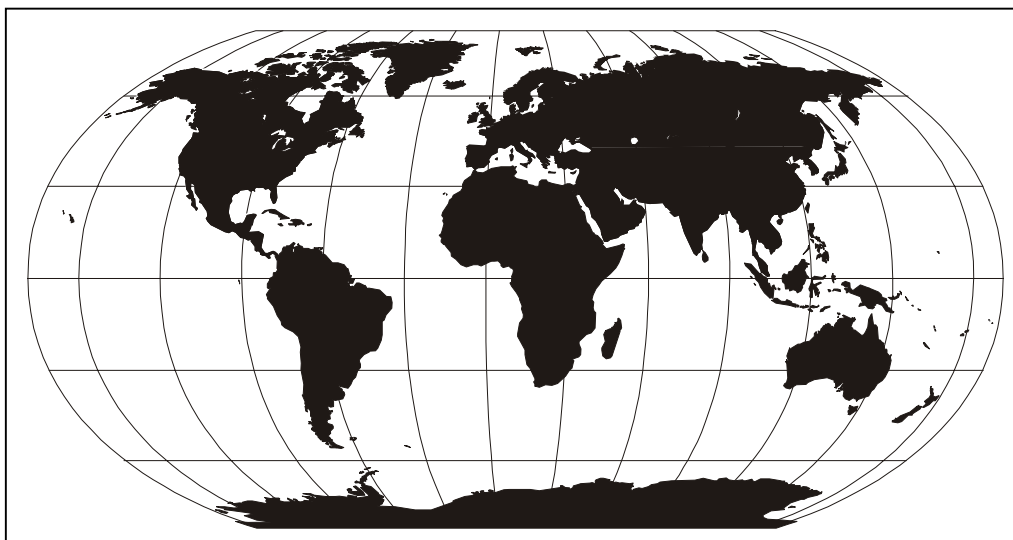




OPERATIONAL NEWSLETTER

World Weather Watch and Marine Meteorological Services



**WORLD METEOROLOGICAL ORGANIZATION
GENEVA
SWITZERLAND**

No. 11/12 - 1999
(November/December 1999)

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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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<ftp://www.wmo.ch/wmo-ddbs/OperationalInfo/Newsletters/>

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1999 MEETINGS

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

Meetings Scheduled in 2000

Date	Place	Title of the Meeting
15-18 February 2000	Washington DC	CBS Expert Team meeting on Internet Practices
6-8 March 2000	Toulouse	COSNA Workshop
6-10 March 2000 (tentative)	Geneva	CBS/CT on Information Exchange Management
9-11 March 2000 (tentative)	Toulouse, France	CBS Expert Team on Impact of changes of GOS on GDPS
27-31 March 2000	Geneva	CBS/ICT/IOS
10-14 April 2000	S. Domingo	RA IV WG/WWW
13-18 April 2000	S. Domingo	RA IV Hurricane Committee
First half of 2000 (Date to be decided)	Oman (tentative)	WMO/ESCAP Panel on Tropical Cyclones - 27 th Session
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: 1 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
46004	7195	50 59' N	135 48' W	X	X	X	X	X	X	X	N/A	-	-	-
46036	5324	48 21' N	133 56' W	X	S	X	X	X	X	X	N/A	-	-	-
46131	N/A	49 54' N	124 59' W	X	X	X	X	X	X	X	N/A	-	-	-
46132	7196	49 44' N	127 56' W	X	X	X	X	X	X	X	N/A	-	-	-
46145	7183	54 23' N	132 25' W	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	N/A	-	-	-
46147	7184	51 50' N	131 14' W	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	N/A	-	-	-
46183	7186	53 37' N	131 07' W	X	X	X	X	X	X	X	N/A	-	-	-
46184	7180	53 56' N	138 53' W	X	X	X	X	X	X	X	N/A	-	-	-
46185	7194	52 25' N	129 47' W	X	X	X	X	X	X	X	N/A	-	-	-
46204	4484	51 22' N	128 45' W	X	X	X	X	X	X	X	N/A	-	-	-
46205	7185	54 10' N	134 17' W	X	X	X	X	X	X	X	N/A	-	-	-
46206	7187	48 50' N	126 00' W	X	X	X	X	X	X	X	N/A	-	-	-
46207	4485	50 53' N	129 55' W	X	X	X	X	X	X	X	N/A	-	-	-
46208	7197	52 31' N	132 42' W	X	X	X	X	X	X	X	N/A	-	-	-

Moored Buoys
North-west Atlantic Ocean

WMO Buoy ID	ARGOS ID	Position: 1 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
44137	5579	41 50' N	060 56' W	S	S	S	S	S	S	S	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	X	S	X	X	X	S	S	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	S	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: 1 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
45132	N/A	42 28' N	081 13' W	X	X	X	X	X	X	X	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	S	S	S	S	S	S	S	N/A	-	-	-
45137	N/A	45 33' N	081 01' W	S	S	S	S	S	S	S	N/A	-	-	-
45138	3436	49 33' N	065 46' W	X	X	X	X	X	X	X	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 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
46661		38 00' N	129 30' W	X	S	X	X	X	.	.	X	-	-	-
46692	12513	28 24' N	135 30' W	S	X	X	X	X	.	.	X	-	-	-
46698	12515	29 42' N	115 00' W	X	S	X	X	X	.	.	X	-	-	-
46701	12510	46 18' N	167 18' W	X	X	X	X	X	.	.	X	-	-	-

Remarks:

44138 - Buoy transmitting weather messages using Argos.
 44139 - Re-deployed June 24/99. Air temp intmt July 22, failed July 29/99. Wave sensor failed Nov 15/99.
 44140 - Redeployed Oct 5/99.
 44141 - Re-deployed June 29/99. Air temp failed Nov 10/99.
 45132 - Xmitr/ant problems.
 45135 - Serviced July 26/99.
 45138 - Serviced June 23/99.
 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.
 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
 46701 - Drifter deployed Nov 18/99.

Failed:

44137 - Failed due to low battery voltage Nov 6/99.
 45136 - Stopped xmitting Oct 21/99
 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 9 ecrement 1999. 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	ARGOS	Position: 2-9 December 1999		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
41001*		34.68N	72.64W	X	X	X	-	X	X	X	-	-	-	-	-	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	X	X	X	-	X	X	X	-	-	-	-	-	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		30.00N	30.00W	X	X	X	-	X	X	X	-	-	-	-	-	X
42053		29.55N	88.50W	R	R	R	-	R	R	R	-	-	-	-	-	R
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	X	X	X	-	X	X	X	-	-	-	-	-	X
44009*		38.46N	74.70W	X	X	X	-	X	X	X	-	-	-	-	-	N
44011*		41.08N	66.58W	X	X	X	-	X	X	X	-	-	-	-	-	N
44013		42.35N	70.69W	X	X	X	-	X	X	X	-	-	-	-	-	X
44014*		36.58N	74.83W	X	X	X	-	X	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	X	X	X	-	X	X	X	-	-	-	-	-	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*		59.60N	140.87W	R	R	R	-	R	R	R	-	-	-	-	-	N
46005*		46.06N	131.02W	X	X	X	-	X	X	X	-	-	-	-	-	N
46006*		40.84N	137.49W	X	X	X	-	X	X	X	-	-	-	-	-	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	X	X	X	-	X	X	X	-	-	-	-	-	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	X	X	X	-	X	X	X	-	-	-	-	-	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	-	-	-	-	-	X
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	X	-	X	X	X	-	-	-	-	-	N
51004*		17.44N	152.52W	X	X	X	-	X	X	X	-	-	-	-	-	N
51028		0.00N	153.86W	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: 57
 Total Other Buoys 11

 Total Moored Buoys 68

Remarks (d/m/yy):

42020 - Water temp failed 8/22/99.
 42036 - Wave data failed 8/19/99.
 42053 - Station failed 11/21/99, recovered 11/21/99.
 44014 - Parity errors in water temp data.
 44025 - Wave data failed 11/12/99.
 45001 - Recovered for winter season 11/9/99.
 45002 - Recovered for winter season 11/18/99.
 45003 - Recovered for winter season 11/30/99.
 45004 - Recovered for winter season 11/9/99.
 45005 - Recovered for winter season 11/30/99.
 45006 - Recovered for winter season 11/10/99.

