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W/OIS

GENEVA, 31 July 1992

Annexes: 4

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

B. Changes in global or regional components of WWW plan

1. Basic synoptic networks

1.3 Changes to existing stations

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 Hydrometeorological Services) of Members of WMO (PR-4767)
Directors of Meteorological Services of non-Member countries (MC-2468)
Presidents and Vice-Presidents of Regional Associations (P.RA-1296)
Presidents and Vice-Presidents of Technical Commissions (P.TC-1413)
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

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

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)

1.1 New bulletins
1.5 Bulletins for oceanographic data

2. Transmission schedules (Publication No. 9, Volume C, Chapter II)

2.1 New transmissions/broadcasts
2.3 Changes in schedules/technical specifications

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

C. **Information on the operation of Marine Meteorological Services**

1. Broadcasts for shipping and other marine activities (Publication No. 9, Volume D, Part A)

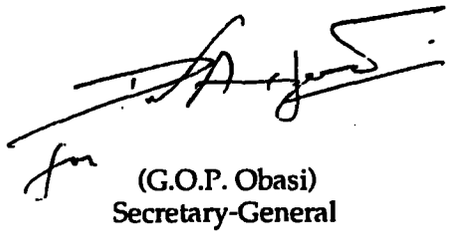
1.3 Changes in schedules/technical specifications

2. Marine meteorological services available for main ports (Publication No.9, Volume D, Part C_1)

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: July 1992

B. Changes in global or regional components of WWW plan

1. Basic synoptic networks

1.3 Changes to existing stations

- ***Region II***

42080 BILASPUR to be replaced by 42111 DEHRADUN

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 HP	Elevation H/HA	Pressure Level	Surface observations 00	03	06	09	12	15	18	21	Obs. H Obs. S	Upper-air 00	06	12	18	Remarks
06022	THYRA EAST	55° 43 'N	04 ° 48 'E	75	75		.	.	.	.	.	.	.	.		.	.	.	.	
60353	JIJEL PORT	36° 50 'N	05° 47 'E	2	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60354	EL MILIA	36° 44 'N	54° 'E 31	31	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60369	ALGER PORT	36° 46 'N	03° 06 'E	8	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60387	DELLYS	36° 55 'N	03° 57 'E	12	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60403	GUELMA	36° 28 'N	07° 28 'E	227	-		X	X	X	X	X	X	X	.	H00-24	.	.	.	.	
60417	BOUIRA	36° 23 'N	03° 54 'E	635	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60421	OUM EL BOUAGHI	35° 53 'N	07° 07 'E	889	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60456	MOSTAGANEM PORT	35° 48 'N	00° 05 'E	210	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60461	ORAN PORT	35° 42 'N	00° 39 'W	22	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60471	BARIKA	35° 20 'N	05° 20 'E	460	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60476	KHENCHELLA	35° 25 'N	07° 09 'E	1116	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60478	ARIS	35° 15 'N	06° 21 'E	1240	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60481	ORAN TAFARAOUI	35° 29 'N	00° 31 'W	111	-		X	X	X	X	X	X	X	.	H00-24	.	.	.	.	
60514	KSAR CHELLALA	35° 10 'N	02° 19 'E	800	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60517	GHAZAOUET	35° 06 'N	01° 52 'W	83	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60520	SIDI BEL ABBES	35° 11 'N	02° 37 'W	450	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60536	SAIDA	34° 52 'N	00° 09 'E	750	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60557	NAAMA	33° 16 'N	00° 18 'W	1166																
60686	BORDJ B. MOKHTAR	21° 20 'N	00° 57 'E	398	-		.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
68040	LETLHAKANE	21° 25 'S	25° 36 'E		- 985		X	X	.	X	X	X	X	X		.	.	.	.	

1.2 Deleted stations

Index No.	Name
06028	GORMFELT
08071	PALENCIA
08091	JACA
08096	CANDANCHU
08176	TARRAGONA
08182	MONTSENY
08290	ALCIRA
08303	SIERRA ALFABIA
08307	POLLENSA
08361	AITANA
08390	SEVILLA/TABLADA
08490	ALBORAN

1.3 Changes to existing stations

Index No.	Name	Surface observations								Obs. H Obs. S	Upper-air				Remarks
		00	03	06	09	12	15	18	21		00	06	12	18	
08433	MURCIA/SAN JAVIER	.	.	X	X	X	X	X	X		.	.	.	.	
60395	TIZI OUZOU	.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60410	TENES	.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60423	SOUK AHRAS	.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60437	MEDEA	.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60452	ARZEW	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	
60457	MOSTAGANEM VILLE	.	.	X	X	X	X	X	.	H06-18	.	.	.	.	
60506	MASCARA METMORE	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	
60507	MASCARA GHRISS	.	.	.	08	11	.	17	.		.	.	.	.	

1.5 Temporary changes

- ***Notification from Mozambique***

  As from 13 April 1992 the 1200 UTC radiosonde/radiowind observations were resumed at station 67341 MAPUTO/MAVALANE

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 Canada (continued)

4.1.1 Moored Buoys

- North-east Pacific Ocean:

WMO buoy Identifier	ARGOS Identifier	Position: 2 June1992		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	.
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	.
46036	05324	48°18'N	133°51'W	X	X	X	X	X	X	X	.
46146	08678	49°20'N	123°44'W	X	X	X	X	X	X	X	.

- North-west Atlantic Ocean:

WMO buoy Identifier	ARGOS Identifier	Position: 22 June 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
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	.
44141	03449	42°04'N	56°09'W	X	.	X	X	X	X	X	.
44142	05578	42°30'N	64°12'W	X	X	X	X	X	X	X	.

- Great Lakes:

WMO buoy Identifier	ARGOS Identifier	Position: 2 June 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
45135	N/A	43°47'N	76°53'W	X	X	X	X	X	X	X	.
45137	N/A	45°33'N	81°01'W	X	X	X	X	X	X	X	.
45132	N/A	42°28'N	81°13'W	X	X	X	X	X	X	X	.
45139	N/A	45°16'N	79°33'W	X	X	X	X	X	X	X	.
45136	03477	48°33'N	86°57'W	X	X	X	X	X	X	X	.
45138	08249	49°33'N	65°45'W	X	X	X	X	X	X	X	.

- North-east Pacific Ocean:

WMO buoy Identifier	ARGOS Identifier	Position: 2 June 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
46632	12511	86°24'N	127°00'W	.	X	X	X	X	.	.	X
46633	12512	48°24'N	160°54'W	.	X	X	X	X	.	.	X
46640	12519	49°42'N	170°54'W	.	X	X	X	X	.	.	X
46681	07135	51°18'N	167°24'W	.	X	X	X	X	.	.	X
46682	07136	44°00'N	148°30'W	.	X	X	X	X	.	.	X
46684	07137	42°54'N	142°24'W	.	X	.	.	X	.	.	X
46687	07138	32°00'N	145°00'W	.	X	X	X	X	.	.	X
46704	07128	39°42'N	130°30'W	.	X	X	X	X	.	.	X
46706	07130	28°42'N	133°12'W	.	X	X	X	X	.	.	X
46708	07132	50°30'N	146°12'W	.	X	X	X	X	.	.	X
46699	07146	52°18'N	151°30'W	.	X	X	X	X	.	.	X

4.1 Canada (continued)

4.1.2 Drifting Buoys (continued)

- Arctic Icepack:

WMO buoy Identifier	ARGOS Identifier	Position: 20 May1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
48523	01107	73°30'N	154°36'W	.	X	X	.	.	.	.	.
48566	01836	72°36'N	142°24'W	X	X	X	.	.	.	.	.
48567	01837	73°18'N	150°00'W	X	X	X	.	.	.	.	.
48568	07100	74°00'N	143°36'W	X	X	X	.	.	.	.	.
48569	07101	71°48'N	149°06'W	X	X	X	.	.	.	.	.
48571	07103	71°00'N	166°18'W	X	X	X	.	.	.	.	.

