



Téléphone: National (022) 730 81 11
International + 41 22 730 81 11
Télégrammes: METEOMOND GENÈVE
Télex: 41 41 99 OMM CH
Facsimilé: 41 22 734 23 26

SECRÉTARIAT
GENÈVE - Suisse

41, Giuseppe-Motta
Case postale N° 2300
CH - 1211 Genève 2

W/OIS

GENEVA, 31 March 1992

Annexes: 5

Subject: Monthly letter on the operation of the World Weather Watch (WWW) and Marine Meteorological Services (MMS) – March 1992

Action required: To be noted and brought to the attention of appropriate operational units

Dear Sir/Madam,

As you are aware, all the information on changes to the operation of the World Weather Watch (WWW) and Marine Meteorological Services (MMS) is being assembled and distributed by the Secretariat on a monthly basis to facilitate updating and follow-up action.

In this connection, please find attached the annexes providing the latest operational information on WWW and MMS. Those items and sub-items for which information is provided are listed below:

ANNEX I – Global Observing System

C. Information on operational status of elements of the surface-based sub-system

1. Publication No. 9, Volume A - Stations
 - 1.1 New stations
 - 1.2 Deleted stations
 - 1.3 Changes to existing stations
 - 1.5 Temporary changes

To: Permanent Representatives (or Directors of Meteorological or Hydro-meteorological Services) of Members of WMO (PR-4724)
Directors of Meteorological Services of non-Member countries (MC-2464)
Presidents and Vice-Presidents of Regional Associations (P.RA-1288)
Presidents and Vice-Presidents of Technical Commissions (P.TC-1405)
Chairmen of CBS Working Groups
Secretary-General of ICAO
Director-General of IATA
Secretary of IOC
Director-General of ASECNA
Director of ECMWF

ANNEX I – Global Observing System (cont.)

- C. Information on operational status of elements of the surface-based sub-system**
 - 4. Automatic marine stations**
 - 4.1 Canada**
 - 4.1.1 Moored Buoys**
 - 4.1.2 Drifting Buoys**
 - 4.2 United States of America**
 - 4.2.1 Moored Buoys**
 - 4.2.2 Drifting Buoys**
 - 5. ARGOS service**
 - 5.1 ARGOS monthly status report**
 - 5.2 TOGA programme**
 - 7. Feed-back from Members to the Secretariat on any changes in the observing network**

D. Information on operational status of space sub-system

ANNEX II – Global Data-processing System

- A. GDPS regulatory or guidance material**

ANNEX III – Global Telecommunication System

- C. Information on the operation of the GTS**
 - 1. Catalogue of Meteorological Bulletins (Publication No. 9, Volume C, Chapter I)**
 - 1.5 Bulletins for oceanographic data**

E. Status report on WWW implementation

ANNEX IV – Codes

- B. Codes**
 - 1. Global practices**
 - 2. Regional practices**
 - 2.3 Changes to codes**
 - 3. National practices**
 - 3.3 Changes to codes or procedures**

ANNEX V – Marine Meteorological Services (MMS)
and related oceanographic activities

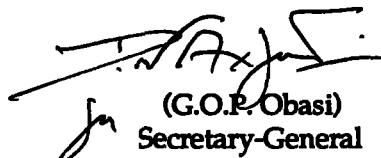
C. Information on the operation of Marine Meteorological Services

2. Marine meteorological services available for main ports (Publication No. 9,
Volume D, Part C₁)

The CBS Advisory Working Group recommended that a special table should be added to the monthly letter to report changes of the present status of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations. You will note, therefore, that a new item, number 7, "Feed-back from Members to the Secretariat on any changes in the observing network" has been added to Annex I - Global Observing System.

Your co-operation in ensuring that the above information reaches the appropriate operational units of your service is greatly appreciated. If you wish to receive additional copies of the monthly circular letter, please inform the Secretariat accordingly.

Yours faithfully,



(G.O.P. Obasi)
Secretary-General

ANNEX I - Global Observing System

Date: March 1992

C. Information on operational status of elements of the surface-based sub-system

1. Publication No. 9, Volume A - Stations

1.1 New stations

Index No.	Name	Latitude	Longitude	Elevation		Pressure Level	Surface observations							Obs. H 00 03 06 09 12 15 18 21	Upper-air 00 06 12 18	Re- marks	
				HP	H/Ha		00	03	06	09	12	15	18	21			
10267	KYRITZ	52° 56 'N	12° 25 'E	42	40		X	X	X	X	X	X	X	X	H00-24	. . . .	AUT
10286	WOLDEGK	53° 28 'N	13° 37 'E	-	118		.	.	X	X	X	.	.	.		. . . .
10551	SUHL	50° 37 'N	10° 40 'E	505	505		.	.	X	X	X	.	.	.	H05-14	. . . .
10671	COBURG	50° 17 'N	10° 59 'E	323	322		X	X	X	X	X	X	X	X	H00-24	. . . .
10838	ULM	48° 23 'N	09° 57 'E	571	567		X	X	X	X	X	X	X	X	H00-24	. . . .
10870	MUENCHEN, FLUGHAFEN (effective 17.5.92)	48° 21 'N	11° 47 'E	448	448		X	X	X	X	X	X	X	X	S00-24	. . . .
38353	BISHKEK	42° 48 'N	74° 30 'E	756	-	850hPa	X	X	X	X	X	X	X	X		RW . RW .	
65378	KOUMA-KONDA	06° 57 'N	00° 35 'E	641	643		X	X	X	X	X	X	X	X	H00-24	. . . .
74001	REDSTONE ARSENAL, AL	34° 36 'N	86° 38 'W	175	-		-	-	-	-	-	-	-	-		. . . .
89002	NEUMAYER (effective 1.4.92)	70° 40 'S	08° 15 'W	50	50		X	X	X	X	X	X	X	X		. . RW .	
93026	WHANGARURU	35° 20 'S	174° 19 'E	-	20		.	.	.	.	.	.	.	X		. . . .
93113	MUSICK-POINT	36° 50 'S	174° 54 'E	-	18		X	X	X	.	.	X	X			. . . .
93173	HAMILTON AWS	37° 51 'S	175° 20 'E	53	53		X	X	X	X	X	X	X	X	H00-24	. . . .	AUT
93194	ORETE POINT AWS	37° 36 'S	177° 54 'E	6	6		X	X	X	X	X	X	X	X	H00-24	. . . .	AUT
93556	MOLESWORTH	42° 05 'S	173° 16 'E	-	893		.	.	.	.	.	.	.	X		. . . .
93732	TASMAN AERO	43° 46 'S	170° 08 'E	-	656		.	.	.	.	.	.	X	.		. . . .
93772	TIMARU AERODROME	44° 18 'S	171° 13 'E	-	27		.	.	.	.	.	.	.	.	H19-02	. . . .