45007 - Recovery for winter season scheduled week of 12/18/99.
 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.
 46011 - Buoy confirmed adrift 10/7/99, recovered 10/10/99, service scheduled week of 2/14/00.
 46028 - Station failed 8/17/99, redeployment scheduled week of 2/4/00.
 46035 - Parity errors in data.
 46041 - Parity errors in data.

AUSTRALIA

Moored Buoys

WMO Buoy ID	ARGOS ID	Position: 30 November 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
55038	2946	-35.183	138.303	X	X	X	X	X	-	-	X	-	-	-

Drifting Buoys (Drogued)

WMO Buoy ID	ARGOS ID	Position: 30 November 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
52625	1955	-14.089	138.993	X	X	X	X	X	-	-	X	-	-	-
53551	8097	-15.364	70.416	-	-	X	X	X	-	-	X	-	-	-
53552	2931	-15.997	114.397	-	-	X	X	X	-	-	X	-	-	-
55525	2948	-36.8	161.718	-	X	X	X	X	-	-	X	-	-	-
56502	1495	-59.086	97.416	-	X	X	X	X	-	-	X	-	-	-
56535	2939	-47.071	-5.432	-	X	X	X	X	-	-	X	-	-	-
56536	4876	-37.424	-155.287	-	-	S	-	X	-	-	X	-	-	-
56541	8037	-59.695	-159.103	-	X	X	X	X	-	-	X	-	-	-
56544	8039	-17.069	42.177	X	X	X	X	X	-	-	X	-	-	-
56545	2693	-34.79	126.884	-	S	X	X	X	-	-	X	-	-	-
56546	2489	-47.09	137.361	-	X	X	X	X	-	-	X	-	-	-
56549	8099	-57.535	129.558	-	-	X	X	-	-	-	X	-	-	-
56550	1870	-15.24	104.379	X	X	X	X	X	-	-	X	-	-	-

NEW ZEALAND

Drifting Buoys

WMO Buoy ID	ARGOS ID	Position: 1 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
8583	55590	27.3S	159.5E	-	X	X	-	X	-	-	X	-	-	-
7176	55586	36.5S	160.8E	-	-	X	-	-	-	-	X	-	-	-
20721	55576	29.6S	169.1E	-	X	X	-	X	-	-	X	-	-	-
22188	55577	30.1S	161.0E	-	X	X	-	X	-	-	X	-	-	-
22189	55572	36.3S	178.5W	-	X	X	-	X	-	-	X	-	-	-
8587	55571	33.6S	161.9E	-	-	X	-	-	-	-	X	-	-	-
8585	55588	42.5S	156.1E	-	X	X	-	X	-	-	X	-	-	-

FRANCE

Moored Buoys

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
13011*	-	1.6N	10.0W	X	X	-	-	X	-	-	-	X	-	-
15001*	-	10.0S	10.0W	X	X	-	-	X	-	-	-	X	-	-
15002*	-	0.0	10.0W	X	X	-	-	X	-	-	-	X	-	-
15003*	-	5.0S	10.0W	X	X	-	-	X	-	-	-	X	-	-
15005*	-	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	X	X	-	-	-	X	-

* Pirata project

** Cooperation UK Met. Office/Meteo-France

Drifting Buoys

Indian and Pacific 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
23589	29754	12.5S	88.6E	-	-	X	X	X	-	-	X	-	-	-
51683	5246	20.3S	163.9W	-	-	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
41599	8260	27.2N	37.2W	S	-	X	-	X	-	-	X	-	-	-
41637	8718	27.4N	46.2W	S	-	X	-	X	-	-	X	-	-	-

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Moored Buoys, Light Vessels, Islands and Fixed Platforms

WMO Buoy ID	ARGOS ID	Position: 01 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
03007*		60°35'N	01°16'W	X	X	X	X	-	-	-	X	-	X	-
03010*		59°05'N	04°24'W	X	X	X	X	-	-	-	X	-	X	-
03011*		59°08'N	05°50'W	X	X	X	X	-	-	-	X	-	X	-
03014*		60°07'W	02°04'W	X	X	X	X	-	-	-	X	-	X	-
03695*		51°40'N	01°06'E	X	X	X	X	-	-	-	X	-	X	-
62001	22573	45 14'N	05 00'W	X	X	X	X	X	X	-	X	-	X	-
62026	21272	55°20'N	02°20'E	X	X	X	X	X	X	-	X	-	X	-
62029	04007	48°42'N	12°25'W	X	X	X	X	X	X	-	X	-	X	-
62081	22572	51°00'N	13°20'W	X	X	X	X	X	X	-	X	-	X	-
62101		50°37'N	02°44'W	X	X	X	X	X	X	-	X	-	X	-
62103**		49°55'N	02°54'W	X	X	X	X	X	X	-	X	-	X	X
62105	15829	55°37'N	12°41'W	X	X	X	X	X	X	-	X	-	X	-
62106	21274	57°00'N	09°52'N	X	X	X	X	X	X	-	X	-	X	-
62107**		50°04'N	06°04'W	X	X	X	X	X	X	-	X	-	X	X
62108	06262	53°34'N	19°30'W	X	X	X	X	X	X	-	X	-	X	-
62109	21271	57°00'N	00°00'E	X	X	X	X	X	X	-	X	-	X	-
62112*		58°42'N	01°17'E	X	X	X	X	-	-	-	X	-	X	-
62118*		57°45'N	00°55'E	X	X	X	X	-	-	-	X	-	X	-
62126*		58°51'N	03°35'W	X	X	X	X	-	-	-	X	-	X	-
62129*		53°03'N	02°14'E	X	X	X	X	-	-	-	X	-	X	-
62163	21270	47°30'N	08°30'W	X	X	X	X	X	X	-	X	-	X	-
62301		52°10'N	05°05'W	X	X	X	X	X	X	-	X	-	-	-
62302		54°08'N	03°37'W	X	X	X	X	X	-	-	X	-	-	-
62303	06264	51°37'N	05°09'W	X	X	X	X	X	X	-	X	-	X	-
62304**		51°09'N	01°47'E	X	X	X	X	X	X	-		-	X	X
62305**		50°25'N	00°00'W	X	X	X	X	X	X	-	X	-	X	X
63103*		61°14'N	01°09'E	X	X	X	X	-	-	-	X	-	X	-

63111*		59°33'N	01°32'E	X	X	X	X	-	-	-	X	-	X	-
64045	15825	59°15'N	11°41'W	X	X	X	X	X	X	-	X	-	X	-
64046	03718	60 30'N	05 00'W	X	X	X	X	X	X	-	X	-	X	-