4.2 United States of America

List of U.S.A. Ocean Data Acquisition System (ODAS) included in the June 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: 25 June-2 July 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	
41001**		34°54'N	73°00'W	X	X	X	X	X	X	X	
41002**		32°18'N	75°12'W	X	X	X	X	X	X	X	
41004		32°15'N	79°06'W	X	X	X	X	X	X	X	
41006**		29°18'N	77°24'W	X	X	X	X	X	X	X	
41009		28°30'N	80°12'W	X	X	X	X	X	X	X	
41010		28°54'N	78°30'W	X	X	X	X	X	X	X	
41016		24°36'N	76°30'W	X	X	X	X	X	.	.	
42001**		25°54'N	89°42'W	X	X	X	X	X	X	X	
42002**		25°54'N	93°36'W	X	X	X	X	X	X	X	
42003**		25°54'N	85°54'W	X	X	X	X	X	X	X	
42007		30°06'N	88°48'W	X	X	X	X	X	.	.	
42019		27°54'N	95°00'W	X	X	X	X	X	X	X	
42020		27°00'N	96°30'W	X	X	X	X	X	X	X	
42025		24°54'N	80°24'W	.	*	.	X	X	X	X	
44004**		38°30'N	70°42'W	X	X	X	X	X	X	X	
44005**		42°36'N	68°36'W	X	X	X	X	X	X	X	
44007**		43°30'N	70°06'W	X	X	X	X	X	X	X	
44008**		40°30'N	69°24'W	X	X	X	X	X	X	X	
44009**		38°24'N	74°42'W	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 United States of America (continued)

4.2.1 Moored Buoys (continued)

WMO buoy Identifier	ARGOS Identifier	Position: 25 June-2 July 1992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
44011**		41°06'N	66°36'W	X	X	X	X	X	X	X	
44012**		38°48'N	74°36'W	X	X	X	X	X	X	X	
44013**		42°24'N	70°48'W	X	X	X	X	X	X	X	
44014		36°36'N	74°48'W	X	X	X	X	*	X	X	
44025		40°18'N	73°12'W	X	X	X	X	X	X	X	
45001**		48°00'N	87°48'W	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	
45004**		47°30'N	86°30'W	X	X	X	X	X	X	X	
45005**		41°42'N	82°24'W	X	X	X	X	X	X	X	
45006**		47°18'N	89°54'W	X	X	X	X	X	X	X	
45007**		42°42'N	87°06'W	X	X	X	X	X	X	X	
45008**		44°18'N	82°24'W	X	X	X	X	X	X	X	
46001**		56°18'N	148°18'W	X	X	X	X	X	X	X	
46002**		42°30'N	130°18'W	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	
46006**		40°54'N	137°30'W	X	X	X	X	X	X	X	
46011		34°54'N	120°54'W	X	X	X	X	X	X	X	
46012		37°24'N	122°42'W	X	X	X	X	X	X	X	
46013		38°12'N	123°18'W	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	
46023		34°18'N	120°42'W	X	X	X	X	X	X	X	
46025		33°42'N	119°06'W	X	X	X	X	X	X	X	
46026**		37°42'N	122°42'W	X	X	X	X	X	X	X	
46027**		41°48'N	124°24'W	*	X	X	X	X	X	X	
46028		35°48'N	121°54'W	X	X	X	X	X	X	X	
46029**		46°12'N	124°12'W	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	
46040		44°48'N	124°18'W	*	*	*	*	*	*	*	
46041		47°24'N	124°30'W	X	X	X	X	X	X	X	
46042		36°48'N	122°24'W	X	X	X	X	*	X	X	
46045		33°48'N	118°24'W	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	
46050		44°36'N	124°30'W	X	X	X	X	X	X	X	
46051		34°30'N	120°42'W	X	X	X	X	X	X	X	
51001**		23°24'N	162°18'W	X	X	X	X	X	X	X	
51002**		17°12'N	157°48'W	X	X	X	X	*	X	X	
51003**		19°18'N	160°48'W	X	X	X	X	X	X	X	
51004**		17°24'N	152°30'W	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 United States of America (continued)

4.2.2 Drifting Buoys

WMO buoy Identifier	ARGOS Identifier	Position: 1-2 July 992		Observed or technical parameters							
		Latitude	Longitude	1	2	3	4	5	6	7	8
16807	05133	57°S	130°E	.	X	X	.	X	.	.	.
16810	12309	56°S	056°E	.	X	X	.	X	.	.	.
17804	12300	26°S	090°E	.	*	X	.	X	.	.	.
17805	12304	19°S	062°E	.	*	X	.	X	.	.	.
17809	05125	32°S	057°E	.	X	X	.	X	.	.	.
17814	01968	49°S	060°E	.	X	X	.	X	.	.	.
17825	05129	33°S	073°E	.	X	X	.	X	.	.	.
33509	12307	40°S	056°E	.	X	X	.	X	.	.	.
33510	12308	38°S	095°E	.	X	X	.	X	.	.	.
33827	12297	43°S	161°E	.	X	X	.	X	.	.	.
33831	01967	42°S	012°W	.	X	X	.	X	.	.	.
54804	01970	47°S	154°W	.	X	X	.	X	.	.	.
54805	01985	44°S	166°W	.	X	X	.	X	.	.	.
54833	06586	46°S	133°W	X	X	X	.	X	.	.	X
54837	05135	26°S	165°W	.	X	X	.	X	.	.	.
54838	08823	44°S	136°W	.	X	X	.	X	.	.	.
54840	05120	54°S	102°W	.	X	X	.	X	.	.	.
54843	05134	47°S	121°W	.	X	X	.	X	.	.	.
55803	05136	49°S	080°W	.	X	X	.	X	.	.	.
56801	05130	13°S	115°E	.	X	X	.	X	.	.	.
56835	12291	27°S	086°E	.	X	X	.	X	.	.	.
56836	12293	28°S	098°E	.	X	X	.	X	.	.	.
56837	05116	06°S	107°E	.	*	X	.	*	.	.	.
56838	12294	14°S	066°E	.	X	X	.	X	.	.	.
56839	05124	25°S	083°E	.	X	X	.	X	.	.	.
56840	12292	54°S	080°E	.	*	X	.	X	.	.	.
74801	01980	71°S	046°W	.	X	X	.	*	.	.	.
74802	01983	63°S	016°W	.	*	X	.	*	.	.	.

* Sensor / system failure.

