OPERATIONAL NEWSLETTER

VOLUME 1997

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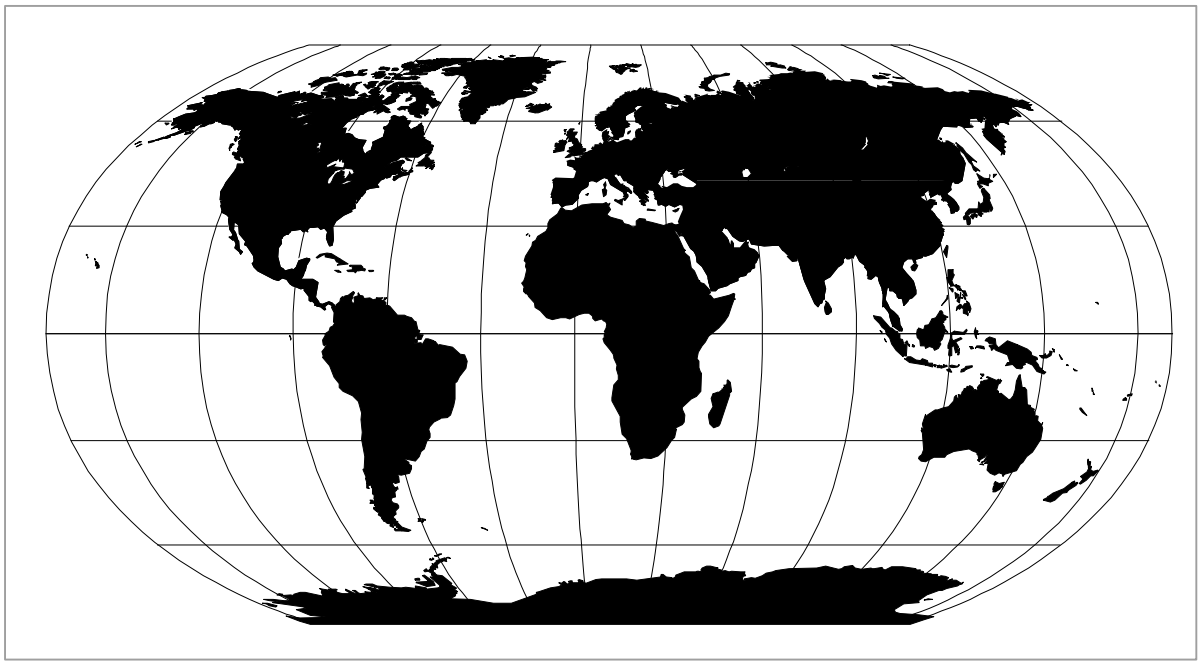
WORLD WEATHER WATCH



WORLD METEOROLOGICAL ORGANIZATION
GENEVA
SWITZERLAND

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

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

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

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

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

In addition to the printed version which is distributed by mail, the Operational Newsletter is also available at the following locations:

For access via FTP:

ftp://WWW.WMO.CH/wmo-ddbs/Newsltrxxxx.pdf

For access via html:

http://WWW.WMO.CH/web/www/Newsltrxxxx.pdf

(xxxx indicates the year/month (eg. 9701))

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http://www.adobe.com/Acrobat/readstep.html

Should your have any difficulties downloading, viewing or printing the Newsletter ... Our e-mail address is as follows:

PWOI@WWW.WMO.CH

We look forward to hearing from you

Rising costs demand that we scale down the distribution of the Newsletter by letter mail, so we strongly encourage our readers to help us become more cost-effective by using our new on-line service.

CONTENTS

Guidance Material on Instruments and Observing Methods

"WMO Catalogue of Radiosondes and Upper-air Wind Systems in Use By Members"
Updates

Country	Namibia 8/1/97	Namibia 8/1/97	Romania 18/3/97	Romania 18/3/97	Romania 18/3/97
Index No.	68110	68098	15120	15420	15480
Name:	WINDHOEK	WALVIS BAY AIRPORT	CLUJ-NAPOCA	BUCARESTI/IMH	CONSTANTA
Latitude:	-22.57	-22.96	46.78	44.5	44.22
Longitude	17.1	14.66	23.57	26.13	28.63
Ht (m/AMSL)	1700	150	413	91	14
TEMP Program	0012	12	00	00	00
PILOT Program	-	_	00	00	00
Regular Radiosonde Type	VRS80N	Graw (DFM-90)	VRS80N	VRS80N	A-22
Alt. Radiosonde Type	VRS80-18G	_	_	_	_
Radiosonde Freq.uency (MHz)	403	402-406	403	403	216
Geo ht. calculation (AUT/MAN)	A	A	A	A	
GCOS (Y/N)	Y		N	N	N
Ground Equipment	DIGICORA	Graw (GK-90)	DIGICORA	DIGICORA	DIGICORA
Radiation Corr. (Y/N)	Y	Y	Y	Y	N
Radiation Corr. Type	V86	_	V86	V86	
Windfinding System/Method	OMEGA/GPS	OMEGA/ RADIOTEHODOLITE?	OMEGA	OMEGA	OMEGA and LORAN-C
Windfinding Equipment	DIGICORA	Graw (GK-90)/Atir	DIGICORA	DIGICORA	DIGICORA
Remarks	To change from Omega to GPS during 1997	Station to open during early to mid-1997	DIGICORA SINCE 01/12/92	DIGICORA SINCE 01/12/92	Planned to switch to AVK 1993. DIGICORA since 12/12/96. Due to high costs operational programs reduced to one radiosonding daily on 18/3/97