1.2 Deleted stations

Index No.	Name
10318	BORGHOLZHAUSEN
10411	GELSENKIRCHEN ERLE
10671	COBURG
10714	ZWEIBRUECKEN
10838	ULM
10862	SIEGENBURG
10866	MUENCHEN-RIEM (effective 17.5.92)
38353	FRUNZE
89002	GEORG VON NEUMAYER (effective 1.4.92)
93188	PONGAKAWA
93221	TAUMARUNUI
93311	NEWPLYMOUTH
93641	LAKE COLERIDGE

1.3 Changes to existing stations

Index No.	Name	Surface observations								Obs. H Obs. S	Upper-air				Re- marks
		00	03	06	09	12	15	18	21		00	06	12	18	
02049	GALLIVARE FLYGPLATS	.	.	.	.	.	.	.	.		.	.	.	.
02267	ORNSKOLDSVIK FLYGPLATS	.	.	.	.	.	.	.	.		.	.	.	.
02293	SKELLEFTEA FLYGPLATS	.	.	.	.	X	X	X	X		.	.	.	.
04260	FREDERIKSHAAB	X	X	.	.	X	X	X	X		.	.	.	.
08348	CIUDAD REAL	X	X	X	X	X	X	X	X						
10156	LUEBECK-BLANKENSEE	.	.	X	X	X	X	X	X	H05-21	.	.	.	.
10184	GREIFSWALD	X	X	X	X	X	X	X	X	H00-24	RW	RW	RW	RW	
10235	SOLTAU	.	.	X	X	X	X	X	X	H05-21	.	.	.	.
10325	BAD SALZUFLEN	.	.	X	X	X	X	X	X	H05-21	.	.	.	.
10365	GENTHIN	.	.	X	X	X	.	.	.						
10384	BERLIN-TEMPELHOF (UPPER-AIR STATION)	.	.	.	.	.	.	.	.				RW		
10444	GOETTINGEN	.	.	X	X	X	X	X	X	H05-21	.	.	.	.
10486	DRESDEN-WAHNSDORF	.	.	.	.	.	.	.	.			RW	W	RW	
10552	SCHMUECKE	.	.	X	X	X	X	X	X	H05-21	.	.	.	.
10742	OEHRINGEN	X	X	X	X	X	X	X	X	H00-24	.	.	.	.
10818	KLIPPENECK	.	.	X	X	X	X	X	X	H05-21	.	.	.	.
10908	FELDBERG/ SCHWARZWALD	X	X	X	X	X	X	X	X	H03-24	.	.	.	.
10980	WENDELSTEIN	X	X	X	X	X	X	X	X	H00-24	.	.	.	.
38613	DZALAL-ABAD	X	X	X	X	X	X	X	X		.	.	.	.
65361	SOKODE	X	X	X	X	X	X	X	X	H00-24	.	.	.	.
65387	LOME	X	X	X	X	X	X	X	X	H00-24	P	.	P	.	
68029	KASANE	.	X	X	X	X	X	X	.		.	.	.	.
93127	ROTOROA ISLAND	.	.	.	.	.	.	.	X		.	.	.	.
93149	ONEMANA	X	X	.	.	.	.	X	X		.	.	.	.

1.3 Changes to existing stations (cont.)

Index No.	Name	Surface observations								Obs. H Obs. S	Upper-air				Re- marks
		00	03	06	09	12	15	18	21		00	06	12	18	
93185	TAURANGA AERODROME	.	.	.	.	.	.	.	.	H19-06	.	.	.	.
93210	TE KUITI	X	X	.	.	.	.	.	X		.	.	.	.
93223	TAUMARUNUI AFFCO	.	.	X	X	X	X	.	.		.	.	.	.
93243	TAUPO AERODROME	X	X	.	.	.	.	.	X	H20-07	.	.	.	.
93246	ROTORUA AERODROME	.	.	.	.	.	.	.	.	H18-06	.	.	.	.
93291	GISBORNE AERODROME	.	.	.	.	.	.	.	.	H19-08	W	.	W	W	
93308	NEWPLYMOUTH AERO.	.	.	.	.	.	.	.	.	H17-07	W	.	W	W	
93332	TUROA MT RUAPEHU	.	07	.	.	.	.	.	.		.	.	.	.
93374	NAPIER HARBOUR	X	.	X	X	X	X	X	.		.	.	.	.
93383	MOHAKA	X	X	.	.	.	.	X	X		.	.	.	.
93401	OHAKEA	X	X	X	.	.	.	X	X		.	.	.	.
93460	WAIONE	X	.	X	.	.	.	X	X		.	.	.	.
93477	MARTINBOROUGH	X	.	.	.	.	.	X	X		.	.	.	.
93490	PORANGAHAU	.	.	X	.	.	.	X	X		.	.	.	.
93497	CASTLEPOINT	.	.	X	.	.	.	X	.		.	.	.	.
93516	WESTPORT HARBOUR	X	X	.	.	.	.	.	X		.	.	.	.
93545	NELSON AERODROME	X	.	X	.	.	.	X	X	H18-08	.	.	.	.
93561	STEPHENS ISLAND	X	.	X	.	.	.	X	X		.	.	.	.
93614	HOKITIKA AERODROME	.	.	.	.	.	.	.	.	H17-00	W	.	W	W	
93761	HORORATA	X	.	.	.	.	.	X	.		.	.	.	.
93830	QUEENSTOWN AERODR.	X	X	.	.	.	.	X	X	H19-06	.	.	.	.
93865	GORE	.	.	.	.	.	X	X	.		.	.	.	.
93890	DUNEDIN AERODROME	X	.	.	.	.	.	X	X	H00-18	.	.	.	.
93986	CHATHAM ISLAND									RW	.	.	.	.

1.5 Temporary changes

- Notification from Portugal:

As from 1 March 1992 the 0000 UTC upper-air observations were resumed at station 08579 LISBOA/GAGO COUTINHO. However, due to technical problems the transmission failed on March 1st, 2nd, 9th and 10th.

4. Automatic marine stations

4.1 Canada

Data from moored and drifting buoys are collected via geostationary and polar orbiting satellites respectively. Meteorological reports from moored buoys using FM 13-IX SHIP code are distributed on the GTS from the Direct Readout Station located in Vancouver, B.C. Reports from drifting buoys are received at the ARGOS Local User Terminals in Edmonton and Toronto and distributed on the GTS using the FM 18-IX DRIFTER code.