5. ARGOS service

5.1 ARGOS monthly status report

As at 2 July 1992 the ARGOS service was handling reports from 983 drifting buoys, 266 moored buoys, 6 balloons, 28 ships, 243 animal trackings, 383 fixed stations, 354 boats and 87 miscellaneous platforms. DRIFTER reports from 75 drifting buoys and BATHY reports from 0 selected ships were transmitted to the RTH Paris and DRIFTER reports from 415 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
Australia	55512	00416
	55513	00421
	55515	00415
	55516	00417
	55517	00413
	56001	04873
	56501	02934
	56503	08035

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
Australia (continued)	56504	08036
	56506	04875
	56507	04876
	56508	04877
	56548	04871
	56549	04872
	55514+	00413

\+ PTTs which were removed from GTS during the month

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
Canada	21551	01333
	21553	01332
	44693	08649
	46643	01185
	46644	01198
	46647	01187
	46648	01188
	46651	01318
	47554	02469
Finland	71091	05895
France	44601	10103
	62501	10115
	62503	05834
	62504	05825
	62502+	10106
	64043+	06271
Germany	48601	11240
	48602	11241
	48604	11243
	48605	11244
	48606	11245
	48607	11246
	63662	09360
	63663	09372
	71042	03317
	71524	03315
	71545	09353
	71550	09356
	71551	09357
	71552	09358
	71553	09359
	63562+	09360
	63563+	09372
Iceland	65592	03039
Netherlands	44761	06669
New Zealand	55580	06439
	55586	07176
Norway	17001	01591
	25561	01556
	26531	01791
	26532	01790
	44760	03038
	63531	03704
	65591	06666
	65594	09308
	71003	09498
	71004	09499
	74002	09405
	74005	09406
Republic of Korea	22601	02031
	22602	02032
	22603	02033
South Africa**	14523	06730
	14524	03515
	17538	03510
	17539	03511
	33021	09087
United Kingdom	25562	01639
	44762	01253
	44763	01256
	44764	01254
	44765	01255
	62696	01251
	62697	01261
	62805	06285
	64608	01252
United States of America	11318	14356
	13004+	11019
	13005	01647
	13501	12720
	13502	12721
	13503	06187
	13504	06188
	13901	14455
	13902	14456
	13903	14457
	13904	14445
	13905	14447

\+ PTT's which were removed from GTS during the month

** 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
United States of America (continued)	13906	14460
	13907	14461
	13908	14462
	13909	08598
	13911	14448
	13912	14449
	13913	14450
	13914	14452
	13915	14453
	13917	14440
	13918	14441
	13919	14442
	13920	14443
	13921	14444
	14464	14464
	15103	15103
	15700	15700
	16807	05133
	16810	12309
	17804	12300
	17805	12304
	17809	05125
	17811	05569
	17812	01981
	17814	01968
	17815	01965
	17825	05129
	21523	02268
	21524	02269
	21525	06096
	21530	06115
	21532	12696
	21533	12695
	21573	04648
	21575	14594
	21901	15537
	21902	15536
	21903	15588
	21904	14981
	22511	06116
	22514	06110
	22901	14980
	22902	00529
	22904	00531
	22905	14972
	22903+	00530
	23516	01726
	23517+	01727
	23518	02048
	25537	12805
	31502	09844
	32439	15604

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	32512	11920
	32513	11917
	32514	11948
	32515	15648
	32516	11927
	32517	15093
	32518	15091
	32519	11905
	32520	15649
	32521	15651
	32522	15598
	32523	10809
	32524	15695
	32525	11192
	32526	15696
	32527	15697
	32528	03224
	32529	15028
	32530	15699
	32531	15011
	32532	11897
	32533	15017
	32534	15018
	32535	15025
	32536	15026
	32537	03225
	32538	15602
	32540	11904
	32541	15595
	32542	15596
	32543	03567
	32544	11908
	32545	15679
	32546	11160
	32547	15597
	32548	15599
	32549	11163
	32551	15600
	32552	11195
	32553	15603
	32554	15601
	32555	15625
	32556	11934
	32557	15626
	32558	09276
	32559	15627
	32560	03252
	32901	03565
	32902	15045
	32903	15050
	32904	15128
	32906	15685

+ PTT's which were removed from GTS during the month

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	32907	15686
	32908	15687
	32909	15688
	32910	15540
	32911	15541
	32912	15542
	32913	15546
	32914	03568
	32915	15048
	32916	15545
	33509	12307
	33510	12308
	33827	12297
	33828	12298
	33831	01967
	34901	15123
	34902	15125
	41503	06278
	41504	12722
	41505	06638
	41506	02271
	41522	01125
	41523	01128
	41525	06277
	41902	08594
	41903	08596
	41904	08599
	41905	12320
	41906	12333
	41907	12329
	41908	12339
	42026	00937
	42027	00930
	42028	00932
	42029	00934
	42030	00931
	42031	00936
	42032	00933
	42033	00935
	43501	11919
	43503	15656
	43504	11198
	43505	15657
	43506	15698
	43507	15010
	43508	15008
	44504+	09170
	44505	09169
	44506	09163
	44507	09175
	44514	04646
	44559	15138

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	44904	12321
	44905	12335
	46508	06097
	46512	06120
	46513	06185
	46515	01126
	46531	15618
	46532	15615
	46533	15619
	46534	15624
	46535	15607
	46536	15609
	46537	15612
	46538	15613
	46539	15622
	46540	15562
	46541	15643
	46542	15639
	46543	15642
	46544	15637
	46545	15640
	46546	15641
	46547	15070
	46548	15075
	46549	15076
	46550	01135
	46901	15655
	46902	15563
	46903	15564
	47601	12823
	48518	12800
	48519	12820
	48520	12801
	48554	12802
	48555	12806
	48557	12808
	48558	12821
	48559	12822
	48560	12824
	48561	12825
	48562	12826
	48564	12828
	48565	12829
	51025	12878
	51510	15042
	51511	15117
	51512	15089
	51513	11663
	51514	02433
	51515	14432
	51516	11949
	51517	11676

+ PTT's which were removed from GTS during the month

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	51518	15077
	51519	02437
	51520	03117
	51801	14433
	51802	02434
	51803	15593
	51804	14434
	51805	15106
	51806	03118
	51808	02435
	51809	14435
	51810	11956
	51811	15653
	51812	15654
	51813	11924
	51814	11946
	51815	03222
	51816	15616
	51817	15617
	51818	15110
	51820	15122
	51821	11690
	51822	11870
	51823	03223
	51824	02436
	51825	03116
	51826	03119
	51827	11688
	51828	15015
	51829+	11202
	51830	15088
	51832	11955
	51833	11872
	51834	11957
	51835	09271
	51836	09270
	51837	15621
	51838	03170
	51839	03173
	51840	15090
	51841	11950
	51842	11702
	51844	09275
	51845	15107
	51846	11692
	51847	15027
	51848	15009
	51849	15097
	51850	15608
	51853	15610
	51855	11705
	51856	15082

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	51857	11667
	51858	15611
	51859	15606
	51861	15099
	51862	11670
	51863	15636
	51865	15638
	51866	15644
	51867	15645
	51869	11674
	51870	11679
	51871	15646
	51872	11696
	51873	11699
	51875	11704
	51876	11683
	51878	15072
	51879	15074
	51880	15078
	51881	15080
	51882+	15081
	51883	15083
	51884	15084
	51885	15086
	51901	15658
	51902	15671
	51903	15672
	51905	15674
	52011+	06796
	52506	15031
	52507	15037
	52508	15104
	52509	15109
	52510	11939
	52512	15023
	52513	15661
	52514	14975
	52515	15041
	52517	15108
	52518	15114
	52520	15121
	52616	15021
	52801	15035
	52803	15029
	52804	15051
	52805	15012
	52807	09278
	52808	15666
	52809	15016
	52810	15701
	52811	15111
	52812	15126

+ PTT's which were removed from GTS during the month

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
United States of America (continued)	52814	15659
	52815	15660
	52816	15664
	52817	15665
	52818	15670
	52826	15668
	52827	15663
	52828	15669
	52829	01208
	52831	01212
	52832	01214
	52833	01215
	52834+	01909
	52835	15548
	52836	15549
	52866	11887
	52872	11890
	52877	11883
	52928	15692
	53501	06111
	53502	06112
	54801	01973
	54802	01993
	54803	01975
	54804	01970
	54805	01985
	54835	06731
	54836	05128
	54837	05135
	54838	08823
	54840	05120
	54842	05122
	54843	05134
	54844	05123
	54833+	06586
	54901	15049
	54902	15115
	54903	15118
	54904	15020
	54905	15024
	54906	15539
	54907	15044
	54908	15129
	54909	15120
	54910	15033
	54912	15101
	54913	15112
	54914	15119
	54915	15678
	54916	15630
	54917	15631
	54918	15632
	54919	15634
	54920	15633
	54921	15675
	54922	15682
	54923	15683
	54924	15693
	54925	15694
	54926	15676
	54927	15680
	54929	15681
	54930	15690
	55601	01123
	55803	05136
	56801	05130
	56835	12291
	56836	12293
	56837	05116
	56838	12294
	56839	05124
	56840	12292
	63656+	01300
	63657+	01301
	64582	02126
	64583	02128
	71562	01431
	71563	01432
	71564	01433
	74801	01980
	74802	01983
	91353	12872
ATLAS BUOYS	32315	06461
	32316	06799
	32317	15808
	32318	12522
	32319	06371
	43001	06473
	51006	06798
	51007	15814
	51008	06370
	51009	15811
	51010	04591
	51011	12529
	51014	04595
	51015	15810
	51016	15812
	51017	12527
	51018	15809
	51019	06475
	51020	06518
	51021	04594
	51022	04592
	51023	06517
	51302	04593
	51303	06474