* Fixed platforms or islands

** Automatic Light Vessels

Drifting Buoys

WMO Buoy ID	ARGOS ID	Position: 01 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
48102	1261*	76.9N	76.5W	-	X	X	-	-	-	-	-	-	-	-
44625	12283	50.7N	16.4W	-	X	X	X	X	-	-	-	-	-	-
44626	12284	47.9N	42.0W	-	X	X	X	X	-	-	-	-	-	-
44627	12285	41.5N	45.0W	-	-	X	X	X	-	-	-	-	-	-
44628	12287	40.6N	41.1W	-	X	X	X	X	-	-	-	-	-	-
44621	12372	50.5N	16.9W	-	X	X	X	X	-	-	-	-	-	-
44629	12374	41.2N	35.6W	-	X	X	X	X	-	-	-	-	-	-
44630	12376	43.9N	30.2W	-	X	X	X	X	-	-	-	-	-	-
44780	26742	73.3N	28.5E	-	X	X	X	X	-	-	-	-	-	-
44768	26746	67.5N	12.1E	-	X	X	X	X	-	-	-	-	-	-
44764	28464	51.7N	4.9W	-	X	X	X	X	-	-	-	-	-	-
44766	28465	54.1N	18.9W	-	X	X	X	X	-	-	-	-	-	-
44765	28466	30.7N	53.3W	-	X	X	X	X	-	-	-	-	-	-
44613	28467	27.7N	28.4W	-	X	X	X	X	-	-	-	-	-	-
65591	28468	60.4N	8.7W	-	X	X	X	X	-	-	-	-	-	-
44624	28470	61.3N	0.9W	-	X	X	X	X	-	-	-	-	-	-
44742	28471	43.5N	6.5W	-	X	X	X	X	-	-	-	-	-	-
44721	28475	56.8N	33.4W	-	X	X	X	X	-	-	-	-	-	-
44722	28476	52.8N	39.4W	-	X	X	X	X	-	-	-	-	-	-
65599	28477	61.0N	39.0W	-	X	X	X	X	-	-	-	-	-	-

* Ice drifter

EUROPEAN GROUP ON OCEAN STATIONS

Drifting buoys: North Atlantic

France

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
44546	14538	40.9N	32.0W	-	-	X	X	X	-	-	X	-	-	-
44607	6216	52.6N	38.8W	X	-	X	X	X	-	-	X	-	-	-
44608	14540	40.3N	16.9W	-	-	X	X	X	-	-	X	-	-	-
44610	12734	55.8N	34.0W	-	-	X	X	X	-	-	X	-	-	-
62503	1362	41.0N	18.1W	-	-	S	S	X	-	-	X	-	-	-
62506	12733	37.6N	20.3W	X	-	X	X	X	-	-	X	-	-	-
62507	10111	40.5N	22.5W	-	-	X	X	X	-	-	-	-	-	-
62508	05822	42.8N	19.2W	X	X	X	X	X	-	-	-	-	-	-
62509	14537	47.2N	10.7W	-	-	X	X	X	-	-	X	-	-	-
62510	12732	48.7N	12.4W	X	-	X	X	X	-	-	X	-	-	-

62520	14431	30.4N	29.2W	-	-	X	X	X	-	-	-	-	-	-
64516	14176	64.5N	52.5W	-	-	X	X	X	-	-	X	-	-	-
64517	14178	55.4N	48.9W	-	-	X	X	X	-	-	X	-	-	-
64518	14180	57.3N	28.0W	-	-	X	X	X	-	-	X	-	-	-

Germany

WMO Buoy ID	ARGOS ID	Position: 14 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
44614	3037	49.724	-20.480	-	X	X	X	X	-	-	-	-	-	-
64529	6669	71.744	23.290	-	X	X	X	X	-	-	-	-	-	-
64530	4272	63.064	-24.910	-	X	X	X	X	-	-	-	-	-	-
64597	2294	61.350	-27.880	-	X	X	X	X	-	-	-	-	-	-
65594	2295	62.173	-33.230	-	X	X	X	X	-	-	-	-	-	-
65598	1298	59.167	-38.980	-	X	X	X	X	-	-	-	-	-	-

Iceland

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
64698	29867	59.0N	46.8W	-	-	X	X	X	-	-	X	-	-	-
64699	29868	60.1N	52.0W	-	-	X	X	X	-	-	X	-	-	-

Ireland

WMO Buoy ID	ARGOS ID	Position: 14 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
65596	3038	62.100	-22.871	-	X	X	X	X	-	-	-	-	-	-

The Netherlands

WMO Buoy ID	ARGOS ID	Position: 14 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
44723	16392	50.000	-39.956	-	-	X	X	X	-	-	X	-	-	-
62596	16391	54.100	-28.863	-	-	X	X	X	-	-	X	-	-	-
65595	4229	62.000	-20.488	-	X	X	X	X	-	-	-	-	-	-

Norway

WMO Buoy ID	ARGOS ID	Position: 14 December 1999		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
64546	3675	63.300	-22.505	-	X	X	X	X	-	-	-	-	-	-
65600	3676	59.900	-33.287	-	X	X	X	X	-	-	-	-	-	-

ARGOS SERVICE

ARGOS monthly status report

Date of Statistics computation: 2 November 1999

Date of Statistics computation: 1 December 1999

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

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

DRIFTING BUOY	1311
MARINE STATION	135
MOORED BUOY	332
TERRESTRIAL ANIMALS	119
MARINE ANIMALS	187
BIRDS	187
BALLOONS	5
RAFOS FLOATS	127
FIXED STATION	607
TOTAL	3010

DRIFTING BUOY	1333
MARINE STATION	132
MOORED BUOY	332
TERRESTRIAL ANIMALS	126
MARINE ANIMALS	206
BIRDS	159
BALLOONS	7
RAFOS FLOATS	130
FIXED STATION	634
TOTAL	3059

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

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	142
FIXED STATION	20
MOORED BUOYS	13