Legend - Observed or technical parameters

Column	Parameters	Column	Parameters
1	Wind direction and speed	5	Sea-surface temperature
2	Air temperature	6	Wave period and height
3	Air pressure	7	Wave spectra
4	Pressure tendency	8	Peak wind gust

4.1.1 *Moored Buoys*

- North-east Pacific Ocean:

WMO buoy Identifier	ARGOS Identifier	Position: 4 February 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
46004	07180	50°56'N	135°52'W	X	X	X	X	X	X	X	.
46036	07181	48°18'N	133°51'W	X	X	X	X	X	X	X	.
46145	08676	54°23'N	132°26'W	X	X	X	X	X	X	X	.
46181	07185	53°49'N	128°51'W	X	X	X	X	X	X	X	.
46183	07192	53°37'N	131°06'W	X	.	X	X	X	X	X	.
46184	07182	53°56'N	138°48'W	X	.	X	X	.	X	X	.
46185	07187	52°25'N	129°48'W	X	X	X	X	X	X	X	.
46204	07195	51°23'N	128°45'W	X	X	X	X	X	X	X	.
46205	07196	54°10'N	134°20'W	X	X	X	X	X	X	X	.
46206	07193	48°50'N	126°00'W	X	X	.	.	X	X	X	.
46207	08677	50°52'N	129°55'W	X	X	X	X	X	X	X	.
46208	07194	52°30'N	132°42'W	X	X	X	X	X	X	X	.

- North-west Atlantic Ocean:

WMO buoy Identifier	ARGOS Identifier	Position: 30 January 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
44131	03479	45°54'N	51°00'W	X	X	X	X	X	X	X	.
44137	05579	41°12'N	61°08'W	X	X	X	X	X	X	X	.
44138	05577	44°14'N	53°38'W	X	X	X	X	X	X	X	.
44139	03448	44°19'N	57°21'W	X	X	X	X	X	X	X	.
44140	05576	42°44'N	50°36'W	.	X	X	X	X	X	X	X
44141	03449	42°04'N	56°09'W	X	X	X	X	X	X	X	.
44142	05578	42°30'N	64°12'W	X	X	X	X	X	X	X	.
44143	03434	45°54'N	49°59'W	X	X	X	X	X	X	X	.

- Great Lakes:

WMO buoy Identifier	ARGOS Identifier	Position: 29 January 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
45135#	N/A	43°51'N	78°20'W	.	.	.	.	.	.	.	.
45137	N/A	45°20'N	80°02'W	X	X	X	X	.	.	.	.
45132#	N/A	42°06'N	83°05'W	X	X	X	X	.	.	.	.

4.1.2 *Drifting Buoys*

- North-east Pacific Ocean:

WMO buoy Identifier	ARGOS Identifier	Position: 29 January 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
46632	12511	40°42'N	129°54'W	.	X	X	X	X	.	.	X
46681	07135	56°06'N	152°48'W	.	X	X	X	X	.	.	X
46682	07136	45°12'N	151°36'W	.	X	X	X	X	.	.	X
46684	07137	44°12'N	145°42'W	.	X	.	.	X	.	.	X

Winter land station

4.1.2 Drifting Buoys (cont)

- North-east Pacific Ocean (cont.):

WMO buoy Identifier	ARGOS Identifier	Position: 29 January 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
46687	07138	31°36'N	149°24'W	.	X	X	X	X	.	.	X
46692	07139	48°54'N	133°12'W	.	.	X	X	X	.	.	X
46704	07128	37°48'N	127°54'W	.	X	X	X	X	.	.	X
46706	07130	31°12'N	135°06'W	.	X	X	X	X	.	.	X
46708	07132	51°30'N	149°24'W	.	X	X	X	X	.	.	X
46699	07146	50°36'N	156°54'W	.	X	X	X	X	.	.	X

- Arctic Icepack:

WMO buoy Identifier	ARGOS Identifier	Position: 4 February 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
NIL	-	-	-								

4.2 United States of America

List of U.S.A. Ocean Data Acquisition System (ODAS) included in the March 1992 Data Platform Status Report of the Data Buoy Centre of the National Oceanic and Atmospheric Administration (NOAA). Data from moored buoys and platforms are collected by geostationary meteorological satellites 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.

Legend - Observed or technical parameters

Column	Parameters	Column	Parameters
1	Wind direction and speed	5	Sea-surface temperature
2	Air temperature	6	Wave period and height
3	Air pressure	7	Wave spectra
4	Pressure tendency	8	Peak wind gust

4.2.1 Moored Buoys

WMO buoy Identifier	ARGOS Identifier	Position: 5-12 March 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
32302		18°00'S	85°06'W	X	X	X	X	X	X	X	X
41001**		34°54'N	73°00'W	X	X	X	X	X	X	X	X
41002**		32°18'N	75°12'W	*	*	*	*	*	*	*	*
41006**		29°18'N	77°24'W	X	X	X	X	X	X	X	X
41008		30°42'N	81°06'W	X	X	X	X	X	X	X	X
41009		28°30'N	80°12'W	X	X	X	X	X	X	X	X
41010		28°54'N	78°30'W	X	X	X	X	X	X	X	X
42001**		25°54'N	89°42'W	X	X	X	X	X	X	X	X
42002**		25°54'N	93°36'W	X	X	X	X	X	X	X	X
42003**		25°54'N	85°54'W	X	X	X	X	X	X	X	X
42007		30°06'N	88°48'W	X	X	*	X	X	.	.	.
42019		27°54'N	95°00'W	X	X	X	X	X	X	X	X

** Primarily for National Weather Service (NWS) support; however, all stations report data to NWS.

* Sensor / system failure.