+ PTT's which were removed from GTS during the month

5.1 ARGOS monthly status report (cont.)

Operating country	WMO Identifier/ Call sign	ARGOS Identifier
ATLAS BUOYS (continued)	51305	06514
	51306	06794
	52001	12526
	52002	06476
	52003	12524
	52004	12528
	52006	06519
	52007	06797
ATLAS BUOYS (continued)	52008	06795
	52010	06460
	52012	06471
	52301	00776
	52302	00777
	52303	00772
	52304	00775
	52305	00771
	52307	00774

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 (see Appendix, pages 1 and 2) 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.

ANNEX III - Global Telecommunication System

Date: July 1992

C. Information on the operation of the GTS

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

1.1 New bulletins

- ***Notification from Australia:***

That WMC Melbourne will be generating new GRIB bulletins. These messages should be injected into the GTS as from 4 August. The abbreviated headings are as follows:

MSL (Issued for 0000 UTC and 1200 UTC)

Abbreviated Headings		Abbreviated Headings		Abbreviated Headings	
HPAA98	AMMC	HPAE98	AMMC	HPAI98	AMMC
HPAM98	AMMC	HPAO98	AMMC	HPBI98	AMMC
HPBA98	AMMC	HPBE98	AMMC	HPCI98	AMMC
HPBM98	AMMC	HPBO98	AMMC	HPDI98	AMMC
HPCA98	AMMC	HPCE98	AMMC	HPAK98	AMMC
HPCM98	AMMC	HPCO98	AMMC	HPBK98	AMMC
HPDA98	AMMC	HPDE98	AMMC	HPCK98	AMMC
HPDM98	AMMC	HPDO98	AMMC	HPDK98	AMMC

Heights (Issued for 0000 UTC and 1200 UTC)

Abbreviated Headings		Abbreviated Headings		Abbreviated Headings		Abbreviated Headings	
HHAA85	AMMC	HHAE85	AMMC	HHAI85	AMMC	HHAK85	AMMC
HHAM85	AMMC	HHAO85	AMMC	HHBI85	AMMC	HHBK85	AMMC
HHBA85	AMMC	HHBE85	AMMC	HHCI85	AMMC	HHCK85	AMMC
HHBM85	AMMC	HHBO85	AMMC	HHDI85	AMMC	HHDK85	AMMC
HHCA85	AMMC	HHCE85	AMMC				
HHCM85	AMMC	HHCO85	AMMC				
HHDA85	AMMC	HHDE85	AMMC				
HHDM85	AMMC	HHDO85	AMMC				
HHAA50	AMMC	HHAE50	AMMC	HHAI50	AMMC	HHAK50	AMMC
HHAM50	AMMC	HHAO50	AMMC	HHBI50	AMMC	HHBK50	AMMC
HHBA50	AMMC	HHBE50	AMMC	HHCI50	AMMC	HHCK50	AMMC
HHBM50	AMMC	HHBO50	AMMC	HHDI50	AMMC	HHDK50	AMMC
HHCA50	AMMC	HHCE50	AMMC				
HHCM50	AMMC	HHCO50	AMMC				
HHDA50	AMMC	HHDE50	AMMC				
HHDM50	AMMC	HHDO50	AMMC				
HHAA25	AMMC	HHAE25	AMMC	HHAI25	AMMC	HHAK25	AMMC
HHAM25	AMMC	HHAO25	AMMC	HHBI25	AMMC	HHBK25	AMMC
HHBA25	AMMC	HHBE25	AMMC	HHCI25	AMMC	HHCK25	AMMC
HHBM25	AMMC	HHBO25	AMMC	HHDI25	AMMC	HHDK25	AMMC
HHCA25	AMMC	HHCE25	AMMC				
HHCM25	AMMC	HHCO25	AMMC				
HHDA25	AMMC	HHDE25	AMMC				
HHDM25	AMMC	HHDO25	AMMC				

All the GRIB data are at 2.5 x 2.5 latitude/longitude resolution, and refer to the Northern Hemisphere

1.1 New bulletins (continued)

The following list of GRIB bulletins is expected to be transmitted over the GTS as from 00 UTC 1 July 1992 by WMC Melbourne. All the GRIB data are at 2.5 x 2.5 latitude/longitude resolution; section 2 is included.

Southern Hemisphere:

AREAS: 9 — 90°S to Equator, 270°E to 360°E
10 — 90°S to Equator, 180°E to 270°E
11 — 90°S to Equator, 90°E to 180°E
12 — 90°S to Equator, 0°E to 90°E

TTAAii	CCCC	GG	Content of bulletin	Area
HPIA98	AMMC	00,12	MSL Pressure analysis	9
HPJA98	AMMC	00,12	MSL Pressure analysis	10
HPKA98	AMMC	00,12	MSL Pressure analysis	11
HPLA98	AMMC	00,12	MSL Pressure analysis	12
HHIA85	AMMC	00,12	850 hPa geopotential analysis	9
HHJA85	AMMC	00,12	850 hPa geopotential analysis	10
HHKA85	AMMC	00,12	850 hPa geopotential analysis	11
HHLA85	AMMC	00,12	850 hPa geopotential analysis	12
HUKA85	AMMC	00,12	850 hPa u-wind comp analysis	11
HVKA85	AMMC	00,12	850 hPa v-wind comp analysis	11
HHIA50	AMMC	00,12	500 hPa geopotential analysis	9
HHJA50	AMMC	00,12	500 hPa geopotential analysis	10
HHKA50	AMMC	00,12	500 hPa geopotential analysis	11
HHLA50	AMMC	00,12	500 hPa geopotential analysis	12
HHIA25	AMMC	00,12	250 hPa geopotential analysis	9
HHJA25	AMMC	00,12	250 hPa geopotential analysis	10
HHKA25	AMMC	00,12	250 hPa geopotential analysis	11
HHLA25	AMMC	00,12	250 hPa geopotential analysis	12
HHKA20	AMMC	00,12	200 hPa geopotential analysis	11
HUKA20	AMMC	00,12	200 hPa u-wind comp analysis	11
HVKA20	AMMC	00,12	200 hPa v-wind comp analysis	11
HPIE98	AMMC	00,12	MSL pressure 24 hr forecast	9
HPJE98	AMMC	00,12	MSL pressure 24 hr forecast	10
HPKE98	AMMC	00,12	MSL pressure 24 hr forecast	11
HPLE98	AMMC	00,12	MSL pressure 24 hr forecast	12
HHIE85	AMMC	00,12	850 hPa geopotential 24 hr forecast	9
HHJE85	AMMC	00,12	850 hPa geopotential 24 hr forecast	10
HHKE85	AMMC	00,12	850 hPa geopotential 24 hr forecast	11
HHLE85	AMMC	00,12	850 hPa geopotential 24 hr forecast	12
HUKE85	AMMC	00,12	850 hPa u-wind comp 24 hr forecast	11
HVKE85	AMMC	00,12	850 hPa v-wind comp 24 hr forecast	11
HHIE50	AMMC	00,12	500 hPa geopotential 24 hr forecast	9
HHJE50	AMMC	00,12	500 hPa geopotential 24 hr forecast	10
HHKE50	AMMC	00,12	500 hPa geopotential 24 hr forecast	11
HHLE50	AMMC	00,12	500 hPa geopotential 24 hr forecast	12

