – 24:00)	NOAA-15 (Op)	USA/NOAA	7:30 (D)	05/98	Functional
	NOAA-12 (L)	USA/NOAA	06:40 (D) 850 km	05/91	Functional (except sounding)
	NOAA-10 (L)	USA/NOAA	10:00 (D) 840 km	12/86	Search and Rescue only
	DMSP-F14 (Op)	USA/NOAA	20:42 (A) 852 km	04/97	Defense satellite.Data available to civilian users through NOAA.
	DMSP-F12 (B)	USA/NOAA	21:13 (A)	08/94	Defense satellite.Data available to civilian users through NOAA.
	RESURS-01-4 (P)	Russia	09:30 (A) 835 km	07/98	Partly meteorological mission (APT broadcast of TV images)
Sun-Synchronous "Afternoon" (12:00 – 16:00) (00:00 – 04:00)	NOAA-14 (Op)	USA/NOAA	14:00(A) 850 km	12/94	Functional, one OBP is unusable
	NOAA-11 (L)	USA/NOAA	14:00 (D)	09/88	Sounding only
Sun-Synchronous "Early morning" (04:00 – 06:00) (16:00 – 18:00)	DMSP-F13 (Op)	USA/NOAA	17:40 (A) 850 km	03/97	Defense satellite.Data available to civilian users through NOAA.
	DMSP-F11 (B)	USA/NOAA	19:32 (A) 850 km	11/91	Defense satellite. Data available to civilian users through NOAA.
Sun-Synchronous "morning"	FY-1C (Op)	China	08:40 (A) 860 km	05/99	Functional
Non sun-Synchronous or unspecified orbits	METEOR 2-21 (Op)	Russia	950 km	08/93	Functional, except IR scanning instrument (APT only)
	METEOR 3-5 (Op)	Russia	1200 km	08/91	Functional, except IR scanning instrument (APT only)

FUTURE GEOSTATIONARY SATELLITES COORDINATED WITHIN CGMS

(as of October 1999)

Sector	Future additional satellites	Operator	Planned launch	(Planned location) Other remarks
EAST-PACIFIC (180°W-108°W)	GOES-L	USA/NOAA	4/2000	135° W and 75° W
	GOES-M	USA/NOAA	2001	
	GOES-N	USA/NOAA	2002	
	GOES-O	USA/NOAA	2005	
WEST-ATLANTIC (108°W-36°W)	GOES-P	USA/NOAA	2007	
	GOES-Q	USA/NOAA	2010	
EAST-ATLANTIC (36°W-36°E)	MSG-1	EUMETSAT	10/2000	0°
	MSG-2	EUMETSAT	04/2002	0°
	MSG-3	EUMETSAT	2006	0°
INDIAN OCEAN (36°E-108°E)	GOMS-N2	RUSSIA	2001	76° E
	INSAT III-A	INDIA	End 1999	
	INSAT III-D	INDIA	2002	
	FY-2B	CHINA	2000	105° E
WEST-PACIFIC (108°E- 180°E)	MTSAT-1R	JAPAN	2002	Multi-functional Transport Satellite 140°E
	MTSAT-2	JAPAN	2004	

FUTURE POLAR-ORBITING SATELLITES COORDINATED WITHIN CGMS

(as of October 1999)

Orbit type (equatorial crossing times)	Future Additional Satellites	Operator	Planned launch date	Other information
Sun-Synchronous "Morning" (06:00 – 12:00) (18:00 – 24:00)	METOP-1	EUMETSAT	06/2003	(827 km) (9:30)
	METOP-2	EUMETSAT	12/2007	(827 km) (9:30)
	METOP-3	EUMETSAT	06/2012	(827 km) (9:30)
	METEOR 3M-1	Russia	6/2000	(9:15)
	METEOR 3M-2	Russia	8/2002	(10:30) or (16:30)
Sun-Synchronous "Afternoon" (12:00 – 16:00) (00:00 – 04:00)	NOAA-L	USA/NOAA	04/2000	(13:30)
	NOAA-M	USA/NOAA	05/2001	(13:30)
	NOAA-N	USA/NOAA	12/2003	(13:30)
	NOAA-N'	USA/NOAA	01/2008	(13:30)
	NPOESS-1	USA/NOAA	2009	(13:30)
	NPOESS-3	USA/NOAA	2013	(13:30)
Sun-Synchronous "Early morning" (04:00 – 06:00) (16:00 – 18:00)	DMSP-S15	USA/NOAA	12/1999	
	DMSP-S16	USA/NOAA	2001	
	DMSP-S17	USA/NOAA	2002	
	DMSP-S18	USA/NOAA	2003	
	DMSP-S19	USA/NOAA	2005	
	DMSP-S20	USA/NOAA	2007	
	NPOESS-2	USA/NOAA	2010	
	NPOESS-4	USA/NOAA	2016	
Sun-Synchronous	FY-1 D	China	2001	