4.2.1 Moored Buoys (cont.)

WMO buoy Identifier	ARGOS Identifier	Position: 5-12 March 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
42020		27°00'N	96°30'W	X	X	X	X	X	X	X	X
42025		24°54'N	80°24'W	.	X	.	X	X	X	X	X
44004**		38°30'N	70°42'W	X	X	X	X	X	X	X	X
44005**		42°36'N	68°36'W	X	X	X	X	X	X	X	X
44007**		43°30'N	70°06'W	*	*	*	*	*	*	*	*
44008**		40°30'N	69°24'W	X	X	X	X	X	X	X	X
44009**		38°24'N	74°42'W	X	X	X	X	X	X	X	X
44011**		41°06'N	66°36'W	*	*	*	*	*	*	*	*
44012**		38°48'N	74°36'W	X	X	X	X	X	X	X	X
44013**		42°24'N	70°48'W	X	X	X	X	X	X	X	X
44014		36°36'N	74°48'W	X	X	X	X	X	X	X	X
44025		40°18'N	73°12'W	X	X	X	X	X	X	X	X
45001**		48°00'N	87°48'W	X	X	X	X	X	X	X	X
45002**		45°18'N	86°24'W	*	X	X	X	X	X	X	X
45003**		45°18'N	82°42'W	X	X	X	X	X	X	X	X
45004**		47°30'N	86°30'W	*	*	*	*	*	*	*	*
45005**		41°42'N	82°24'W	X	X	X	X	X	X	X	X
45006**		47°18'N	89°54'W	X	X	X	X	X	X	X	X
45007**		42°42'N	87°06'W	X	X	X	X	X	X	X	X
45008**		44°18'N	82°24'W	X	X	X	X	X	X	X	X
46001**		56°18'N	148°18'W	X	X	X	X	X	X	X	X
46002**		42°30'N	130°18'W	X	X	X	X	X	X	X	X
46003**		51°54'N	155°54'W	.	X	X	X	X	X	X	X
46005**		46°06'N	131°00'W	X	X	X	X	X	X	X	X
46006**		40°48'N	137°42'W	*	*	*	*	*	*	*	*
46011		34°54'N	120°54'W	*	*	*	*	*	*	*	*
46012		37°24'N	122°42'W	X	X	X	X	X	X	X	X
46013		38°12'N	123°18'W	X	X	X	X	X	X	X	X
46014		39°12'N	124°00'W	*	*	*	*	*	*	*	*
46022		40°42'N	124°30'W	X	X	X	X	X	X	X	X
46023		34°18'N	120°42'W	X	X	X	X	X	X	X	X
46025		33°42'N	119°06'W	X	X	X	X	X	X	X	X
46026**		37°42'N	122°42'W	X	X	X	X	X	X	X	X
46027**		41°48'N	124°24'W	X	X	X	X	X	X	X	X
46028		35°48'N	121°54'W	*	*	*	*	*	*	*	*
46029**		46°12'N	124°12'W	X	X	X	X	X	X	X	X
46030		40°24'N	124°30'W	*	*	*	*	*	*	*	*
46035		57°00'N	177°42'W	X	X	X	X	X	X	X	X
46040		44°48'N	124°18'W	*	*	*	*	*	*	*	*
46041		47°24'N	124°30'W	X	X	X	X	X	X	X	X
46042		36°48'N	122°24'W	X	X	X	X	*	X	X	X
46045		33°48'N	118°24'W	X	X	X	X	X	X	X	X
46047		32°42'N	119°36'W	*	X	X	X	X	X	X	X
46048		32°54'N	117°54'W	X	X	X	X	X	X	X	X
46050		44°36'N	124°30'W	X	X	X	X	X	X	X	X
46051		34°30'N	120°42'W	.	.	.	.	.	.	.	.
51001**		23°24'N	162°18'W	X	X	X	X	X	X	X	X
51002**		17°12'N	157°48'W	X	X	X	X	*	X	X	X
51003**		19°18'N	160°48'W	X	X	X	X	X	X	X	X
51004**		17°24'N	152°30'W	X	X	X	X	X	X	X	X
52009		13°42'N	144°42'E	X	*	X	X	X	X	X	X

* Sensor / system failure.

** Primarily for National Weather Service (NWS) support; however, all stations report data to NWS.

4.2.2 Drifting Buoys

WMO buoy Identifier	ARGOS Identifier	Position: 11-12 March 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
16807	05133	52°S	095°E	.	X	X	.	X	.	.	.
16810	12309	51°S	022°E	.	X	X	.	X	.	.	.
17804	12300	27°S	099°E	.	*	X	.	X	.	.	.
17805	12304	20°S	070°E	.	*	X	.	X	.	.	.
17809	05125	35°S	058°E	.	X	X	.	X	.	.	.
17811	05569	41°S	022°E	.	*	X	.	X	.	.	.
17812	01981	56°S	013°E	.	X	X	.	X	.	.	.
17813	01978	51°S	019°E	.	X	X	.	X	.	.	.
17814	01968	47°S	019°E	.	X	X	.	X	.	.	.
17815	01965	39°S	010°E	.	X	X	.	X	.	.	.
17825	05129	37°S	068°E	.	X	X	.	X	.	.	.
33509	12307	39°S	025°E	.	X	X	.	X	.	.	.
33510	12308	42°S	075°E	.	X	X	.	X	.	.	.
33511	12302	44°S	022°W	.	X	X	.	X	.	.	.
33826	12296	56°S	111°E	.	X	X	.	X	.	.	.
33827	12297	45°S	150°E	.	X	X	.	X	.	.	.
33828	12298	31°S	095°E	.	X	X	.	X	.	.	.
33831	01967	43°S	008°W	.	X	X	.	X	.	.	.
53822	05132	09°S	117°E	.	X	X	.	X	.	.	.
54829	06762	34°S	140°W	.	*	X	.	X	.	.	.
54830	06763	38°S	093°W	.	*	X	.	X	.	.	.
54833	06586	44°S	136°W	X	X	X	.	X	.	X	X
54835	06731	37°S	136°W	.	X	X	.	X	.	.	.
54836	05128	34°S	154°W	.	X	X	.	X	.	.	.
54837	05135	26°S	163°W	.	X	X	.	X	.	.	.
54838	08823	43°S	143°W	.	X	X	.	X	.	.	.
54839	12312	39°S	137°W	.	X	X	.	X	.	.	.
54840	05120	53°S	122°W	.	X	X	.	X	.	.	.
54842	05122	49°S	143°W	.	X	X	.	X	.	.	.
54843	05134	47°S	125°W	.	X	X	.	X	.	.	.
54844	05123	49°S	121°W	.	X	X	.	X	.	.	.
54846	01969	50°S	173°W	.	.	.	.	.	.	.	.
55803	05136	53°S	088°W	.	X	X	.	X	.	.	.
56835	12291	27°S	086°E	.	X	X	.	X	.	.	.
56836	12293	29°S	098°E	.	X	X	.	X	.	.	.
56837	05116	06°S	107°E	.	*	X	.	*	.	.	.
56838	12294	18°S	082°E	.	X	X	.	X	.	.	.
56839	05124	26°S	087°E	.	X	X	.	X	.	.	.
56840	12292	54°S	075°E	.	X	X	.	X	.	.	.
74801	01980	74°S	041°W	.	X	X	.	*	.	.	.
74802	01983	68°S	012°W	.	X	X	.	X	.	.	.
74803	01966	60°S	004°E	.	X	X	.	X	.	.	.

* Sensor / system failure.

5. ARGOS service

5.1 ARGOS monthly status report

As at 2 March 1992 the ARGOS service was handling reports from 900 drifting buoys, 225 moored buoys, 2 balloons, 32 ships, 324 animal trackings, 411 fixed stations, 93 boats and 100 miscellaneous platforms. DRIFTER reports from 88 drifting buoys and BATHY reports from 25 selected ships were transmitted to the RTH Paris and DRIFTER reports from 396 drifting and moored buoys (including ATLAS Buoys) were transmitted to the WMC Washington for insertion into the GTS. The list of platforms reporting through ARGOS and distributed over the GTS follows:

Operating country	WMO Identifier/ Call sign	ARGOS Identifier	Operating country	WMO Identifier/ Call sign	ARGOS Identifier
Australia	55512	00416	Canada (continued)	46646	01186
	55513	00421		46647	01187
	55514	00413		46648	01188
	55515	00415		46649	01311
	55516	00417		46650	01424
	56001	04873		46651	01318
	56501	02934		46652	01319
	56502	02936		46655	01334
	56503	08035		46656	08090
	56504	08036		47554	02469
	56505	08037		47558	11249
	56506	04875		47559	04004
	56507	04876	France	13531	05832
	56508	04877		44601	10103
	56548	04871		62501	10115
	56549	04872		62502	10106
9VBZ	•	09194		62503	05834
9VUU	•	09190		62514	05831
9VWM	•	09191		64516	05796
GYRW	•	09197		C6HL	• 04709
GYSA	•	09189		DIDA	• 08742
GYSE	•	09199		ELEH	• 08747
S6FK	•	09193		ELIL	• 04719
VJBQ	•	09192		ELIS	• 04703
VJDP	•	09198		FITA	• 04734
Canada	21551	01333		FNCZ	• 08744
	21552	01315		FNED	• 08748
	21553	01332		FNGB	• 04733
	44682	01057		FNGS	• 04707
	44684	03321		FNZO	• 04717
	44685	10054		FNZP	• 04715
	44686	10056		FPYO	• 04729
	44755	03319		HPEW	• 04720
	44756	03320		ZDAZ	• 04714
	46643	01185		ZDBE	• 04718
	46644	01198			
	46645	01199			

• PTT's transmitting at irregular intervals

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier	Operating country	WMO Identifier/ Call sign	ARGOS Identifier
Germany	48601	11240	United States of America (continued)	13005	05141
	48602	11241		13901	14455
	48604	11243		13902	14456
	48605	11244		13903	14457
	48606	11245		13904	14445
	48607	11246		13905	14447
	71042	03317		13906	14460
	71524	03315		13907	14461
	71545	09353		13908	14462
	71546	09354		13909	14463
Netherlands	71547	09355		13911	14448
	71549	09361		13912	14449
	71550	09356		13913	14450
	71551	09357		13914	14452
	71553	09359		14464	14464
				14804	08845
	44761	06669		15103	15103
	64611	08521		15700	15700
	64612	08522		16807	05133
	64613	08523		16809	12314
New Zealand	64614	08524		16810	12309
				17804	12300
				17805	12304
				17809	05125
	55580	06439		17811	05569
	55582	07175		17812	01981
	55583	07179		17813	01978
	55584	07178		17814	01968
	55585	07177		17815	01965
	55586	07176		17825	05129
Norway	63531	03704		21524	12701
	65591	06666		21525	12711
	65592	03039		21530	14292
	65593	03038		21532	12696
				21533	12695
				21573	04648
South Africa**	14523	06730		21574	14290
	17522	14063		21575	14594
	17523	14065		21576	14595
	17525	14064		21577	14596
	17526	14067		21901	15537
	17536	14066		21902	15536
	33021	09087		22901	14980
				22902	14981
				22905	14972
United Kingdom	62805	06285		22906	14984
	62695	01250		23502	14661
	64043	06271		23503	14601
United States of America	11318	14356		23505	14598
	12505	14652		23507	14620
	12506	14619		23508	14593
	13003	01649		23510	14623

** The Government of the Republic of South Africa has been suspended by Resolution 38 (Cg-VII) from exercising its rights and enjoying its privileges as a Member of WMO.

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier	Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	23511	14624	United States of America (continued)	33510	12308
	25537	12805		33511	12302
	31502	09844		33826	12296
	31503	14284		33827	12297
	31504	14649		33828	12298
	32315	06380		33831	01967
	32316	06799		34901	15123
	32318	06478		34902	15125
	32439	15604		41501	14663
	32512	11920		41502	14664
	32513	11917		41506	14634
	32514	11948		41520	14643
	32515	15648		43001	06473
	32516	11927		43501	11919
	32517	15093		43502	11168
	32518	15091		43503	15656
	32519	11905		43504	11198
	32520	15649		43505	15657
	32521	15651		43506	15698
	32522	15598		43508	11171
	32523	10809		43512	14637
	32524	15695		43513	04645
	32525	11192		44514	04646
	32526	15696		44520	09856
	32527	15697		44553	11363
	32529	15028		44559	15138
	32530	15699		44560	15142
	32531	15011		46531	15618
	32532	11897		46532	15615
	32533	15017		46533	15619
	32534	15018		46534	15624
	32535	15025		46535	15607
	32536	15026		46536	15609
	32538	15602		46537	15612
	32540	11904		46538	15613
	32541	15595		46539	15622
	32542	15596		46540	15605
	32544	11908		46541	15643
	32546	11160		46542	15639
	32547	15597		46543	15642
	32548	15599		46544	15637
	32549	11163		46545	15640
	32551	15600		46546	15641
	32552	11195		46547	15070
	32553	15603		46548	15075
	32554	15601		46549	15076
	32555	15625		46550	01135
	32556	11934		46901	15655
	32557	15626		47553	11248
	32558	09276		48518	12800
	32559	15627		48520	12801
	33509	12307		48554	12802

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier	Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	48555	12806	United States of America (continued)	51829	11202
	48557	12808		51830	15088
	51006	06798		51833	11872
	51007	15814		51834	15124
	51008	06370		51835	09271
	51009	15811		51836	09270
	51010	06375		51837	15621
	51011	12529		51839	11700
	51014	06521		51840	15090
	51015	15813		51841	11950
	51016	15812		51842	11702
	51017	12527		51843	11703
	51018	15809		51844	09275
	51019	06475		51845	15107
	51020	06518		51846	11692
	51021	06369		51847	15027
	51023	06517		51849	15097
	51501	02050		51850	15608
	51502	02051		51853	15610
	51504	14648		51855	11705
	51506	14291		51856	15082
	51510	15042		51857	11667
	51511	15117		51858	15611
	51512	15089		51859	15606
	51513	11663		51861	15099
	51515	14432		51862	11670
	51516	11949		51863	15636
	51517	11676		51865	15638
	51518	15077		51866	15644
	51801	14433		51867	15645
	51803	15593		51868	11669
	51804	14434		51869	11674
	51805	15106		51870	11679
	51806	15635		51871	15646
	51807	15094		51872	11696
	51808	15647		51873	11699
	51809	14435		51874	11701
	51811	15653		51875	11704
	51812	15654		51876	11683
	51813	11924		51877	15073
	51814	11946		51878	15072
	51816	15616		51879	15074
	51817	15617		51880	15078
	51818	15110		51881	15080
	51819	15116		51882	15081
	51820	15122		51883	15083
	51821	11690		51884	15084
	51822	11870		51885	15086
	51823	15095		52001	12526
	51825	15620		52002	06476
	51827	11688		52003	12524
	51828	15015		52004	12528