1.1 New bulletins (continued)

Southern Hemisphere:

TTAAii	CCCC	GG	Content of bulletin	Area
HHIE25	AMMC	00,12	250 hPa geopotential 24 hr forecast	9
HHJE25	AMMC	00,12	250 hPa geopotential 24 hr forecast	10
HHKE25	AMMC	00,12	250 hPa geopotential 24 hr forecast	11
HHLE25	AMMC	00,12	250 hPa geopotential 24 hr forecast	12
HHKE20	AMMC	00,12	200 hPa geopotential 24 hr forecast	11
HUKE20	AMMC	00,12	200 hPa u-wind comp 24 hr forecast	11
HVKE20	AMMC	00,12	200 hPa V-wind comp 24 hr forecast	11
HPII98	AMMC	00,12	MSL pressure 48hr forecast	9
HPJI98	AMMC	00,12	MSL pressure 48hr forecast	10
HPKI98	AMMC	00,12	MSL pressure 48hr forecast	11
HPLI98	AMMC	00,12	MSL pressure 48hr forecast	12
HHII85	AMMC	00,12	850 hPa geopotential 48 hr forecast	9
HHJI85	AMMC	00,12	850 hPa geopotential 48 hr forecast	10
HHKI85	AMMC	00,12	850 hPa geopotential 48 hr forecast	11
HHLI85	AMMC	00,12	850 hPa geopotential 48 hr forecast	12
HUKI85	AMMC	00,12	850 hPa u-wind comp 48 hr forecast	11
HVKI85	AMMC	00,12	850 hPa v-wind comp 48 hr forecast	11
HHII50	AMMC	00,12	500 hPa geopotential 48 hr forecast	9
HHJI50	AMMC	00,12	500 hPa geopotential 48 hr forecast	10
HHKI50	AMMC	00,12	500 hPa geopotential 48 hr forecast	11
HHLI50	AMMC	00,12	500 hPa geopotential 48 hr forecast	12
HHII25	AMMC	00,12	250 hPa geopotential 48 hr forecast	9
HHJI25	AMMC	00,12	250 hPa geopotential 48 hr forecast	10
HHKI25	AMMC	00,12	250 hPa geopotential 48 hr forecast	11
HHLI25	AMMC	00,12	250 hPa geopotential 48 hr forecast	12
HHKI20	AMMC	00,12	200 hPa geopotential 48 hr forecast	11
HUKI20	AMMC	00,12	200 hPa u-wind comp 48 hr forecast	11
HVKI20	AMMC	00,12	200 hPa v-wind comp 48 hr forecast	11
HPIK98	AMMC	00,12	MSL pressure 72 hr forecast	9
HPJK98	AMMC	00,12	MSL pressure 72 hr forecast	10
HPKK98	AMMC	00,12	MSL pressure 72 hr forecast	11
HPLK98	AMMC	00,12	MSL pressure 72 hr forecast	12
HHIK85	AMMC	00,12	850 hPa geopotential 72 hr forecast	9
HHJK85	AMMC	00,12	850 hPa geopotential 72 hr forecast	10
HHKK85	AMMC	00,12	850 hPa geopotential 72 hr forecast	11
HHLK85	AMMC	00,12	850 hPa geopotential 72 hr forecast	12
HHIK50	AMMC	00,12	500 hPa geopotential 72 hr forecast	9
HHJK50	AMMC	00,12	500 hPa geopotential 72 hr forecast	10
HHKK50	AMMC	00,12	500 hPa geopotential 72 hr forecast	11
HHLK50	AMMC	00,12	500 hPa geopotential 72 hr forecast	12
HHIK25	AMMC	00,12	250 hPa geopotential 72 hr forecast	9
HHJK25	AMMC	00,12	250 hPa geopotential 72 hr forecast	10
HHKK25	AMMC	00,12	250 hPa geopotential 72 hr forecast	11
HHLK25	AMMC	00,12	250 hPa geopotential 72 hr forecast	12

1.1 New bulletins (continued)

Southern Hemisphere:

TTAAii	CCCC	GG	Content of bulletin	Area
HPIM98	AMMC	00,12	MSL pressure 96 hr forecast	9
HPJM98	AMMC	00,12	MSL pressure 96 hr forecast	10
HPKM98	AMMC	00,12	MSL pressure 96 hr forecast	11
HPLM98	AMMC	00,12	MSL pressure 96 hr forecast	12
HHIM85	AMMC	00,12	850 hPa geopotential 96 hr forecast	9
HHJM85	AMMC	00,12	850 hPa geopotential 96 hr forecast	10
HHKM85	AMMC	00,12	850 hPa geopotential 96 hr forecast	11
HHLM85	AMMC	00,12	850 hPa geopotential 96 hr forecast	12
HHIM50	AMMC	00,12	500 hPa geopotential 96 hr forecast	9
HHJM50	AMMC	00,12	500 hPa geopotential 96 hr forecast	10
HHKM50	AMMC	00,12	500 hPa geopotential 96 hr forecast	11
HHLM50	AMMC	00,12	500 hPa geopotential 96 hr forecast	12
HHIM25	AMMC	00,12	250 hPa geopotential 96 hr forecast	9
HHJM25	AMMC	00,12	250 hPa geopotential 96 hr forecast	10
HHKM25	AMMC	00,12	250 hPa geopotential 96 hr forecast	11
HHLM25	AMMC	00,12	250 hPa geopotential 96 hr forecast	12
HPIO98	AMMC	00,12	MSL pressure 120 hr forecast	9
HPJO98	AMMC	00,12	MSL pressure 120 hr forecast	10
HPKO98	AMMC	00,12	MSL pressure 120 hr forecast	11
HPLO98	AMMC	00,12	MSL pressure 120 hr forecast	12
HHIO85	AMMC	00,12	850 hPa geopotential 120 hr forecast	9
HHJO85	AMMC	00,12	850 hPa geopotential 120 hr forecast	10
HHKO85	AMMC	00,12	850 hPa geopotential 120 hr forecast	11
HHLO85	AMMC	00,12	850 hPa geopotential 120 hr forecast	12
HHIO50	AMMC	00,12	500 hPa geopotential 120 hr forecast	9
HHJO50	AMMC	00,12	500 hPa geopotential 120 hr forecast	10
HHKO50	AMMC	00,12	500 hPa geopotential 120 hr forecast	11
HHLO50	AMMC	00,12	500 hPa geopotential 120 hr forecast	12
HHIO25	AMMC	00,12	250 hPa geopotential 120 hr forecast	9
HHJO25	AMMC	00,12	250 hPa geopotential 120 hr forecast	10
HHKO25	AMMC	00,12	250 hPa geopotential 120 hr forecast	11
HHLO25	AMMC	00,12	250 hPa geopotential 120 hr forecast	12
HEKE98	AMMC	00,12	00-24 hr precipitation forecast	11
HEKI98	AMMC	00,12	24-48 hr precipitation forecast	11

Northern Hemisphere:
AREAS: 3 — Equator to 90°N, 90°E to 180°E

TTAAii	CCCC	GG	Content of bulletin	Area
HPCA98	AMMC	00,12	MSL pressure analysis	3
HHCA50	AMMC	00,12	500 hPa geopotential analysis	3
HHCA20	AMMC	00,12	200 hPa geopotential analysis	3
HUCA85	AMMC	00,12	850 hPa u-wind comp analysis	3
HVCA85	AMMC	00,12	850 hPa v-wind comp analysis	3
HUCA20	AMMC	00,12	200 hPa u-wind comp analysis	3
HVCA20	AMMC	00,12	200 hPa v-wind comp analysis	3