3. Feed-back from Members to the Secretariat on any Changes in the Observing Network

In view of the difficulties experienced in identifying non-implemented observing stations, implemented stations which are closed or suspended for a certain period, or stations making observations that do not reach their NMCs, a special table accompanied by explanatory notes is included in this Newsletter. The table will serve as feed-back from Members to the Secretariat on any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations.

Members are urged to fill in the table attached as and when appropriate, and to return it to the Secretariat before the 20th of every other month, i.e. February, April, June, August, October, December, to enable changes to be included in the next "Newsletter".

6. Explanatory Notes

Separate tables should be prepared for global exchange and regional exchange respectively. These tables should contain information concerning any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations for Volume A and the Catalogue of Meteorological Bulletins.

For entries in these tables, the following should be taken into account:

Column A:

The station index number (Iiii) and station name;

Column B:

Latitude and Longitude in degrees and minutes with the appropriate letters (N, S, E and W);

Column C:

The TTAAii CCCC of the abbreviated headings of the meteorological bulletins which contain reports from the station should be inserted;

Column D:

“X” for implementation and “-” for non-implementation should be inserted as appropriate. In order to easily identify changes in the programme, these should be marked in red;

Column E:

HP = Elevation of the station in metres (the datum level to which barometric pressure reports at the station refer);

H = Elevation of the ground, in metres, (average level of terrain in immediate vicinity of station), for stations not located on aerodromes;

HA= Official altitude of the aerodrome given for stations located on aerodromes is indicated by the letter “A” in the column “Other observations and Remarks” of Volume A;

Column F:

For those stations not indicating pressure reduced to mean sea level (group 4PPPP) in their synoptic reports, the entry in this column shows which information is reported in lieu of group 4PPPP:

Station	Pressure at station level reported using group 3P _o P _o P _o P _o
1000 hPa	Geopotential of the given standard isobaric surface reported using group 4a3hhh
850 hPa	
700 hPa	
500 hPa	

Column G:

Reasons for temporary suspension of observing programmes and an expected date of resumption of the programmes should be given as far as possible. Non-standard collection and/or distribution times should also be included, and also possible alternate observing stations, as appropriate.

These tables should be sent to:

World Meteorological Organization
 Public Weather and Operational
 Information Unit
 7 bis, Avenue de la Paix
 Case postale No. 2300
 CH-1211 GENEVA 2
 Switzerland

BEFORE the 15th of the month

for inclusion in the
 “OPERATIONAL NEWSLETTER”

Feed-Back from Members to the Secretariat on any Changes in the Observing Network

Country: _____

Date effective: _____

Type of Exchange G=Global R=Regional	Type of station S=SYNOP T=TEMP P=PILOT	(A)		(B)		(C)		(D)							(E)		(F)	(G)
		Index No.	Station Name	Position		Bulletin Identification		Implementation of Observing Programme							Elevation		Pressure Level	Remarks
				Latitude	Longitude	TTAAii CCCC		00	03	06	09	12	15	18	21	HP			H/HA

II. CODES

1. WMO No. 306 - MANUAL ON CODES

Global practices

1.3 Changes to codes

1.3.1 The President of the Commission for Basic Systems and then the President of WMO have approved the following Recommendation 8 (CBS-99). It is important to note that the amendments to Tables of Binary Representations FM 94-XI Ext. BUFR, FM 95-XI Ext. CREX and to Common Code Tables given in Annex to the recommendation are for use as from 3 May 2000. The Recommendation 8 (CBS-99) is listed below.