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier	Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	52006	06519	United States of America (continued)	54836	05128
	52007	06797		54837	05135
	52010	06460		54838	08823
	52012	06471		54839	12312
	52302	12525		54840	05120
	52506	15031		54842	05122
	52507	15037		54843	05134
	52508	15104		54844	05123
	52509	15109		54846	01969
	52510	11939		54901	15049
	52511	11943		54902	15115
	52512	15023		54903	15118
	52513	15661		54904	15020
	52514	15040		54905	15024
	52515	15041		54906	15032
	52517	15108		54907	15044
	52518	15114		54908	15129
	52520	15121		54909	15120
	52616	15021		54910	15033
	52801	15035		54911	15036
	52802	11944		54912	15101
	52803	15029		54913	15112
	52804	15051		54914	15119
	52805	15012		54916	15630
	52807	09278		54917	15631
	52808	15014		54918	15632
	52809	15016		54919	15634
	52810	15701		54920	15633
	52811	15111		55803	05136
	52812	15126		56835	12991
	52814	15659		56836	12293
	52815	15660		56837	05116
	52816	15664		56838	12294
	52817	15665		56839	05124
	52818	15670		56840	12292
	52826	15668		61523	14589
	52866	11887		61524	14614
	52868	11876		61525	14662
	52872	11890		61526	14631
	52877	11883		61527	14635
	53801	11940		61528	13654
	53802	14965		61529	14617
	53804	14979		61530	14633
	53806	14991		61531	14656
	53807	11941		61532	01724
	53808	11942		71561	01430
	53809	11886		71562	01431
	53822	05132		71563	01432
	54829	06762		71564	01433
	54830	06763		74801	01980
	54833	06586		74802	01983
	54835	06731		74803	01966

5.2 TOGA programme

List of buoys operated by France from which reports were transmitted into the GTS by the Centre for Marine Meteorology of Météo-France during March 1992, under the following abbreviated headings:

SSVX51 LFPW North Atlantic
SSVX55 LFPW Equatorial Pacific

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
France	51890	01620
	51891	01621
	51898	12093
	52881	01626
	52882	06650
	52883	06651
	62501	10115
	62505	14412
	62506	10119

7. Feed-back from Members to the Secretariat on any changes in the observing network

In view of the difficulties experienced at present in identifying non-implemented observing stations or implemented stations which are closed or suspended for a certain period, or stations making observations but not reaching their NMCs, the ninth session of the CBS Advisory Working Group recommended that a special table be added to the WWW monthly operational letter to 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.

The special table, accompanied by explanatory notes overleaf, is attached as an appendix to this annex. Members are urged to fill in this appendix, as and when appropriate, and to return it to the Secretariat before the 1st of each month to enable changes to be included in the next monthly letter.

D. Information on operational status of space sub-system

At 1200 UTC on 12 February 1992, NESDIS begin deriving GOES-7 SATOB winds, which are distributed from Washington on the GTS, using a new automated procedure that included assigning pressure altitude based on VAS radiance measurements and the objective analysis assimilation with the NWS numerical forecasts. The new technique provides a significantly greater number of wind measurements at the mid-level altitudes, along with increase measurements at the higher altitudes. The new wind procedure was extensively evaluated by NESDIS and the National Meteorological Center (NMC). The SATOB winds will be screened by both objective and manual quality control. This procedure replaces the manual tracking with infrared histogram pressure altitude assignment and manual quality control practiced heretofore.

Feed-back from Members to the Secretariat on any changes in the observing network

(Explanatory Notes overleaf)

Global Exchange / Regional Exchange (delete as appropriate)

Country: _____

Station index number	Bulletin identification TTAAii CCCC	Implementation of observing programme								Alternate observing station	Remarks
		00	03	06	09	12	15	18	21		

1. SYNOP**2. TEMP****3. PILOT**

**Explanatory notes for
Feed-back
from Members to the Secretariat
on any changes in the observing network**

1. 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 given in Attachment I-4 of the Manual on the GTS, Volume I for global exchange and, as applicable, Attachments AF-I, AI-1, SA-1, NA-1, PS-1 and EU-1 of the Manual on the GTS, Volume II for regional exchange.
2. For entries in these tables, the following should be taken into account:
 - (a) In the column "Station index number", the index number (IIii) of each station should be entered in case of any changes in the observing programmes of the stations;
 - (b) In the column "Bulletin identification", the TTAii CCCC of the abbreviated heading of the meteorological bulletins which contains reports from the station should be inserted;
 - (c) In the column "Implementation of observing programme", "X" for implementation and "-" for non-implementation should be inserted as appropriate. In order to easily identify changes in the programme, this should be marked in red;
 - (d) In the column "Alternate observing station", the index number (IIii) of an alternate observing station should be inserted in case another station is available with a view to filling gaps which are caused by suspension of observing programmes of the original station;
 - (e) The required information concerning the observing programme of the alternate station should be inserted in the next horizontal line of the original station;
 - (f) In the column "Remarks", reasons of 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.
3. These tables should be sent to the Secretariat before the 1st of the month for inclusion of the changes in the monthly operational letter, as appropriate.

ANNEX II - Global Data-processing System

Date: March 1992

A. GDPS regulatory or guidance material

- *Generation and Exchange of Status Messages (see also Annex III)*

1. At its first session (Geneva, 1990) the CBS Working Group on Data Management further developed the Distributed Databases Concept. In the framework of this concept the working group decided to initiate the generation and exchange of status information of NWP centres on a trial basis. CBS-Ext.(90) welcomed and supported this trial which should also investigate which data representation form should best be used for the information exchange. Although a "plain-language-message" form was seen necessary for non- or less automated centres, it is quite ill-suited for computer processing and could create problems with language barriers. In this respect the use of BUFR or BTAB might be a promising approach.
2. The working group agreed to concentrate, for the purpose of a practical demonstration, on status messages containing information about delays or non-availability of products from NWP centres. There are a variety of circumstances which might trigger status messages, e.g.:
 - (a) A delay in the NWP production process caused by a serious data deficiency or a system failure in the data processing component;
 - (b) An emergency, such as a failure of the environmental control, fire, flood, etc.;
 - (c) A planned outage.
3. Again, for the purpose of a practical demonstration, the working group considered it best to focus on one aspect, namely (a) delays to the NWP process, and to include (b) and (c) to the extent possible. It was also decided that the delay be at least one hour in order to trigger a status message.
4. It is not feasible to issue a message in respect of each and every product in a set from a particular NWP run. Experience suggests that one product in the set should be selected as representative of the whole, or alternatively a statement concerning the delay of a model that produces the product. It would then be up to recipients to infer the delay to other products in the same set. The transmissions out of sequence of delayed products across the GTS may also add further delay at intermediate nodes; the originating NWP centre can only indicate the delay at the source. The expected length of the delay should also be contained in the status message.
5. It was agreed that Washington, Moscow, Bracknell and ECMWF (plus any other NWP centre which wishes to participate) would start to issue such status messages. Meanwhile Hong Kong, Melbourne, Prague, and Tokyo have joined and Beijing has expressed its intention to join later. The details (e.g. of which model run, etc.) must be left to their judgement. The messages are either in BTAB (with explanations given below) or plain language, at the choice of the originating centre.
6. The abbreviated bulletin heading NPXX10 CCCC YYGGgg should be used, with YYGGgg giving date/time of the origin of the message. For a BTAB message this will be followed by the BTAB identifier.

Example of a BTAB message:

```

NPXX10 EGRR 100115
BTAB A020
TYEA TTAII CCCC TD T1 T2 XT T1PD2
1990 XXXXXX EGRR 10 02 15 04 //150
7777

```

Meaning:

The product XXXXXX, normally disseminated by EGRR on the 10th at 0215 UTC, will be delayed by 2 hours and 30 minutes.