1.1 New bulletins (continued)

Northern Hemisphere:

TTAAii	CCCC	GG	Content of bulletin	Area
HPCE98	AMMC	00,12	MSL pressure 24 hr forecast	3
HHCE50	AMMC	00,12	500 hPa geopotential 24 hr forecast	3
HHCE20	AMMC	00,12	200 hPa geopotential 24 hr forecast	3
HUCE85	AMMC	00,12	850 hPa u-wind comp 24 hr forecast	3
HVCE85	AMMC	00,12	850 hPa v-wind comp 24 hr forecast	3
HUCE20	AMMC	00,12	200 hPa u-wind comp 24 hr forecast	3
HVCE20	AMMC	00,12	200 hPa v-wind comp 24 hr forecast	3
HPCI98	AMMC	00,12	MSL pressure 48 hr forecast	3
HHCI50	AMMC	00,12	500 hPa geopotential 48 hr forecast	3
HHCI20	AMMC	00,12	200 hPa geopotential 48 hr forecast	3
HUCI85	AMMC	00,12	850 hPa u-wind comp 48 hr forecast	3
HVCI85	AMMC	00,12	850 hPa v-wind comp 48 hr forecast	3
HUCI20	AMMC	00,12	200 hPa u-wind comp 48 hr forecast	3
HVCI20	AMMC	00,12	200 hPa v-wind comp 48 hr forecast	3
HECE98	AMMC	00,12	00-24 hr precipitation forecast	3
HECI98	AMMC	00,12	24-48 hr precipitation forecast	3

- **Notification from Japan**

RTH Tokyo have informed that the new Australian GRIB bulletins are in their switching tables

1.5 Bulletins for oceanographic data

Abbreviated Headings		Abbreviated Headings		Abbreviated Headings		Abbreviated Headings	
SOAG01	SABM	SOVD01	TFFF	SOVD12	KWBC	SOVJ10	RUML
SOBZ01	SBBR	SOVD01	TFFR	SOVD13	KWBC	SOVX01	DEMS
SOCO01	SKBO	SOVD01	TNCC	SOVE01	AMMC	SOVX01	RJTD
SOSN01	ESWI	SOVD02	BIRK	SOVE01	EGRR	SOVX02	DEMS
SOVA01	EGRR	SOVD02	CWOW	SOVE01	NTAA	SOVX02	RJTD
SOVA02	EGRR	SOVD02	EGRR	SOVE02	AMMC	SOVX10	RUHB
SOVA10	RUMS	SOVD02	KWBC	SOVE02	EGRR	SOVX10	RUMS
SOVB01	EGRR	SOVD02	TFFF	SOVF01	RUHB	SOWF01	ENMI
SOVB02	EGRR	SOVD02	TFFR	SOVF01	BIRK		
SOVB10	RUHB	SOVD02	TNCC	SOVF01	EDZW		
SOVB10	RUMS	SOVD03	KWBC	SOVF01	EGRR		
SOVC01	EGRR	SOVD04	KWBC	SOVF01	ENMI		
SOVC02	EGRR	SOVD05	KWBC	SOVF01	ESWI		
SOVC10	RUHB	SOVD06	KWBC	SOVF01	LFPW		
SOVC10	RUMS	SOVD07	KWBC	SOVF02	BIRK		
SOVD01	BIRK	SOVD08	KWBC	SOVF02	EGRR		
SOVD01	CWHF	SOVD09	KWBC	SOVF02	ESWI		
SOVD01	CWPF	SOVD10	RUHB	SOVF10	RUMS		
SOVD01	EGRR	SOVD10	RUMS	SOVJ01	EGRR		
SOVD01	KWBC	SOVD11	KWBC	SOVJ02	EGRR		

C. Information on the operation of the GTS

2. Transmission schedules (Publication No. 9, Volume C, Chapter II)

2.1 New transmissions/broadcasts

- ***Notification from the Russian Federation.***

  That as of 7 July 1992 WMC Moscow will be introducing new schedules for programmes 1 and 2 to the radio-facsimile broadcasts..

2.3 Changes in schedules /technical specifications

- ***Notification from the Republic of Korea***

  That Seoul radio-facsimile broadcast discontinued meteorological satellite picture at 0100 UTC and satellite data ANAS (Nephanalysis) at 0115, 0715, 1915 UTC

ANNEX IV- Codes

Date: July 1992

B. Manual on Codes

1. Global Practices

1.3 Changes to codes

The President of CBS has approved the consequential amendments to aeronautical codes arising from the final update of Amendment 69 to ICAO Annex 3 (WMO Technical regulations, Volume II) for use as from 1 July 1993. Changes are as follows:

MANUAL ON CODES

VOLUME I

INTERNATIONAL CODES

Page: I—A—46

METAR and SPECI code forms are modified as follows:

****FM 15–IX Ext. METAR — Aviation routine weather report (with or without trend forecast)**

****FM 16–IX Ext. SPECI — Aviation selected special weather report (with or without trend forecast)**

C O D E F O R M :

{ **METAR** or **SPECI** } CCCC (GGggZ)* dddffGf$_m$f$_m$ { **KMH** or **KT** or **MPS** } $d_nd_nd_nVd_xd_xd_x$

{ VVVVD$_V$ or **CAVOK** } $V_xV_xV_xV_xD_V$ { $RD_RD_R/V_RV_RV_RV_Ri$ or $RD_RD_R/V_RV_RV_RV_RVV_RV_RV_RV_Ri$ } w′w′ (ww) { **NsNsNshshshs** or **VVhshshs** or **SKC** }

T′T′/T′$_d$T′$_d$ QP$_H$P$_H$P$_H$P$_H$P$_H$ REw′w′ { **WS TKOF RWY**D$_R$D$_R$ and/or **WS LDG RWY**D$_R$D$_R$ }

{ (TTTTT TTGGgg dddffGf$_m$f$_m$ or **NOSIG**) } { **KMH** or **KT** or **MPS** } { VVVV or **CAVOK** } { w′w′ or **NSW** } { $N_SN_SN_Sh_Sh_Sh_S$ or $VVh_Sh_Sh_S$ or **SKC** }

* Brackets valid only for FM 15-IX Ext. METAR .

** For use as from 1 July 1993.

Consequential modifications are made to group in Regulations 15.3, 15.9 and 15.13.

1.3 Changes to codes (continued)

Change the following Regulations to read as follows:

Page: I—A—47

15.1.1

The code name **METAR** or **SPECI** shall be included at the beginning of an individual report, followed by the location indicator of the observing station and the time of observation. In the case of a meteorological bulletin, which may consist of one or more than one METAR report, the code name METAR followed by the official time of observation in hours and minutes UTC followed without a space by the letter indicator Z shall be included as the first line of the text of the bulletin.

NOTE: By agreement between the authorities concerned, the code names METAR and SPECI may be omitted from the text of the bulletin.

Page: I—A—48

15.3.1

The time of observation in hours and minutes UTC followed, without a space, by the letter indicator Z shall be included in individual METAR reports within a bulletin of one or more than one report:

(a) If the actual time of observation deviates by more than 10 minutes from the official time of observation included in the first line of the text of the bulletin; or

(b) In accordance with the requirements established by the authorities concerned.

Page: I—A—48

15.3.2

This group shall always be included in individual SPECI reports within a bulletin of one or more than one report. In SPECI reports, this group shall indicate the time of occurrence of the change(s) which justified the issue of the report.