INSERTED BY RTH TOULOUSE

DRIFTING BUOY	134
FIXED STATION	19
MOORED BUOYS	11

INSERTED BY RTH/WMC WASHINGTON

DRIFTING BUOY	618
FIXED STATIONS	28
GPS MOBILE	-
MOORED BUOY	67

INSERTED BY RTH/WMC WASHINGTON

DRIFTING BUOY	632
FIXED STATIONS	29
GPS MOBILE	-
MOORED BUOY	66

CODING STATISTICS OF PLATFORMS

Reporting through ARGOS and distributed over the GTS

BATHY	312
BUOY	316691
SHIP	2036
SIMPLE	5587
SYNOP	34161
TOTAL	358787

CODING STATISTICS OF PLATFORMS

Reporting through ARGOS and distributed over the GTS

BATHY	300
BUOY	285370
SHIP	1914
SIMPLE	8443
SYNOP	28688
TOTAL	324715

2. Automated Shipboard Aerological Programme (ASAP)

NAME	SHIP	CALL SIGN	HEX ADDRESS	RELEASE HEIGHT	FOCAL POINT	COUNTRY
D/ASAP2	FS Meteor	DBBH	112057B4	6 m	Volker Wagner	Germany
					Phone: +49 40 3190 8821	
					Fax.: +49 40 3190 8942	
					Email: volker.wagner@dwd.de	
D/ASAP5	Hornbay	ELML7	112007C8	10 m	Volker Wagner	Germany
					Phone: +49 40 3190 8821	
					Fax.: +49 40 3190 8942	
					Email: volker.wagner@dwd.de	
DK/ASAP1	Arina Artica	OVYA2	Inmarsat-C	10 m	Klaus Hedegaard or Lars K. Andersen	Denmark
					Phone: +45 3915 7531	
					Fax.: +45 3927 1080	
					Email: kh@dmi.dk	
DK/ASAP2	Nuka Artica	OXYH2	Inmarsat-C	18 m	Klaus Hedegaard or Lars K. Andersen	Denmark
					Phone: +45 3965 3035	
					Fax.: +45 3965 0566	
					Email: lka@dmi.dk	
E/ASAP1	Esperanza del Mar	EHOA	11836376	10 m	Cesar Belandia	Spain
					Phone: +34 1 581 9651	
					Fax.: +34 1 581 9846	
					Email: cesar.belandia@inm.es	
F/ASAP1	Fort Royal	FNOR	1180F11A	13 m	François Bonnardot	France
					Phone: +33 1 30136110	
					Fax.: +33 1 30136060	
					Email: françois.bonnardot@meteo.fr	
F/ASAP2	Douce France	FNRS	11810364	27 m	François Bonnardot	France
					Phone: +33 1 30136110	
					Fax.: +33 1 30136060	
					Email: françois.bonnardot@meteo.fr	
F/ASAP3	Fort Fleur d'Epée	FNOU	11819606	13 m	François Bonnardot	France
					Phone: +33 1 30136110	
					Fax.: +33 1 30136060	
					Email: françois.bonnardot@meteo.fr	
F/ASAP4	Fort Desaix	FNPH	1181A39C	27 m	François Bonnardot	France
					Phone: +33 1 30136110	
					Fax.: +33 1 30136060	
					Email: françois.bonnardot@meteo.fr	
GB/ASAP2	Bransfeld	ZLDG	1120622E	7 m	Stuart Norwell	United Kingdom
					Phone: +44 1344 855654	
					Fax.: +44 1344 855921	
					Email: smnorwell@meto.gov.uk	
S-I ASAP1	Godafoss	V2EZ	Inmarsat-C	13m	Flosi H. Sigurdsson	Iceland
					Phone: +354 5 600 600	
					Fax.: +354 5 528 121	
					Email: flosi@vedur.is	
US/ASAP1	RV Ronald H. Brown	WTEC	Inmarsat-C	11.5 m	Elizabeth White	U.S.A.
					Phone: +1 301 713 2465	
					Fax.: +1 301 713 0158	
					Email: Elizabeth.White@noaa.gov	
US/ASAP2	RV Ka'imimoana	WTEU	Inmarsat-C	11 m	Elizabeth White	U.S.A.
					Phone: +1 301 713 2465	
					Fax.: +1 301 713 0158	
					Email: Elizabeth.White@noaa.gov	

3. WMO Catalogue of Radiosondes and Upper-air Wind-Finding Systems in Use

The new November/December 1999 Catalogue is attached at the end of this Newsletter and is also available at the following URL: <http://www.wmo.ch/web/ddbs/jen>

4. 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*".

5. Publication No. 9
Volume A – “Observing Stations”

IndexNbr	StationName	POSITION		Hp	Hha	Pressure Level	Surface Observations										Obs. H	Upper-Air			Other Observations and Remarks
		LAT.	LONG.				00	03	06	09	12	15	18	21	Obs. S	00		06	12	18	

REGION V- SOUTH-WEST PACIFIC - AUSTRALIA

- Station Closed (Global) - delete entry:

94185 COEN (POST OFFICE)
95703 BOURKE AIRPORT

- Station Closed (Regional) - delete entry:

94550 STANTHORPE
94566 GYMPIE (FORESTRY)
94873 MELBOURNE HARBOUR CONTROL
94916 CABRAMURRA
95816 STRUAN

- Current Station (Global) - amend entry to

94102	TROUGHTON ISLAND	13 45S	126 09E	8	6		23	02	05	08	11	14	17	20	S00-24											C;METAR
94122	CAPE FOURCROY	11 47S	130 01E	7	6		X	X	X	X	X	X	X	X												AUT;C
94268	KOWANYAMA AIRPORT	15 29S	141 45E	14	11		23	02	05	08	11	14	17	20	H00-24											AUT;METAR;C;SEA
94333	BOULIA AIRPORT	22 55S	139 54E	158	162		23	02	05	08	11		17	20												EVAP
94429	MOUNT MAGNET AERO	28 07S	117 50 E	409	411		01	04	07	10	13	16	19	22	H00-24											A;AUT;METAR;SPECI
94492	THARGOMINDAH POST OFFICE COMPARISON	28 00S	143 49E	130	129		23																			EVAP
94691	BROKEN HILL AIRPORT	32 00S	141 28E	282	292		23	02	05	08	11	14	17	20	H00-24											A;AUT;METAR;SPECI
94711	COBAR MO	31 29S	145 50E	264	260		23	02	05	08				20												CLIMAT(CT);EVAP;SOILTEMP;SUNDUR
94729	BATHURST AIRPORT AWS	33 25S	149 39E	745	742		23	02	05	08	11	14	17	20	H00-24											A;AUT;METAR;SPECI
94776	WILLIAMTOWN RAAF	32 48S	151 50E	8	10		23	02	05	08	11	14	17	20	S00-24											A;CLIMAT(CT);EVAP;METAR;SUNDUR
94850	KING ISLAND AIRPORT	39 53S	143 53E	38	40		23	02	05	08	11	14	17	20	H00-24											A;AUT;METAR;SPECI
94956	STRAHAN AERODROME	42 09S	145 16E	22	20		23	02	05	08	11	14	17	20	H00-24											A;AUT;C;METAR;SPECI

- Current Station (Regional) - amend entry to

94130	BRADSHAW	14 57S	130 48E	76	75		23	02	05	08	11	14	17	20												AUT	
94149	ALYANGULA POLICE	13 51S	136 25E	22	20		23		05					20												C	
94214	WYNDHAM POST OFFICE	15 29S	128 07E	16	11		01	04	07	10		16	19	22													
94231	LAJAMANU	18 20S	130 38E	317	318		23	02	05	08	11	14	17	20	H00-24												A
94291	INNISFAIL	17 31S	146 02E		8		23		05					20													

IndexNbr	StationName	POSITION		Hp	Hha	Pressure Level	Surface Observations										Obs. H	Upper-Air			Other Observations and Remarks
		LAT.	LONG.				00	03	06	09	12	15	18	21	Obs. S	00		06	12	18	
							23	02	05	08	11	14	17	20							
95771	CESSNOCK AIRPORT	32 47S	151 20E	62	64		23	02	05	08	11	14	17	20	H00-24				A;AUT;METAR;SPECI		
95772	LOSTOCK DAM SITE	32 20S	151 27E		200		23												EVAP		
95784	TAREE AIRPORT	31 53S	152 31E	9	12		23	02	05	08	11	14	17	20	H00-24				A;AUT;METAR;SPECI		
95812	MURRAY BRIDGE	35 07S	139 16E	15	15		23	02	05					20							
95896	ALBURY AIRPORT	36 04S	146 57E	165	165		23	02	05	08	11	14	17	20	H00-24				A;AUT;METAR;SPECI		
95909	THREDBO (CRACKENBACK STATION)	36 30S	148 17E	1368	1957		23	02	05	08	11	14	17	20					M		
95953	STRATHGORDON VILLAGE	42 46S	146 03E		322		23		05										EVAP;SUNDUR		
95957	WYNARD AIRPORT	41 00S	145 44E	12	19		23	02	05	08	11	14	17	20	H00-24				A;AUT;METAR;SPECI		
95967	CAPE BRUNY (CAPE BRUNY)	43 29S	147 09E	60	60		23	02	05	08	11	14	17	20					C;AUT		
95970	TARRALEAH CHALET	42 18S	146 27E		595		23		05												

● Station opened - new entry:

94153	GROOTE EYLANDT AIRPORT	13 59S	136 28E	14	17		23	02	05	08	11	14	17	20	H00-24				A;AUT;METAR;SPECI
94557	JIMNA FORESTRY	26 40S	152 28E	517			23	02	05	08	11	14	17	20					AUT
94576	BRISBANE CENTRAL	27 29S	153 02E	8	8		23	02	05	08	11	14	17	20					AUT
94644	RED ROCKS POINT	32 12S	127 32E	3	4		01	04	07	10	13	16	19	22					AUT
94823	PADTHAWAY	36 36S	140 29E	37			23		05										
94924	HOLT (PINE RIDGE)	35 14S	149 00E	605			23		05										
95146	NARAWILLI	12 00S	135 36E	5	6		23	02	05	08	11	14	17	20					AUT
95292	SOUTH JOHNSTONE EXP STN	17 36S	146 00E	18	19		23	02	05	08	11	14	17	20					AUT
95303	VARANUS ISLAND	20 39S	115 34E	24	25		01	04	07	10	13	16	19	22					AUT
95492	THARGOMINDAH AIRPORT	27 59S	143 49E	132	132		23	02	05	08	11	14	17	20					A;AUT
95603	KELLERBERRIN	31 37S	117 43E	250			01		07										
95615	BEVERLEY	32 06S	116 55E	199			01		07										
95616	PINGELLY	32 32S	117 05E	297			01		07										
95622	DONNYBROOK	33 34S	115 49E	63			01		07										
95631	GOOMALLING	31 18S	116 50E	239			01												
95641	WITCHCLIFFE	34 02S	115 06E	80			01	04	07	10	13	16	19	22					AUT
95642	NORSEMAN AERO	32 13S	121 45E	263	263		01	04	07	10	13	16	19	22	H00-24				A;AUT;METAR;SPECI
95668	GLUEPOT	33 46S	140 07E	55			23		05										
95705	YANCO AGRICULTURAL INSTITUTE	34 37S	146 26E	164	165		23	02	05	08	11	14	17	20					AUT
95748	WOLLONGONG AIRPORT	34 34S	150 47E	8	9		23	02	05	08	11	14	17	20	H00-24				A;AUT;METAR;SPECI
95874	VIEWBANK (ARPNSA)	37 44S	145 06E	66	66		23	02	05	08	11	14	17	20					AUT
95937	MORUYA AIRPORT	35 54S	150 09E	4	4		23	02	05	08	11	14	17	20	H00-24				A;AUT;METAR;SPECI

IndexNbr	StationName	POSITION		Hp	Hha	Pressure Level	Surface Observations											Upper-Air			Other Observations and Remarks
		LAT.	LONG.				00	03	06	09	12	15	18	21	00	06	12	18			

REGION V - SOUTH-WEST PACIFIC: MALAYSIA (PENINSULAR MALAYSIA)

48600	LANGKAWI	06 20N	99 44E	7	6		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	A;C;EVAP;METAR;SOLRA;SPECI;SUNDUR
48601	PENANG/BAYAN LEPAS	05 18N	100 16E	4	3		X	X	X	X	X	X	X	X	X	X	S00-24	RW	P	RW	A;CLIMAT(CT);EVAP;GAW;METAR;RSD;SOLRA;SPECI;SUNDUR;WR
48602	BUTTERWORTH	05 28N	100 23E	4	3		X	X	X	X	X	X	X	X	X	X	H00-24	P	P	P	A;METAR;RSD;SPECI
48603	ALOR STAR	06 12N	100 24E	5	4		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	A;EVAP;METAR;SOLRA;SPECI;SUNDUR
48604	CHUPING	06 29N	100 16E	22	22		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	AGRIMET;EVAP;PH;SOLRA;SUNDUR
48615	KOTA BHARU	06 10N	102 17E	5	5		X	X	X	X	X	X	X	X	X	X	H00-24	RW	P	RW	A;CLIMAT(CT);EVAP;METAR;RSD;SOILTEMP;SOLRA;SPECI;SUNDUR;WR
48616	KUALA KRAI	05 32N	102 12E	65	68		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	EVAP;SOLRA;SUNDUR;METAR SPECI
48618	KUALA TRENGGANU	05 23N	103 06E	6	5		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	A;EVAP;METAR;SOLRA;SPECI;SUNDUR
48619	KUALA TRENGGANU/CLIMAT	05 20N	103 08E	36	35		X	X	X	X	X	X	X	X	X	X	H00-06	.	.	.	EVAP;SUNDUR;SEISMO
48620	SITIAWAN	04 13N	100 42E	8	7		X	X	X	X	X	X	X	X	X	X	H00-24	P	P	P	A;EVAP;METAR;SOLRA;SPECI;SUNDUR
48623	LUBUK MERBAU	04 48N	100 54E	78	77		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	AGRIMET;EVAP;SOLRA;METAR;SPECI;SUNDUR,PH
48625	IPOH	04 34N	101 06E	40	40		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	A;EVAP;METAR;SEISMO;SOLRA;SPECI;SUNDUR
48632	CAMERON HIGHLANDS	04 28N	101 22E		1545		X	X	X	X	X	X	X	X	X	X	H00-12	.	.	.	EVAP;GAW;M;MONT;SOLRA;SUNDUR
48642	BATU EMBUN	03 58N	102 21E	61	59		X	X	X	X	X	X	X	X	X	X	H00-15	.	.	.	AGRIMET;EVAP;PH;SOLRA;SUNDUR
48647	KUALA LUMPUR/SUBANG	03 07N	101 33E	22	17		X	X	X	X	X	X	X	X	X	X	S00-24	P	P	P	A;AUT;CLIMAT(C);EVAP;METAR;RSD;SOLRA;SPECI;SUNDUR
48648	PETALING JAYA	03 06N	101 39E	47	46		X	X	X	X	X	X	X	X	X	X	H00-12	RW	.	RW	CLIMAT(T);GAW;SEISMO;SOLRA;SUNDUR
48649	MUADZAM SHAH	03 03N	103 05E	34	33		X	X	X	X	X	X	X	X	X	X	H00-15	.	.	.	AGRIMET;EVAP;PH;SOLRA;SUNDUR
48650	SEPANG	02 43E	101 42E	17	16		X	X	X	X	X	X	X	X	X	X	H00-24	RW	P	RW	A;EVAP;METAR;SPECI;SUNDUR,SOLRA;RSD,GAW,OZONE
48653	TEMERLOH	03 28N	102 23E	40	39		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	EVAP;SOLRA;SUNDUR
48657	KUANTAN	03 47N	103 13E	16	15		X	X	X	X	X	X	X	X	X	X	H00-24	RW	P	RW	A;CLIMAT(CT);EVAP;METAR;RSD;SOLRA;SPECI;SUNDUR;WR
48665	MALACCA	02 16N	102 15E	9	9		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	A;CLIMAT(C);EVAP;METAR;SOLRA;SPECI;SUNDUR
48670	BATU PAHAT	01 52N	102 59E	7	6		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	EVAP,SOLAR, METAR, SPECI,SUNDUR
48672	KLUANG	02 01N	103 19E	86	88		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	EVAP;RSD;SEISMO;SOLRA;SUNDUR,METAR,SPECI
48674	MERSING	02 27N	103 50E	45	44		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	C;CLIMAT(C);EVAP;SEA/SWELL;SOLRA;SUNDUR
48679	JOHORE BHARU/SENAI	01 38N	103 40E	40	38		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	A;EVAP;METAR;SOLRA;SPECI;SUNDUR
96413	KUCHING	01 29N	110 20E	27	22		X	X	X	X	X	X	X	X	X	X	S00-24	RW	P	RW	A;CLIMAT(CT);EVAP;METAR;SOLRA;SPECI;SUNDUR;WR,RSD
96418	SRI AMAN/SIMANGGANG	01 13N	111 27E	10	10		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	EVAP;SUNDUR
96421	SIBU	02 20N	111 50E	31	31		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	A;CLIMAT(C);EVAP;METAR;SPECI;SUNDUR,SEISMO
96441	BINTULU	03 12N	113 02E	5	3		X	X	X	X	X	X	X	X	X	X	H00-24	RW	P	RW	A;C;CLIMAT(CT);EVAP;METAR;SPECI;SUNDUR;WR,RSD