1.3.2 It is also reminded that the code changes approved by EC LI in Resolution 8 and found in Recommendations 5 and 6 (CBS-Ext.(98)) (see CBS-Ext.(98) abridged final report (publication WMO no 893)), affecting binary codes, as well as alphanumeric codes (FM 12 SYNOP, FM 13 SHIP, FM 14 SYNOP MOBIL, FM 32 PILOT, FM 33 PILOT SHIP; FM 34 PILOT MOBIL, FM 35 TEMP, FM 36 TEMP SHIP; FM 37 TEMP DROP, FM 38 TEMP MOBIL, FM 42 AMDAR, FM 63 BATHY, FM 64 TESAC and FM 65 WAVEOB) and defining the new FM 95 CREX, are for use also as from 3 May 2000.

1.3.3 The President of the Commission for Basic Systems has also approved the following additional entries to Common Code Tables:

- Approved in March 99: In Common Table C-2 Radiosonde/sounding system used

Code figure	
53	- AVK-RF95 (Russian Federation)
75	- AVK-MRZ-ARMA (Russian Federation)
76	- AVK-RF95-ARMA (Russian Federation)

- Approved in January 2000: In Common Table C-2 Radiosonde/sounding system used

Code	Meaning
77	GEOLINK GPSonde GL98 (France)

- Approved in January 2000: In Common Code Table C-3 Instrument type for water temperature profile measurement

Code	Meaning
840	PROVOR, no conductivity sensor
841	PROVOR, Seabird conductivity sensor
842	PROVOR, FSI conductivity sensor
845	Web Research, no conductivity sensor
846	Web Research, Seabird conductivity sensor
847	Web Research, FSI conductivity sensor
850	SOLO, no conductivity sensor
851	SOLO, Seabird conductivity sensor
852	SOLO, FSI conductivity sensor

- Approved in January 2000: In Common Code Table C-4 Water temperature profile recorder types

Code	Meaning
46	TSK MK-130 Compatible recorder for both XBT and XCTD
60	ARGOS communications, sampling on up transit
61	ARGOS communications, sampling on down transit
62	Orbcomm communications, sampling on up transit
63	Orbcomm communications, sampling on down transit

RECOMMENDATION 8 (CBS-99)

Rec. 8 (CBS-99) AMENDMENTS TO TABLES OF BINARY DATA REPRESENTATIONS FM 94-XI BUFR and COMMON CODE TABLES

THE COMMISSION FOR BASIC SYSTEMS,

NOTING:

- (1) Resolution 5 (CBS-XI) - Working Group on Data Management,
- (2) The abridged final report of CBS-X, general summary, paragraph 6.4.52,
- (3) The abridged final report of CBS-XI, general summary, paragraph 6.4.34,

CONSIDERING that there is an urgent need to introduce modifications to the BUFR tables and to Common Code Tables to meet new requirements to:

- Coding buoy data as requested by the Drifting Buoy Cooperation Panel;
- Adding two entries as requested by IOC and one as requested by Japan in the table giving the Method of current measurement;
- Adding entries for Satellite Numbers in Common Table C-5;
- Enable the coding of 10 characters storm names and the addition of RSMC Fiji zone in the South Pacific (Changes requested by the Tropical Cyclone Programme);
- Adding entries to encode in BUFR data of NASA's QuikScat ocean-viewing satellite;
- Adding entries for EUMETSAT's new radiance products and future METEOSAT Second Generation radiance products;
- Slightly updating the definition of two entries in BUFR Code Table 0 02 023 (satellite derived wind computation method) to eliminate ambiguities at the request of EUMETSAT,
- New entries for exchange of radiological soundings in CREX at the request of the Czech Republic;

RECOMMENDS that amendments to Tables of Binary Representations FM 94-XI BUFR and to Common Code Tables C-3, C-4 and C-5 given in annex to this recommendation be adopted for use as from 3 May 2000;

INVITES the President of WMO to approve this recommendation as a matter of urgency, on behalf of the Executive Council;

REQUESTS the Secretary-General to arrange for the inclusion of these amendments in Volume I.2 of the Manual on Codes.