Where:

A020	reference to FM 94-BUFR table A
TYEA	defines the year
TTAII	defines a representative product
CCCC	defines the 4-letter indicator of the originating centre
TD	defines days) of the schedules
T1	defines hours) time of the
T2	defines minutes) dissemination
XT	defines time significance (derived from BUFR table B and associated code table 08 021 with 04 being selected to indicate an estimated delay in time)
T1PD2	defines estimated displacement in time in minutes (selected for this example) T1PDD defining displacement in time in days T1PD1 defining displacement in time in hours

Example of a plain-language message:

NPXX10 CCCC YYGGgg

The [name of centre] is experiencing problems in the production of the [name of model] model. The problem is believed to be [.....].

The [name of the model], which is normally scheduled to run at [time] UTC, is now delayed until [time] UTC.

7. The trial commenced on 1 December 1990 and more than 150 status messages have since been exchanged. Meanwhile, the Joint Implementation Co-ordination Meeting on the MTN/GTS and Data Management (Geneva, April 1991) and the RA III/IV (Washington, D.C., June 1991) and the RA VI (Reading, U.K., October 1991) Implementation Co-ordination Meetings on WWW Data Management reviewed the trial. These meetings concluded that the purpose to provide timely information on problems at GDPS centres in a concise and efficient way is achievable through this procedure. There was consent at these meetings that the information exchanged is useful to the operators in WWW centres and that the number of participating centres should be increased, if possible. Hence, other WWW centres are invited and encouraged to participate in this trial.

Annex III - Global Telecommunication System

Date: March 1992

C. Information on the operation of the GTS

1. Catalogue of Meteorological Bulletins (Publication No. 9, Volume C, Chapter I)

1.5 Bulletins for oceanographic data

- France: GTS Bulletin Headers used for GTS distribution of Drifting Buoy data

Reports in code DRIFTER from meteorological and oceanographic buoys are being transmitted from the Centre for Marine Meteorology of Météo-France, Brest into the GTS in the following meteorological bulletins:

Bulletins are routed to the Service Central d'Exploitation de la Météorologie (SCEM) of Météo-France, Toulouse and actually distributed globally from this source.

T ₁ T ₂ A ₁ A ₂ ii	Approximate region or programme
SSVX51 LFPW SSVX55 LFPW	North Atlantic. Equatorial Pacific

E. Status report on WWW implementation

- Exchange of Status Messages (see also Annex II)

Some GDPS centres issue status messages relating to delays to their numerical weather prediction process on a trial basis since 1 December 1991. The abbreviated headings are as follows:

ORIGINATING CENTRE:	ABBREVIATED HEADING:
WMC MELBOURNE	NPXX10 AMMC YYGGgg
RSMC TOKYO	NPXX10 RJTD YYGGgg
WMC MOSCOW	NPXX10 RUMS YYGGgg
WMC WASHINGTON	NPXX10 KWBC YYGGgg
RSMC BEIJING	NPXX10 BABJ YYGGgg
RSMC BRACKNELL	NPXX10 EGRR YYGGgg
RSMC ECMWF	NPXX10 ECMF YYGGgg
NMC HONG KONG	NPXX10 VHII YYGGgg
RTH PRAGUE	NPXX10 OKPR YYGGgg

RTHs are requested to update their routeing directories with a view to making routeing arrangements for the status information messages congruent with those for the processed information issued by the respective GDPS centres.

Annex IV - Codes

Date: March 1992

B. Manual on Codes

1. Global practices

- *Notification from Ireland*

Due to technical reasons, the Irish Meteorological Service will be unable to implement regulation 12.2.4 for group 3P_oP_oP_oP_o in FM 12-IX Ext. SYNOP, until the second half of 1992.

- *Notification from France:*

The modifications to codes FM 35-IX Ext. TEMP and FM 36-IX Ext. TEMP SHIP, which were to be implemented on 1 November 1991, occurred during the month of March 1992 for French stations in Regional Association VI (identification starting by 07). They will be implemented during the months of March or April 1992 for French stations in RA III, IV and V and on ships equipped with system SARE. For RA I stations (61996 Amsterdam Islands and 61998 Kerguelen Island) and for Antarctic station 89642 Dumont D'Urville, modifications will be applied progressively when the new software will be delivered during the second half of 1992.

2. Regional practices

2.3 *Changes to codes*

According to the adoption of the 925 hPa as a standard isobaric surface as per revised Regulation 35.2.2.1 of FM 35-IX Ext. TEMP, the regional regulations relating to the 925 hPa level have been superseded since 1 November 1991. The consequential updates to Volume II of the Manual on Codes are as follows:

Manual on Codes
Volume II
REGIONAL CODES
AND
NATIONAL CODING PRACTICES

REGION I, page II-1-A-6 in regulation 1/35.1 delete the entry
"92h9h9h9 T₉T₉T_{a9}D₉D₉ d₉d₉f₉f₉f₉" :

FM 35-IX Ext. TEMP and FM 36-IX Ext. TEMP SHIP

1/35.1 *Part B, Section 9*
Section 9 shall be used in the Region in the following form:
51515 77h7h7h7 T₇T₇T_{a7}D₇D₇ d₇d₇f₇f₇f₇
60h6h6h6 T₆T₆T_{a6}D₆D₆ d₆d₆f₆f₆f₆

2.3 Changes to codes (cont.)

REGION II, page II-2-A-7: delete regulation 2/35.2 and renumber regulation 2/35.3 as 2/35.2:

FM 35-IX TEMP and FM 36-IX TEMP SHIP

2/35.1 Part A, Section 4

The inclusion of group 4vbvbvava shall be left to national decision. However, Members are recommended to include this group in reports as often as possible.

2/35.2 Requirements for international exchange

Parts A, B, C and D shall all be included in international exchanges.

REGION III, page II-3-A-6: delete regulations 3/35.1.1 to 3/35.1.3 and include the text of regulation 3/35.2 as part of regulation 3/35.1:

FM 35-IX TEMP, FM 36-IX TEMP SHIP and FM 37-VII TEMP DROP

3/35.1 Part B, Section 9

Requirements for international exchange

Parts A, B, C and D shall all be included in international exchanges.

REGION V, page II-5-A-5, delete regulations 5/35.1.1 to 5/35.1.3 and include the text of regulation 5/35.2 as part of regulation 5/35.1:

FM 35-IX TEMP, FM 36-IX TEMP SHIP and FM 37-VII TEMP DROP

5/35.1 Part B, Section 9

Requirements for international exchange

Parts A, B, C and D shall all be included in international exchanges.