IndexNbr	StationName	POSITION		Hp	Hha	Pressure Level	Surface Observations												Obs. H	Upper-Air			Other Observations and Remarks
		LAT.	LONG.				00	03	06	09	12	15	18	21	00	06	12	18					

96449	MIRI	04 20N	113 59E	18	17		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	.	A;C;CLIMAT(C);EVAP;METAR;SOLRA;SPECI;SUNDUR	
96465	LABUAN	05 18N	115 15E	30	29		X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	.	A;C;CLIMAT(C);EVAP;METAR;SPECI;SUNDUR	
96471	KOTA KINABALU	05 56N	116 03E	3	2		X	X	X	X	X	X	X	X	X	RW	S00-24	RW	P	RW	P	RW	P	A;C;CLIMAT(CT);EVAP;METAR;RSD;SOLRA;SPECI;SUNDUR;WR,SEISMO
96477	KUDAT	06 55N	116 50E	5	3		X	X	X	X	.	.	.	.	.	.	H22-12	.	.	.	.	.	A;C;EVAP;METAR;SPECI;SUNDUR	
96481	TAWAU	04 16N	117 53E	20	20		X	X	X	X	X	X	X	X	X	RW	H00-24	RW	.	RW	.	RW	.	A;CLIMAT(CT);EVAP;METAR;SPECI;SUNDUR;WR,SEISMO
96491	SANDAKAN	05 54N	118 04E	13	10		X	X	X	X	X	X	X	X	X	P	H00-24	P	P	P	P	P	P	A;C;CLIMAT(C);EVAP;METAR;SPECI;SUNDUR

REGION VI - EUROPE - UNITED KINGDOM AND NORTHERN IRELAND

- Station opened - new entry:

03096	BRIDGE OF CALLY	56 39N	03 23W	175			.	.	X	X	X	X	X	X	X	.	H07-09	.	.	.	.	.	.	AUT
03522	HEREFORD/CREDENHILL	52 05N	02 48W	76			X	X	X	X	X	X	X	X	X	.	H00-24	.	.	.	.	.	.	AUT

- Current Station - amend entry to

03797	MANSTON	51 21N	01 21E	44			X	X	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	.	.	A;C;CLIMAT(C);MB;SEMI-AUT;SNOW;SUNDUR
03100	TIREE	56 30N	06 53W	12			X	X	X	X	X	X	X	X	X	.	H00-24	.	.	.	.	.	.	A;CLIMAT(C);METAR;NLC;ON/LES 1-5*;SEMI-AUT;SOILTEMP;SUNDUR
03862	BOURNEMOUTH/HURN	50 47N	01 50W	10	11		X	X	X	X	X	X	X	X	X	.	H00-24	.	.	.	.	.	.	A;CLIMAT(C);METAR;S06-20 SUMMER/E/TE;SEMI-AUT;SPECI;SUNDUR
03063	AVIEMORE	57 12N	03 50W	228			X	X	X	X	X	X	X	X	X	.	H00-24	.	.	.	.	.	.	SEMI-AUT;SKYRA;SNOW;SOILTEMP;SOLRA;SUNDUR
03763	BEAUFORT PARK	51 23N	00 47W	74			X	X	X	X	X	X	X	X	X	.	H00-24	.	.	.	.	.	.	AUT;OZONE;SFERIC;SKYRA;SOILTEMP; SOLRA;SUNDUR
03162	ESKDALEMUIR	55 19N	03 12W	242			X	X	X	X	X	X	X	X	X	.	H00-24	.	.	.	.	.	.	ATMEL;CLIMAT(C);EVAP;GAW;MAGNET;NLC; NOCTRA; RADSAMP; SEISMO;SEMI-AUT;SKYRA; SNOW;SOILTEMP; SOLRA;SUNDUR

- Station Closed - delete entry:

03608 Pendine CARD
 10405 Laarbruch
 03695 Thames Tower

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 4a ₃ hhh
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”

IV. MARINE METEOROLOGICAL SERVICES

1. PUBLICATION No. 9 - Volume D – "Information for Shipping"

Chapter I. Meteorological Broadcast Schedules for Shipping and other Marine Activities Part 2. Meteorological Broadcasts by Radio-facsimile

Notification from Germany

The following pages should replace the equivalent pages in the above publication.

Centre: OFFENBACH (MAIN)-HAMBURG/PINNEBERG (broadcast for shipping)
Area in which the broadcast is received: North Atlantic north of 40°N, East of 55°W, North Sea and Baltic Sea

Date: 1.XII.1999

I. TECHNICAL SPECIFICATIONS — CARACTÉRISTIQUES TECHNIQUES

A	B		C		D
Call sign	Hours of operation	Frequency	Class of emission	Band width	Power supplied to the antenna
DDH3		3 855 kHz	F1C	(white/ +425 Hz)	10,0 kW
DDK3		7 880 kHz		(	20,0 kW
DDK6		13 882,5 kHz		(black -425 Hz)	20,0 kW

II. MAP AREA — ZONE COUVERTE PAR LA CARTE

Area	Area coverage	Projection	Scale
BQ1	58°N-08°E	Stereographic	
	53°N-08°E		
BQ2	66°N-12°E	Mercator	
	57°N -12°E		
BQ3	58°N-08°E	Mercator	
	54°N-08°E		
EN	60°N-09°W	Stereographic	1: 2.000.000 scale indications refer to 60°N latitude

Centre: **OFFENBACH (MAIN)-HAMBURG/PINNEBERG** (broadcast for shipping/diffusion pour la navigation maritime) (continued/suite)

	50°N-04°W	51°N-12°E						
NA	43°N-67°W	61°N-79°E	Stereographic		1: 20.000.000 (A3) scale indications refer to 60°N latitude			
	19°N-27°W	27°N-33°E			1: 15.000.000 (A2)			
NT1	41°N-114°W	60°N-36°E	Stereographic		1: 15.000.000			
	14°N-70°W	21°N-13°W						
NT2	60°N-65°W	60°N-38°W	Mercator					
	40°N -65°W	40°N-38°W	Mercator					
NT3	48°N-117°W	63°N-42°E	Stereographic		1: 15.000.000 scale indications refer to 60°N latitude			
	05°N-63°W	10°N -18°W						
NT4	64°N-94°W	71°N-71°E	Stereographic		1: 10.000.000 scale indications refer to 60°N latitude			
	39°N-39°W	42°N-12°E						
NT5	69°N-110°W	61°N-70°E	Stereographic					
	25°N-37°W	24°N-02°E						
NT6	59°N-82°W	61°N-28°W	Stereographic					
	43°N-70°W	44°N-35°W						
NT7	53°N-70°W	52°N-26°W	Stereographic					
	36°N-63°W	36°N-33°W						