ANNEX TO RECOMMENDATION 8 (CBS-99)

AMENDMENTS TO THE WMO MANUAL ON CODES, VOLUME I.2, PART B, BINARY CODES IN FM 94-XI Ext. BUFR AND IN PART C, ALPHANUMERIC TABLE DRIVEN CODE FM 95-XI Ext. CREX AND COMMON CODE TABLES

1. ADDITIONS TO BUFR REQUESTED BY DBCP:

Proposed new descriptors and associated tables:

- **0 25 086 Depth correction indicator.** Indication whether probe depths as reported in Section 3 are corrected using hydrostatic pressure or not.

<i>Table B reference</i>	<i>Unit</i>	<i>Scale</i>	<i>Reference value</i>	<i>Data width (bits)</i>
0 25 086	Code table	0	0	2
CREX: B25086	Code table	0		1

Associated code table:

<i>Code figure</i>	<i>Depth correction indicator</i>
0	Depths are not corrected
1	Depth are corrected
2	Reserved
3	Missing value

- **0 02 168 Hydrostatic pressure of lower end of cable (thermistor string).** Pressure is expressed in units of 1000 Pa (i.e. centibars). This indicator must be followed by 0 02 035 (Cable length) indicator.

	<i>Table B reference</i>	<i>Unit</i>	<i>Scale</i>	<i>Reference value</i>	<i>Data width (bits)</i>
	0 02 168	Pa	-3	0	16
CREX:	B 02 168	KPa	0	0	5

- **0 07 064 Height above station at which sensor height is artificially corrected to standard value using formula.** For example standard height for wind is 10 meters but anemometers on buoys are placed at much lower height; such height is sometimes corrected using formula).

	<i>Table B reference</i>	<i>Unit</i>	<i>Scale</i>	<i>Reference value</i>	<i>Data width (bits)</i>
	0 07 064	m	0	0	4
CREX:	B 07 064	m	0	0	2

- **0 02 169 Anemometer type**

BUFR:	0 02 169	Anemometer type	Code table	0	0	4
CREX:				0		2

<i>Code figure</i>	<i>Anemometer type</i>
0	Cup rotor
1	Propeller rotor
2	Wind Observation Through Ambient Noise (WOTAN)
3-14	Reserved
15	Missing value

Rename descriptor 0-02-148 "Location System" to "Data collection and/or location system".

- **0-02-148 Data collection and/or location system**

New entries proposed in associated code table

<i>Code figure</i>	<i>Data collection and/or location system</i>
3	GOES DCP
4	METEOSAT DCP
5-30	Reserved

2. ADD IN COMMON CODE TABLE C-3 (CODE TABLE 1770):

510	Sparton 536 AXBT	a= 1.524, b= 0
-----	------------------	----------------

3. ADD IN COMMON CODE TABLE C-4 (CODE TABLE 4770):

11 Lockheed-Sanders Model OL5005

4. ADD TO TABLE 0 02 030 (BUFR) AND IN TABLE 2266 (VOLUME I.1) THE FOLLOWING ENTRY:

Code	Meaning
1	ADCP (Acoustic Doppler Current Profiler)

5. CHANGE AND ADD SATELLITE NUMBERS IN COMMON CODE TABLE C-5:

Change the following entries:

220	220	LANDSAT 5
221	221	LANDSAT 4
222	222	LANDSAT 7 (<i>no change</i>)

Add:

059 METEOSAT 2
 120 ADEOS....
 281 QUIKSCAT

6. REQUIREMENT FOR NEW WMO STORM NAME (10 CHARACTERS) AND OCEAN BASIN LETTER (Requested by the Tropical Cyclone Programme):

New descriptors in BUFR and CREX:

BUFR: 0 01 027	WMO long storm name	CCITT IA5	0	0	80
CREX: B 01 027	WMO long storm name	CCITT IA5	0		10

BUFR:

Add note to 0 01 026: Descriptor 0 01 027 should be used instead of 0 01 026 to encode this element
 And in Note 2 of table for Class 1, change 0 01 026 to 0 01 027

CREX:

Add note to B 01 026: Descriptor B 01 027 should be used instead of B 01 026 to encode this element
 And in Note 2 of table for Class 1, change B 01 026 to B 01 027

In Note 1 of table for Class 1 in BUFR and CREX, add in the list the letter F:

F RSMC Nadi's zone in South Pacific

7. ADDITIONS FOR QUIKSCAT DATA:

The QuikScat data should be represented with one Table D entry: 312026

These are the sequences needed for BUFR Table D:

		(Quikscat data)
312026	301046	
	301011	Date
	301013	Time
	301023	Location
	312031	
	101004	Replicate 1 descriptor 4 times
	312030	
	021110	Number of inner-beam sigma-0 (forward of satellite)
	301023	Location
	321027	
	021111	Number of outer-beam sigma-0 (forward of satellite)
	301023	Location
	321027	
	021112	Number of inner-beam sigma-0 (aft of satellite)
	301023	Location
	321027	
	021113	Number of outer-beam sigma-0 (aft of satellite)
	301023	Location
	321027	
312030	201130	Change data width
	202129	Change scale
	011012	Wind speed at 10 m
	202000	Change scale back to Table B
	201000	Change data width to Table B
	011052	Formal uncertainty in wind speed
	201135	Change data width
	202130	Change scale
	011011	Wind direction at 10 m
	202000	Change scale back to Table B
	201000	Change data width to Table B
	011053	Formal uncertainty in wind direction
	021104	Likelihood computed for solution

312031	005034	Along track row number
	006034	Cross track cell number
	021109	Seawinds wind vector cell quality
	011081	Model wind direction at 10 m
	011082	Model wind speed at 10 m
	021101	Number of vector ambiguities
	021102	Index of selected wind vector
	021103	Total number of sigma-0 measurements
321027	021118	Attenuation correction on sigma-0
	202129	Change scale
	201132	Change data width
	002112	Radar look angle
	201000	Change data width to Table B
	201131	Change data width
	002111	Radar incidence angle
	201000	Change data width to Table B
	202000	Change scale back to Table B
	002104	Antenna polarisation
	021105	Normalized radar cross section

	021106	Kp variance coefficient (alpha)
	021107	Kp variance coefficient (beta)
	021114	Kp variance coefficient (gamma)
	021115	SEAWINDS sigma-0 quality
	021116	SEAWINDS sigma-0 mode
	008018	SEAWINDS land/ice surface type
	021117	Sigma-0 variance quality control

Table B new entries

005034	Along track row number	Numeric	0	0	11
006034	Cross track cell number	Numeric	0	0	7
008018	SEAWINDS land/ice surface type	Flag table	0	0	17
011052	Formal uncertainty in wind speed	ms ⁻¹	2	0	14
011053	Formal uncertainty in wind direction	Degree true	2	0	15
011081	Model wind direction at 10 m	Degree true	2	0	16
011082	Model wind speed at 10 m	ms ⁻¹	2	0	13
021101	Number of vector ambiguities	Numeric	0	0	3
021102	Index of selected wind vector	Numeric	0	0	3
021103	Total number of sigma-0 measurements	Numeric	0	0	5
021104	Likelihood computed for solution	Numeric	3	-30000	15
021105	Normalized radar cross section	dB	2	-10000	14
021106	Kp variance coefficient (alpha)	Numeric	3	0	14
021107	Kp variance coefficient (beta)	Numeric	8	0	16
021109	SEAWINDS wind vector cell quality	Flag table	0	0	17
021110	Number of inner-beam sigma-0 (forward of satellite)	Numeric	0	0	6
021111	Number of outer-beam sigma-0 (forward of satellite)	Numeric	0	0	6
021112	Number of inner-beam sigma-0 (aft of satellite)	Numeric	0	0	6
021113	Number of outer-beam sigma-0 (aft of satellite)	Numeric	0	0	6
021114	Kp variance coefficient (gamma)	dB	3	-140000	18
021115	SEAWINDS sigma-0 quality	Flag table	0	0	17
021116	SEAWINDS sigma-0 mode	Flag table	0	0	17
021117	Sigma-0 variance quality control	Numeric	2	0	16
021118	Attenuation correction on sigma-0	dB	2	-10000	14
021119	Wind scatterometer geophysical model function	Code table	0	0	6