ANTARCTIC, page II-7-A-6, delete regulations 7/35.1.1 to 7/35.1.3 and include text of regulation 7/35.2 as part of regulation 7/35.1:

FM 35-IX TEMP, FM 36-IX TEMP SHIP and FM 37-VII TEMP DROP

7/35.1 Part B, Section 9

Requirements for international exchange

Parts A, B, C and D shall all be included in international exchanges and in exchanges within the Antarctic

Delete specifications of symbolic letters related to 925hPa as follows for Regions: I, II, III, V, VI and ANTARCTIC:

D₉D₉

d₉d₉

f₉f₉f₉

h₉h₉h₉

T_a₉

T₉T₉

3. National practices

3.3 Changes to codes or procedures

**Manual on Codes
Volume II
REGIONAL CODES
AND
NATIONAL CODING PRACTICES**

AUSTRALIA, page II-5-E-4, replace "Note on hours of observation" by the following text:

FM 32-IX PILOT

AUSTRALIA

Note on hours of observation:

During SUMMER TIME, Australian standard times for upper wind synoptic observations are 0500, 1100, 1700 and 2300 UTC. These standard times apply in all Australian states and at island stations operated by Australia, but they do not apply to Australian Antarctic stations.

WMO standard times of 0000, 0600, 1200 and 1800 UTC apply in all Australian states and island stations operated by Australia, at all other times, except in Western Australia, where 1700 UTC flights will replace 1800 UTC flights throughout the year.

The Western Australian stations involved are:

94203	Broome	94212	Halls Creek
94300	Carnarvon	94302	Learmonth
94312	Port Hedland	94403	Geraldton
94430	Meekatharra	94610	Perth
94637	Kalgoorlie	94638	Esperance
94646	Forrest	94802	Albany

ANNEX V - Marine Meteorological Services (MMS) and related oceanographic activities

Date: March 1992

C. Information on the operation of Marine Meteorological Services

2. Marine meteorological services available for main ports (Publication No. 9, Volume D, Part C₁)

- ***France - Port Meteorological Officers:***

Page D-C₁-VI-4, amend entry for (5) and (6) to read:

FRANCE - FRANCE (28.II.1992)

(1)	(2)	(3)
Bordeaux	Capitainerie du Port, 110 bis, quai des Chartrans	56.90.91.21
(4)	Storm warnings, analyses and forecasts for 24 hours for South and North Gascogne. / Avis de tempête, analyse et prévisions à 24 heures pour le Sud et Nord Gascogne.	
(5)	Squall warnings and forecasts to harbour master for dissemination to services at the port and for display; specific assistance to port works and activities; telephone responses for forecasts of coastal area from Les Sables d'Olonne to the Spanish border (36.65.08.08). / Avis de coup de vent et prévisions à la Capitainerie pour diffusion et affichage aux services du port; assistance spécifique pour tous travaux et études portuaires; répondeur téléphonique pour les prévisions pour la zone côtière des Sables d'Olonne à la frontière espagnole (36.65.08.08).	
(6)	For forecasts, warnings and other weather information contact the South-West Interregional Meteorological Service cidex Airport - Nr. 52 33700 MERIGNAC (56.34.20.11 - 56.34.36.05). / Pour les prévisions, les avis et autres renseignements météorologiques contacter le Service météorologique interrégional du Sud-Ouest cidex Aéroport - Nr. 52 33700 MERIGNAC (56.34.20.11 - 56.34.36.05).	

Page D-C₁-VI-4, amend entry for (2) and (3) to read:

(1)	(2)	(3)
Boulogne-sur-mer	Centre Départemental de la Météorologie Nausicaa 17, Bvd Ste Beuve 62200 BOULOGNE-SUR-MER	21.33.24.25

2. Marine meteorological services available for main ports (Publication No. 9, Volume D, Part C1) (cont.)

Page D-C1-VI-5, amend entry for (3) and (5) to read:

(1)	(2)	(3)
Brest	Bureau météorologique, Direction du Port 16, quai de la Douane	98.44.60.21
(4) Storm warnings and forecasts for English Channel, West Irish Sea and adjoining areas. / Avis de tempête et prévisions pour Manche, mer d'Irlande Ouest et zones adjacentes.		
(5) Off-shore forecasts and warnings for strong winds to maritime agencies, towing operations, Chamber of Commerce, naval docks; warnings and forecasts to harbour master for dissemination display and signals; telephonic responses for forecasts of coastal area from Aberwrach to Pointe du Raz (36.65.08.29). / Prévisions pour le large et avis de vent fort aux agences maritimes, remorquage, Chambre de Commerce, chantier naval. Avis de coup de vent et prévisions pour le large à la Capitainerie du port pour diffusion affichage et signalisation; répondeur téléphonique pour les prévisions pour la zone côtière des côtes d'Aberwrach à la Pointe du Raz (36.65.08.29).		
(6) For forecasts, warnings and other weather information contact the harbour master or the Meteorological Office, 16, Quai de la Douane. / Pour les prévisions, les avis et autres renseignements météorologiques contacter la Capitainerie ou le Bureau météorologique, 16, Quai de la Douane .		

Page D-C1-VI-5, amend entry for (3) to read:

(1)	(2)	(3)
La Rochelle	Station météorologique, Le Bout Blanc	46.50.62.32

Page D-C1-VI-6, amend entry for (2), (3) and (5) to read:

(1)	(2)	(3)
Rouen	Centre Départemental de la Météorologie, Aérodrome de Rouen-Boos	35.79.41.45
(4) Storm warnings, coastal and off-shore; forecasts valid for 24 to 48 hours twice daily. / Avis de tempête pour la zone côtière et le large; prévisions bi-quotidiennes valables de 24 à 48 heures.		
(5) Provision of forecasts to harbour master for dissemination to services at port and display; specific assistance to all kinds of port activities (36.65.08.08). / Fourniture de prévisions à la Capitainerie pour diffusion et affichage aux services du port; assistance pour toutes activités portuaires (36.65.08.08).		
(6) For warnings, forecasts and other weather information contact the harbour master or the Meteorological Office. / Pour les avis, les prévisions et autres renseignements météorologiques contacter la Capitainerie ou le Bureau météorologique.		

2. **Marine meteorological services available for main ports (Publication No. 9, Volume D, Part C₁) (cont.)**

Page D-C₁-VI-7, amend entry for (2), (3) and (5) to read:

(1)	(2)	(3)
Toulon	Centre Départemental de la Météorologie, 449, Avenue de la Mitre Mourillon	94.36.01.15, 94.41.45.49
(4)	Storm warnings and forecasts for Western Mediterranean Sea. / Avis de tempête et prévisions pour la méditerranée occidentale.	
(5)	Storm warnings to harbour master for dissemination to port services at port, display and signals; telephone responses for marine forecasts for the coastal area from Marseille to Cannes (36.65.02.83). / Avis de tempête à la Capitainerie pour diffusion, signalisation et affichage aux services du port; répondeur téléphonique pour prévisions pour la zone côtière de Marseille à Cannes (36.65.02.83).	
(6)	For warnings, forecasts and other weather information contact the Meteorological Office. / Pour les avis, les prévisions et autres renseignements météorologiques contacter le Bureau météorologique.	