1	Abbreviated Heading En-tête abrégé	2	3	4	5	6	7
	CCCC	(GG)					
QPOA89	EDZW	0000	0430	19	120/576	NA	Surface weather chart ¹⁾
PPOF89	EDZW	1800	0512	11	120/576	NA	H+30 (GME) Surface pressure ¹⁾
QPYA89	EDZW	0000	0525	19	120/576	NT1	Surface pressure anal., arrows showing the movement of pressure systems, tropical storms, sigwx, ice
PLNT98	EDZW	0300	0546	11	120/576		Information of tropical storms, North Atlantic (during the season)
PHOE50	EDZW	0000	0559	11	120/576	NA	H+12, H+24 (GME) 500 hPa H+T, surface P
PROE70	EDZW	0000	0612	11	120/576	NA	H+12, H+24 (GME) 850 hPa T, 700 hPa F

Centre: **OFFENBACH (MAIN)-HAMBURG/PINNEBERG** (broadcast for shipping/diffusion pour la navigation maritime) (continued/suite)

1		2		3	4		5	6		7	
Abbreviated Heading En-tête abrégé		Time Group Groupe Horaire		Transmission time Heure de transmission	Duration of transmission Durée de la transmission		Drum speed/index of co-operation Vitesse du cylindre/ Module de coopération	Map area Zone couverte		Details of chart	
TTAAii		(GG)		(UTC)	(DD)			par la carte			
PHOI50	EDZW	0000	0625	11	120/576	NA	H+36, H+48 (GME) 500 hPa H+T, surface P				
PROI70	EDZW	0000	0638	11	120/576	NA	H+36, H+48 (GME) 850 hPa T, 700 hPa F				
PHOK50	EDZW	0000	0651	11	120/576	NA	H+60, H+72 (GME) 500 hPa H+T, surface P				
PROK70	EDZW	0000	0704	11	120/576	NA	H+60, H+72 (GME) 850 hPa T, 700 hPa F				
PPOF89	EDZW	1800	0717	11	120/576	NA	Repetition chart 0512 UTC 1)				
PPOI89	EDZW	0000	0730	11	120/576	NA	H+48 (EM) Surface pressure 1)				
QPYA89	EDZW	0000	0743	19	120/576	NT1	Repetition chart 0525 UTC				
PPOK89	EDZW	0000	0804	11	120/576	NA	H+72 (EM) Surface pressure 1)				
PPOM89	EDZW	0000	0817	11	120/576	NA	H+96 (GM) Surface pressure				
PIAA88	CWIS	0000	0930	11	120/576	NT6/NT7	Ice conditions chart North-West Atlantic 2)				
QTUA88	EDZW	0000	0945	20	120/576	EN	SST North Sea 3)				
QIMA88	EDZW	0000	1007	20	120/576	BQ1	Ice conditions chart West Baltic Sea 3) 4) OR				
QIOA88	EDZW	0000				NT2	Ice conditions chart West Atlantic 3) 5)				
QJOI88	EDZW	0000	1029	19	120/576	NT3	H+48 Wave prediction				
QPOA89	EDZW	0600	1050	19	120/576	NA	Surface weather chart				
QZZZ93	EDZW	0000	1111	19	120/576		Transmission schedule				
PZZZ91	EDZW	0000	1124	11	120/576		Test chart				
QIMA88	ESWI	0900	1520	19	120/576	BQ2	Ice conditions chart Baltic Sea 4) 6) OR				
QIXA88	EDZW	0900				XX1	Special area 3)				
QIPA898	ESWI	0900	1540	19	120/576	BQ3	Ice conditions chart Baltic Sea 4) 6) OR				
QIYA88	EDZW	0900				XX2	Special area 3)				
QPOA89	EDZW	1200	1600	19	120/576	NA	Surface weather chart 1)				
QPYA89	EDZW	1200	1800	19	120/576	NT1	Surface pressure anal. Arrows showing the movement of pressure systems, sigwx., ice				
PLNT98	EDZW	1500	1821	11	120/576		Information of tropical storms, North Atlantic (during the season)				

Centre: **OFFENBACH (MAIN)-HAMBURG/PINNEBERG** (broadcast for shipping/diffusion pour la navigation maritime) (continued/suite)

PPOE89	EDZW	1200	1834	11	120/576	NA	H+24 (EMV) Surface pressure 1)
PPOI89	EDZW	0000	1847	11	120/576	NA	Repetition chart 0808 UTC ¹⁾
PPOK89	EDZW	0000	1900	11	120/576	NA	Repetition chart 0821 UTC ¹⁾
PIINT21	EGRR	0000	1915	11	120/576	NT4/NT5	Sea ice observations or SST ⁷⁾
PIAA88	CWIS	1200	2100	11	120/576	NT6/NT7	Ice conditions chart North-West Atlantic 2)
QIMA88	ESWI	1500	2115	19	120/576	BQ2	Ice conditions chart Baltic Sea 4) 6) OR
QIOA88	EDZW	1500				NT2	Ice conditions chart West Atlantic 3) 5)
QJOI88	EDZW	1200	2137	19	120/576	NT3	H+48 Wave prediction
QPOA89	EDZW	1800	2200	19	120/576	NA	Surface weather chart 1)

Abbreviations "Column 7" / Abréviations "Colonne 7"

- GME Global model (31 layers, 60 km)
- H Contour lines (gpdam)
- P Mean sea-level pressure (hPa)
- T Isotherms (°C)
- U Relative humidity (%)

¹⁾ If the manually modified chart is not available then the automatically processed chart will be broadcast where the heading "ii" = 98 instead of "iii" = 89
²⁾ Issued by: Canadian Ice Service Ottawa or USCG International Ice Patrol
³⁾ Issued by: "Bundesamt für Seeschifffahrt und Hydrographie"
⁴⁾ Irregularly, only if required because of the ice conditions.
⁵⁾ During the iceberg season (February/March - July/August)
⁶⁾ Rebroadcast of Norrköping (ESWI) transmissions.
⁷⁾ Rebroadcast of Bracknell (EGRR) transmissions.

III. GLOBAL TELECOMMUNICATION SYSTEM

1. LIST OF RTH FOCAL POINTS

RTH	Zone of Responsibility	Focal Point Name	E-mail	Tel.	Fax.	Address	Country
Algiers	Algeria, Libyan Arab Jamahiriya, Morocco, Tunisia	Mr A. Kerbachi		213 250 6878	213 250 7940	Office national de la Météorologie BP 153 DAR EL BEIDA	Algeria
Brazzaville	Congo, Cameroon, Central African Republic, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Sao Tome and Principe						Congo
Cairo	Egypt, Libyan Arab Jamahiriya, Sudan	Mr M.A. Bekhiet		20 2 83 01 05	20 2 284 98 57	Egyptian Meteorological Authority P.O. Box 11784	Egypt
Dakar	Senegal, Ascension Is., Canary Is., Cape Verde, Cote d'Ivoire, Gambia, Guinea, Guinea-Bissau, Liberia, Madeira, Mali, Mauritania, Morocco, Nigeria, Sierra Leone, St.Helena Is., Western Sahara	M. M. Sonko		221 820 1041	221 820 13 27	Direction de la Météorologie Nationale B.P. 5287, Aeroport L.S. Senghor	Senegal
Lusaka	Zambia, Malawi, Zimbabwe	Mr G. Maheritona		260 1 25 27 28	260 1 25 27 28	Meteorological Department P.O. Box 30200	Zambia
Pretoria	South Africa (Gough & Marion Islands), Angola, Botswana, Comoros, Kerguelen, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, New Amsterdam, Reunion, Seychelles, Swaziland, Zimbabwe	Mr T. Potgieter	potgieter@cirrus.sawb.gov.za	27 12 309 30 95	27 12 323 4518	South African Weather Bureau Department of Environment Affairs Private Bag X097	South Africa
Nairobi	Kenya, Burundi, Djibouti, Ethiopia, Reunion, Rwanda, Somalia, Tanzania (United Republic of), Uganda	Mr James Abongo	james.abongo@llion.meteo.gr kc	254 2 567 880	254 2 567 888/9	Kenya Meteorological Department P.O. Box 30259	Kenya
Niamey	Niger, Benin, Burkina Faso, Chad, Ghana, Nigeria, Togo	Mr Harouna Kimba		227 73 21 60	227 73 38 37	Météorologie nationale Service météorologique du Niger B.P. 218	Niger
Beijing	China, Democratic People's Republic of Korea, Viet Nam	Mr Shi Peiliang		86 10 621 72 277	86 10 621 74 797	China Meteorological Administration 46 Baishiqiao Road	China
Jeddah	Saudi Arabia, Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, Yemen						Saudi Arabia