New entries in existing Code Table 002048: Satellite sensor indicator

Add two new entries:

Code figure	Meaning
7	NSCAT
8	SEAWINDS

Flag Table 008018

<i>Bit number</i>	<i>Meaning</i>
1	Land is present
2	Surface ice map indicates ice is present
3-10	Reserved
11	Ice map data not available
12	Attenuation map data not available
13-16	Reserved
All 17	Missing value

Flag Table 021109

<i>Bit number</i>	<i>Meaning</i>
1	Not enough good sigma-0 available for wind retrieval
2	Poor azimuth diversity among sigma0- for wind retrieval
3-7	Reserved
8	Some portion of wind vector cell is over land
9	Some portion of wind vector cell is over ice
10	Wind retrieval not performed for wind vector cell
11	Reported wind speed is greater than 30 m/s
12	Reported wind speed is less than or equal to 3 m/s
13-16	Reserved
All 17	Missing value

Flag Table 021115

<i>Bit number</i>	<i>Meaning</i>
1	Sigma-0 measurement is not usable
2	Signal to noise ratio is low
3	Sigma-0 is negative
4	Sigma-0 is outside of acceptable range
5	Scatterometer pulse quality is not acceptable
6	Sigma-0 cell location algorithm does not converge
7	Frequency shift lies beyond the range of the x factor table
8	Spacecraft temperature is beyond calibration coefficient range
9	No applicable attitude records were found for this sigma-0
10	Interpolated iphemeoris data are not acceptable for this sigma-0
11-16	Reserved
All 17	Missing value

Flag Table 021116

<i>Bit number</i>	<i>Meaning</i>
1	Calibration/measurement pulse flag (1)
2	Calibration/measurement pulse flag (2)
3	Outer antenna beam
4	Sigma-0 cell is aft of spacecraft
5	Current mode (1)
6	Current mode (2)
7	Effective gate width - slice resolution (1)
8	Effective gate width - slice resolution (2)
9	Effective gate width - slice resolution (3)
10	Low resolution mode - whole pulse data
11	Scatterometer electronic subsystem b
12	Alternate spin rate - 19.8 rpm
13	Receiver protection on
14	Slices per composite flag(1)
15	Slices per composite flag(2)
16	Slices per composite flag(3)
All 17	Missing value

Code Table 021119

Code figure	Meaning
0	Reserved
1	SASS
2	SASS2
3	NSCAT0
4	NSCAT1
5	NSCAT2
6	QSCAT0
7	QSCAT1
8 -30	Reserved
31	CMOD1
32	CMOD2
33	CMOD3
34	CMOD4
35	CMOD5
36-62	Reserved
63	Missing value

8. SEQUENCES NEEDED FOR GEOSTATIONARY SATELLITE RADIANCE DATA IN BUFR TABLE D:

(Meteosat radiance data)		
310015	301072	Satellite identification
	007024	Satellite zenith angle
	010002	Height
	303041	Wind sequence
	101003	Replicate next descriptor 3 times
	304032	Cloud fraction
	002152	Satellite instrument used in data processing
	002024	Integrated mean humidity computational method
	007004	Pressure
	007004	Pressure
	013003	Relative humidity
	101003	Replicate next descriptor 3 times
	304033	Clear sky radiance

(Meteosat Second Generation (MSG) radiance data)		
310016	301072	Satellite identification
	007024	Satellite zenith angle
	010002	Height
	303041	Wind sequence
	101012	Replicate next descriptor 12 times
	304032	Cloud fraction
	002152	Satellite instrument used in data processing
	002024	Integrated mean humidity computational method
	007004	Pressure
	007004	Pressure
	013003	Relative humidity
	101012	Replicate next descriptor 12 times
	304033	Clear sky radiance