Page: I—A—49

Change NOTE (3) to Regulation 15.4.1 to read as follows:

NOTES:

(3) A marked discontinuity occurs when there is an abrupt and sustained change in wind direction of 30° or more, with a wind speed of 20 km h^{-1} (10 kt) or more before or after the change, or a change in wind speed of 20 km h^{-1} (10 kt) or more, lasting at least two minutes.

Page: I—A—50

15.5.2

When the horizontal visibility is not the same in all directions, the minimum visibility shall be given for VVVV followed, without a space, by D_V consisting of one or two letters to indicate the general direction of the visibility in relation to the site of the aeronautical meteorological station reported as one of the eight points of the compass (N, NE, etc.). If the lowest visibility is observed in more than one direction, then D_V shall represent the most operationally significant direction. Significant directional differences from the reported visibility shall be reported in accordance with Regulation 15.5.3.

1.3 Changes to codes (continued)

Page: I—A—50/51 (old (c) deleted)

15.5.4

Horizontal visibility shall be reported using the following reporting steps:
(a) Up to 500 metres rounded down to the nearest 50 metres;
(b) Between 500 and 5000 metres rounded down to the nearest 100 metres;
(c) Between 5000 metres up to 9999 metres rounded down to the nearest 1000 metres;
(d) With 9999 indicating 10 km and above.

Page: I—A—52
Change NOTE (3) to read:

15.6.4.2

N O T E S:

(3) A marked discontinuity occurs when there is an abrupt and sustained change in runway visual range, lasting at least two minutes, consistent with the issuance of selected special reports given in Technical Regulation [C.3.1.]4.3.3.

Page: I—A—52
Delete 'Note"

15.6.4.3

If the runway visual range values during the 10-minute period preceding the observation show a distinct upward or downward tendency such that the mean during the first five minutes varies by 100 m or more from the mean during the second five minutes of the period. This shall be indicated by i = U for upward and i = D for downward tendency of runway visual range values. When no distinct change in runway visual range is observed, i = N shall be used. When it is not possible to determine the tendency, i shall be omitted.

Page: I—A—55

15.7.10

The qualifier VC shall be used to indicate the following significant weather phenomena observed in the vicinity of the aerodrome: DS, SS, FG, FC, SH, PO, BLDU, BLSA and BLSN. Regulations referring to the combination of VC and FG are given in Regulation 15.7.17.

N O T E S:
(1) Such weather phenomena should be reported with the qualifier VC only when observed within eight kilometres of the aerodrome but not at the aerodrome.
(2) See Regulation 15.7.7.

Page: I—A—57

15.8

N O T E: w'w' meets current aeronautical requirements. As ww meets basic data requirements and may stress different aspects of the observed weather, it should not be disseminated internationally.

1.3 Changes to codes (continued)

Page: I—A—58

15.9.1.1

The cloud amount $N_SN_SN_S$ shall be reported as scattered (1 to 4 oktas), broken (5 to 7 oktas) or overcast (8 oktas), using the three-letter abbreviations SCT, BKN and OVC followed, without a space, by the height of the base of the cloud layer (mass) $h_Sh_Sh_S$. If there are no clouds and the abbreviation CAVOK is not appropriate, the abbreviation SKC shall be used.

Page: I—A—61

15.13.1

For international dissemination, the section on supplementary information shall be used only to report recent weather phenomena of operational significance and available information on wind shear in the lower layers.

Renumber Regulations: 15.13.2 as 15.13.3
15.13.3 as15.13.2
15.13.3.1 as 15.13.2.1
15.13.3.2 as 15.13.2.2; and re-arrange the Regulations accordingly.

Page: I—A—62

Change the newly renumbered Regulation 15.13.2.1 to read:

15.13.2.1

Information on recent weather shall be given by the indicator letters RE followed, without a space, by the appropriate abbreviations, in accordance with Regulation 15.7 if the following weather phenomena were observed during the period since the last routine report, but not at the time of observation:

- Freezing precipitation;
- Moderate or heavy rain or snow;
- Moderate or heavy: ice pellets, hail, small hail and/or snow pellets;
- Moderate or heavy blowing snow;
- Sandstorm or duststorm;
- Thunderstorm;
- Volcanic ash.

Page: I—A—62

15.14.11

Inclusion of significant forecast weather w'w', using the appropriate abbreviations in accordance with Regulation 15.7, shall be restricted to indicate the onset, cessation or change in intensity of the following weather phenomena:

- Freezing precipitation;
- Moderate or heavy: rain, snow, ice pellets, hail, small hail and/or snow pellets, rain and snow mixed;
- Low drifting dust, sand or snow;
- Blowing dust, sand or snow;
- Duststorm;
- Sandstorm;
- Thunderstorm (with rain, ice pellets, hail, small hail and/or snow pellets, or snow, or combinations thereof);
- Squall;
- Funnel cloud (tornado or waterspout);
- Other weather phenomena given in Code table 4678 which are expected to cause a significant change in visibility).

1.3 Changes to codes (continued)

Page: I—A—164

First line of TAF Code Form is modified as follows:

FM 51–IX Ext. TAF — Aerodrome forecast

CODE FORM:

TAF CCCC (YYGGgg**Z**) $G_1G_1G_2G_2$ ddd**ff**G_fm_fm { **KMH** or **KT** or **MPS**

Regulations are modified or changed as follows:

Page: I—A—165

51.1.2

The group $YYGG_{gg}$**Z**, if required, shall be included in each individual forecast to report the date and time of origin of forecast.

Page: I—A—166

51.1.5

The group w'w' and/or the group $N_SN_SN_Sh_Sh_Sh_S$ or **VV**$h_Sh_Sh_S$ shall be omitted if the corresponding element(s) is (are) expected to be absent or not significant. After change groups TTTTT GGG_eG_e, elements shall be omitted if they are not expected to differ significantly from the preceding values they possessed in the coded forecast (see Regulations 51.5.2, 51.6.1.7 and 51.6.3). However, in case of a significant reduction in visibility, the weather phenomenon forecast to cause the deterioration shall also be indicated and, in case of a significant change of the clouds, all cloud groups including any significant layer(s) or masses not expected to change shall be given.

Page: I—A—168

51.5.1

Inclusion of significant forecast weather w'w', using the appropriate abbreviations in accordance with Regulation 15.7, shall be restricted to indicate the occurrence of the following weather phenomena:

- Freezing precipitation;
- Moderate or heavy: rain, snow, ice pellets, hail, small hail and/or snow pellets, rain and snow mixed;
- Low drifting dust, sand or snow;
- Blowing dust, sand or snow;
- Duststorm;
- Sandstorm:
- Thunderstorm (with rain, snow, ice pellets, hail or small hail and/or snow pellets, or combinations thereof);
- Squall;
- Funnel cloud (tornado or waterspout);
- Other weather phenomena given in Code table 4678 which are expected to cause a significant change in visibility.

Page: I—A—168

51.6.1.7

When clear sky is forecast, the cloud group shall be replaced by the abbreviation **SKC.**

1.3 *Changes to codes (continued)*

Page: I—A—170

51.6.2

Vertical visibility VV$h_Sh_Sh_S$

When the sky is expected to be obscured and clouds cannot be forecast and information on vertical visibility is available, the group VV$h_Sh_Sh_S$ shall be used in lieu of $N_SN_SN_Sh_Sh_Sh_S$, where $h_Sh_Sh_S$ shall be the vertical visibility in units of 30 metres (hundreds of feet).

N O T E: See Note (1) to Regulation 15.9.2.

Page: I—A—173

51.12.1

In order to indicate the probability of occurrence of an alternative value(s) of a forecast element(s), during a defined period of time the groups **PROB**C_2C_2 GGG_eG_e shall be placed directly before the alternative value(s). For C_2C_2, only the values 30 and 40 shall be used to indicate the probabilities 30% and 40% respectively.