RTH	Zone of Responsibility	Focal Point Name	E-mail	Tel.	Fax.	Address	Country
Khabarovsk	Russian Federation (Asia), Democratic People's Republic of Korea	Mr Y.i. Bukin	aspd@aspd.hbrw.mecom.ru	421 233 45 17	421 233 45 17	Dalnevostochnoe UGMS 18 Lenina street	Russian Federation
New Delhi	India, Bangladesh, Bhutan, Maldives, Myanmar, Nepal, Pakistan, Sri Lanka	Dr T.K. Ray	tkray@imd.ernet.in	91 11 461 6051	91 11 469 9216 / 91 11 462 3220	India Meteorological Department Mausam Bhavan, Lodi Road, New Delhi - 110003	India
Novosibirsk	Russian Federation (Asia), Mongolia	Mr N.V. Virkhobsky		383 222 43 88	383 222 63 47	Zapadnosibirskoe UGMS 30 Sovyetskaya Street	Russian Federation
Bangkok	Thailand, Cambodia, Lao People's Democratic Republic, Myanmar, Viet Nam	Mr C. Eg-karntrong	Chateg@metnet.tmd.go.th	662 398 9861	662 398 4597	Meteorological Department 4353 Sukumvit Road Bang-Na	Thailand
Tashkent	Uzbekistan, Afghanistan (Islamic State of), Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan	Mr V.E. Davydov	uzhymet@hmc.tashkent.su	7 3712 33 83 72	7 3712 33 20 25	Main Administration of Hydrology 72 Observatorskaya Street	Uzbekistan
Tehran	Iran (Islamic Republic of), Iraq, Pakistan, Yemen	Mr A. Borghei		98 21 600 40 41	98 21 646 90 44	Islamic Republic of Iran Meteorological Organization (IRMO) P. O. Box 13185-461	Islamic Republic of Iran
Tokyo	Japan, Hong Kong (China), China, Macau, Republic of Korea	Mr H. Ichijo	h_ichijo@met.kishou.go.jp	81 3 3218 3825	81 3 3211 8404	Japan Meteorological Agency 1-3-4 Otemachi Chiyoda ku	Japan
Brasilia	Brazil	Mr J. Mauro de Rezende	jmauro@inmet.gov.br	55 61 226 6961	55 61 226 6967	Instituto Nacional de Meteorologia Eixo Monumental - via S1 70610-400 Brasilia DF	Brazil
Buenos Aires	Argentina, Bolivia, Chile, Islands in the South Atlantic, Paraguay, Peru, Uruguay, Centro Meteorológico Antártico Vicecomodoro Marambio	Mr J.M. Alfonso	afonso@meteofa.mil.ar	54 11 4514 4230 / 4514 4224	54 11 4514 4225	Servicio Meteorológico Nacional 25 de Mayo 658, 1002 Buenos Aires	Argentina
Maracay	Venezuela, Colombia, Ecuador, French Guiana, Guyana, Suriname	Mr Tirso Carballo Gutierrez	semefav@telcel.net.ve	58 43 544 021 or 546 975	58 43 546 975 or 338 043	Servicio de Meteorología (FAV) Apartado de Correos 2197 Las Delicias Edo. Aragua	Venezuela
Washington	All Region IV	Mr J. Fenix	james.fenix@noaa.gov	1 301 713 08 77	1 301 608 09 11	National Weather Service, NOAA	USA

RTH	Zone of Responsibility	Focal Point Name	E-mail	Tel.	Fax.	Address	Country
Melbourne	Australia, Brunei Darussalam, East Timor, Fiji, French Polynesia, Indonesia, Kiribati, Malaysia, New Caledonia, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Is., Tonga, Tuvalu, Vanuatu, Wallis & Futuna Is.	Mr B. Sumner	b.sumner@bom.gov.au	613 9669 4349	613 9662 1222	Bureau of Meteorology G.P.O. Box 1289 K, Vic. 3001	Australia
Wellington	New Zealand and Adjacent Island, Cook Islands, Niue, Pitcairn, Tokelau	Mr Kevin Alder	alder@met.co.nz	64 4 472 9379	64 4 473 5231	Customer Services Manager Meteorological Service of New Zealand Ltd 30 Salamanca Road, P.O. Box 722	New Zealand
Bracknell	United Kingdom, Greenland (Kalaallit Nunaat), Iceland, Ireland, Netherlands, Former Mike: LDWR	Ms P. Dickinson	pdickinson@meto.gov.uk	44 1 344 854 476	44 1 344 854 543	Meteorological Office London Road, Berkshire	United Kingdom
Moscow	Russian Federation (Europe), Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova, Ukraine	Mr L. Bezrouk	bez@mskw.mecom.ru	7095 255 14 77	7095 252 55 04	Russian Federal Services for Hydrometeorology and Monitoring of the Environment Novovagankovsky pez. 12	Russian Federation
Norrkoping	Sweden, Denmark and Faroe Islands, Ferroe, Estonia, Finland, Latvia, Lithuania, Norway	Mrs. Gunilla Mild	Gunilla.mild@smhi.se	46 11 495 8507	46 11 495 8001	Swedish Meteorological and Hydrological Institute, SE 60176 Norrkoping	Sweden
Offenbach	Germany, Israel, Switzerland	Dr. H. Dunke	hdunke@dwd.d400.de	49 69 80 62 28 66	49 69 80 62 28 80	Deutscher Wetterdienst Zentralamt Frankfurter Str. 135	Germany
Prague	Czech Republic, Poland, Slovakia	Mr L. Keller	keller@chmi.cz	420 2 4403 2130	420 2 4403 2128	Czech Hydrometeorological Institute, Na Sabatce 17	Czech Republic
Rome	Italy, Greece, Lebanon, Malta, Turkey	Mr. G. Tarantino					Italy

RTH	Zone of Responsibility	Focal Point Name	E-mail	Tel.	Fax.	Address	Country
Sofia	Bulgaria, Albania, Cyprus, Jordan, Romania, Syrian Arab Republic, The Former Yugoslav Republic of Macedonia, Yugoslavia	Ms M. Grueva		3592 72 22 71/75	3592 88 03 80	National Institut of Meteorology and Hydrology, 66 Tzarigradsko chaussee Blvd	Bulgaria
Toulouse	France, Belgium, Portugal, Spain	Mr F. Dutartre	Francis.Dutartre@meteo.fr	33 5 61 07 81 50	33 5 61 07 81 09	Service central d'exploitation de la Météorologie, SCEM/TTI/OP, 42. avenue G. Coriolis	France
Vienna	Austria, Croatia, Hungary, Slovenia	Mr H. Cordes	horst.cordes@austrocontrol.at	43 1 1703 4050	43 1 1703 4006	Austro Control, Osterreichische Gesellschaft fur Zivilluftfahrt mbH Schnirchgasse 11	Austria