(Cloud fraction)		
304032	002153	Satellite channel centre frequency
	002154	Satellite channel band width
	020081	Cloud amount in segment
	020082	Amount segment cloud free
	020012	Cloud type

		(Clear sky radiance)
304033	002152	Satellite instrument used in data processing
	002166	Radiance type
	002167	Radiance computational method
	002153	Satellite channel centre frequency
	002154	Satellite channel band width
	012075	Spectral radiance
	012076	Radiance
	012063	Brightness temperature

Table B new entries required

012075 Spectral radiance $Wm^{-3}sr^{-1}$ -3 0 16
 012076 Radiance $Wm^{-2}sr^{-1}$ 3 0 16

Add note to descriptor: 0 12 072: Descriptor 0 12 076 should be used instead of descriptor 0 12 072 to encode Radiance.

9. MODIFY ENTRIES MEANING IN CODE TABLE FOR SATELLITE DERIVED WIND COMPUTATION METHOD

Code table 0 02 023 - satellite derived wind computation method

Add entry 0 Reserved

Modify entries 3 and 7 as:

- 3 Wind derived from cloud motion observed in the water vapour channel
- 7 Wind derived from motion observed in the water vapour channel (cloud or clear air not specified)

10. ADDITION FOR RADIOLOGICAL SOUNDINGS:

Proposal for new descriptors in CREX (and BUFR)

The following new descriptors are proposed:

		Unit	Scale	Ref. value	Data width
008008	Radiation vertical sounding significance	Flag table	0	0	9
B08008	Radiation vertical sounding significance	Flag table	0		3

bit 1	= Surface
bit 2	= Standard level
bit 3	= Tropopause level
bit 4	= Level of beta radiation maximum
bit 5	= Level of gamma radiation maximum
bit 6	= Minimum pressure level
bit 7	= Reserved
bit 8	= level of undetermined significance
all 9	= Missing value

		Unit	Scale	Ref. value	Data width
007009	Geopotential height	gpm	0	0	17
B07009	Geopotential height	gpm	0		5
010009	Geopotential height	gpm	0	0	17
B10009	Geopotential height	gpm	0		5

		Unit	Scale	Ref. value	Data width
024023	Pulse rate of beta radiation	s ⁻¹	1	0	14
B24023	Pulse rate of beta radiation	s ⁻¹	1		4

024024	Pulse rate of gamma radiation	s ⁻¹	1	0	14
B24024	Pulse rate of gamma radiation	s ⁻¹	1		4

D01022 should also be replaced by D01024 in the descriptors D01075, D07041, D07042, D07043 and D07044 (descriptors for ozone measurements).

The descriptor D01075 called "Ozone sounding identification", suitable for the identification of any vertical sounding, e.g. also for radiological sounding or for sounding data of high vertical resolution, is to be renamed "Sounding identification" for a more general usage.

III. GLOBAL TELECOMMUNICATION SYSTEM

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2. ADDITIONAL DATA AND PRODUCTS RELATED TO RESOLUTION 40 (Cg-XII)

Country: TUNISIA
National Centre: Institut National de Météorologie
Compiling Centre: TUNIS

Date of Notification: 29 January 2000
Date of Implementation: 29 January 2000

ABBREVIATED HEADING						Code Form Used	Time Group (GG)	Content of Bulletin and Remarks	
T1	T2	A1	A2	(ii)	CCCC				
ADDITIONAL DATA									
S	I	T	S	20	DTTA	FM 12-XI	SYNOP	09, 15	60715, 60725, 60735, 60760, 60765, 60769, 60775
S	I	T	S	21	DTTA	FM 12-XI	SYNOP	09, 15	60710, 60714, 60720, 60723, 60728, 60729, 60732, 60734, 60738, 60739, 60740, 60745, 60748, 60750, 60764, 60770, 60772, 60780
S	I	T	S	20	DTTA	FM 12-XI	SYNOP	03, 21	60715, 60735, 60760, 60765, 60769
S	I	T	S	21	DTTA	FM 12-XI	SYNOP	03, 21	60710, 60714, 60720, 60738, 60740, 60745, 60750