N O T E: A probability of less than 30% of actual values deviating from those forecast is not considered to justify the use of the group **PROB**. When the possibility of an alternative value is 50% or more, this should be indicated by the use of BECMG, TEMPO or FM as appropriate.

Page: I—A—175
First line of Section 1 of code form is modified as follows:

FM 53–IX Ext. ARFOR — Area forecast for aviation

C O D E F O R M:

SECTION 1 **ARFOR** (YYGGggZ) $G_1G_1G_2G_2$ { **KMH** or **KT** or **MPS**

Page: I—A—176

53.1.1

The code name **ARFOR** shall appear as a prefix to individual coded area forecasts, followed by the group YYGGggZ if required.

N O T E: See Regulation 51.1.2.

Page: I—A—183
Section 1 of code form is modified as follows:

FM 54–IX Ext. ROFOR — Route forecast for aviation

C O D E F O R M:

SECTION 1	**ROFOR**	(YYGGggZ)	$G_1G_1G_2G_2$	{ **KMH** or **KT** or **MPS**
	CCCC	($QL_aL_aL_oL_o$)	CCCC	$0i_2zzz$
	(VVVV)	($w_1w_1w_1$)	$N_SN_SN_Sh_Sh_Sh_S$	
	$7h_th_th_th_fh_fh_f$	($6I_Ch_ih_ih_it_L$)	($5Bh_Bh_Bh_Bt_L$)	
	($4h_xh_xh_xT_hT_h$	$d_hd_hf_hf_hf_h$)	($2h'_ph'_pT_pT_p$)	

1.3 Changes to codes (continued)

Page: I—A—184

54.1.1

The code name **ROFOR** shall appear as a prefix to individual coded route forecasts, followed by the group YYGGggZ if required.

N O T E: See Regulation 51.1.2.

Page: I—C—81

Change the specification to read as follows:

SPECIFICATIONS OF SYMBOLIC LETTERS **Vs—VVVV**

VVVV Horizontal visibility at surface, in metres, in increments of 50 metres up to 500 metres, in increments of 100 metres between 500 and 5000 metres, and in increments of 1000 metres between 5 000 metres up to 9999 metres, with 9999 indicating visibility of 10 km and above.

(FM 15-IX Ext., FM 16-EXT., FM 51-IX Ext., FM 53-IX Ext., (FM 54-Ext.)

(1) If the value is between two increments, it shall be rounded off downward to the lower of the two increments. For example, a visibility of 370 metres shall be reported as 0350, a visibility of 570 metres shall be reported as 0500, a visibility of 3570 metres shall be reported as 3500, and a visibility of 5700 metres shall be reported as 5000

Page: I—D—166

Change heading of column 1 to read: "INTENSITY OR PROXIMITY".
Change specification of descriptor entry DR in column 2 to read: "Low drifting".

4678

w'w'—*Significant present and forecast weather*

QUALIFIER		WEATHER PHENOMENA		
INTENSITY OR PROXIMITY 1	DESCRIPTOR 2	PRECIPATION 3	OBSCURATION 4	OTHER 5
- Light	MI Shallow	DZ Drizzle	BR Mist	PO Well-developed dust/sand whirls
Moderate (no qualifier)	BC Patches	RA Rain	FG FOg	SQ Squalls
+ Heavy	DR Low drifting	SN Snow	FU Smoke	
	BL Blowing	SG Snow grains	VA Volcanic ash	FC Funnel cloud(s) (tornado or water spout)
VC In the vicinity	SH Shower(s)	IC Diamond dust	DU Widespread dust	SS Sandstorm
	TS Thunderstorm	PE Ice pellets	SA Sand	DS Duststorm
	FZ Supercooled	GR Hail	HZ Haze	
		GS Small hail and/or snow pellets		

The w'w' groups shall be constructed by considering columns 1 to 5 in the table above in sequence, that is intensity, followed by description, followed by weather phenomena. An example could be: +SHRA (heavy shower(s) of rain).

1.3 Changes to codes (continued)

Page: I—D—167 and **168**
Change Notes: (5), (8) and (13) to read as follows:

Notes:

(5) Intensity shall be indicated only with precipitation, showers, precipitation associated with thunderstorms, blowing dust, sand or snow, duststorm or sandstorm. Well-developed tornadoes or waterspouts shall be reported using the indicator +, for example +FC.

(8) The descriptor DR (low drifting) shall be used for dust, sand or snow raised by the wind to less than two metres above the ground. BL (blowing) shall be used to indicate dust, sand or snow raised by the wind to a height of two metres or more above the ground. The descriptors DR and BL shall be used only in combination with the letter abbreviations DU, SA and SN, for example BLSN.

(13) The proximity qualifier VC shall be used only in combination with the letter abbreviations DS, SS, FG, FC, SH, PO, BLDU, BLSA and BLSN.

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

Date: July 1992

C. Information on the operation of Marine Meteorological Services

1. Broadcasts for shipping and other marine activities (Publication No. 9, Volume D, Part A)

1.3 Changes in schedules/technical specifications

- ***Notification from France***

That effective 25 June 1992:
Ai-VI — Group A, Saint-Lys Radio France should read

FFL 2,	0850, 1750 UTC	4 328 kHz
FFT 4,	0850, 1750 UTC	8 550 kHz
FFL 6	0850, 1750 UTC	12 912.6 kHz
FFT 6	0850, 1750 UTC	13 073.8 kHz
FFT 8	0850, 1750 UTC	16 947.6 kHz
FFL 2	1900-0400 UTC	4 328 kHz
FFL 3	1900-2100 UTC	6 421.5 kHz
FFL 4	0000-2400 UTC	8 522.5 kHz
FFL 6	0400-2400 UTC	12 912.6 kHz
FFL 8	0600-1900 UTC	17 027 kHz
FFS 4	0700-1900 UTC	8 510 kHz
FFS 6		12 678 kHz

2. Marine meteorological services available for main ports (Publication No. 9, Volume D, Part C_1)

- ***Notification from Malaysia:***

Page D-C1-V-5: amend to read:
MALAYSIA - MALAISIE (1.1.1992)

(1)	(2)	(3)
Port Bintulu	PMO, Malaysian Meteorological Service, Meteorological Station Bintulu, P.O. Box 285, 97007 BINTULU, Sarawak, East Malaysia	
Port Klang	PMO, Malaysian Meteorological Service Jalan Sultan, 46667 PETALING JAYA, Selangor, West Malaysia	(03)-7569422
Port Kota Kinabalu	PMO, Malaysian Meteorological Service, 14th floor, Wisma Dang Bandang, 8800 KOTA KINABALU, Sabah, East Malaysia	(088)-234873 (088)-56054
Port Kuching	PMO, Malaysian Meteorological Service, 2nd Floor, Lot No. 4914, Jalan Simpang Tiga, P.O. Box 2954, 93758 KUCHING, Sarawak, East Malaysia	(082)57712

(4) Daily broadcasts of weather and sea bulletins over the Penang coastal radio station six times per day for international shipping /
Diffusions quotidiennes de bulletins de météorologie maritime par la station radio côtière de Penang, six fois par jour pour la navigation internationale.

(5) Supply on request / Fournis sur demande

(6) For warnings and other weather and sea bulletins contact the PMO on duty or the nearest Meteorological Office (Kuala Lumpur International Airport, Tel. No. 03-7465990, and 03-7463951; Kuching, Tel. No. 082-452454) /
Pour les avis et autres bulletins de météorologie maritime, contacter l'AMP de service ou le Bureau météorologique le plus proche (Kuala Lumpur International Airport, Tél. N° 03-7465990, et 03-7463951; Kuching, Tél. N° 082-452454)