Information on the Operational Status of Elements of the Surface-Based Sub-System

PUBLICATION NO. 9, VOLUME A - OBSERVING STATIONS

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

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

Members are urged to fill in the special table as and when appropriate, and to return it to the Secretariat so that the changes can be included in the next "OPERATIONAL *NEWSLETTER*".

TEMPORARY CHANGES

NOTIFICATION FROM AUSTRALIA

End of Australian Summer Time:

Australian summer time ceased at 1500 UTC on 29 March 1997 in:

New South Wales,
the Australian Capital Territory,
Victoria,
South Australia and
Tasmania

Australian Summer Time was not implemented in :

Queensland,
Western Australia or the
Northern Territory.

Surface observations reverted to normal program from 1500 UTC on 29 March 1997 in:

New South Wales,
the Australian Capital Territory,
Victoria,
South Australia and
Tasmania.

No changes will be made to the time of surface observations in:

Queensland,
Western Australia or the
Northern Territory.

Upper air observations in all states and territories reverted to normal program from 1500 UTC on 29 March 1997.

NOTIFICATION FROM PORTUGAL

Within the scope of project ACE-2/CLEARCOLUMN, two daily radiosonde observations are programmed to be performed at Sao Teotonio, in principle this will be at 0600 UTC and 1500/1800 UTC, from 16 June to 31 July 1997.

In order to enable the dissemination of TEMP messages through the GTS with the results of the observations,the index number proposed to be allotted, corresponding to the location of Sao Teotonio station (Lat.=3733N, Long. =0843W and ht=119m) is: 08577.

Publication No. 9, Volume A - Observing Stations
Changes to Existing stations

Index No.		Name of Station	Position		Elevation		Pressure Level	Surface Observations								OBS. H	Upper-air				Other Observations and Remarks	Bulletins
			Latitude	Longitude	HP	H/HA		00	03	06	09	12	15	18	21	OBS.S	00	06	12	18		
Region I - SEYCHELLES																						
63994		DESROCHES	05 41S	53 04E	3	3	X	X	X	X	X	X	X	X			.	.	.	.		
Region II - JAPAN																						
47426	P	URAKAWA	42 10N	142 47E	37	33		X	X	X	X	X	X*	X	X	H00-24	.	.	.	.	C;CLIMAT(C);PH;SEA/SWELL;SEISMO;SOLRA;*AUT	
47487		NEW CHITOSE AIRPORT	42 46N	141 42E	24	21		.	.	.	.	.	.	.	.	S00-24	.	.	.	.	A;METAR;RSD	
47573		NIIGATA AIRPORT	37 57N	139 07E	4	1		.	.	.	.	.	.	.	.	H20-11	.	.	.	.	A;METAR	
47782		NANKISHIRAHAMA AIRPORT	33 40N	135 22E	93	90		.	.	.	.	.	.	.	.	H22-10	.	.	.	.	A;METAR	
																S2130						
47807	P	FUKUOKA	33 35N	130 23E	15	3		X	X	X	X	X	X*	X	X	H00-24	RW	W	RW	W	WT;CLIMAT(CT);EVAP;PH;SEISMO;	
																					SOLRA;TI/WA/FC;*AUT;RADSAMP	
47813		SAGA	33 16N	130 18E	32	4		X	X*	X	X*	X	X*	X*	X*	H00-24	.	.	.	.	PH;SEISMO;SOLRA;TIDE;*AUT	
Region III - GUYANA																						
81002		TIMEHRI/CHEDDI JAGAN INTERNATIONAL (EFFECTIVE 22 MAY 97)																				
81080		KAIETEUR FALLS 1)	05 11N	59 29W	439	438		.	.	.	.	X	X	X	X		.	.	.	.	A;EVAP;SUNDUR	SMGY01 SYTM

1) STATION STARTED TRANSMITTING REAL TIME AS FROM 22.1.97

Region III - ISLANDS																						
88889		MOUNT PLEASANT AIRPORT	51 49S	59 36W	73	74		X	X	X	X	X	X	X	X	H00-24	RW	RW	RW	RW	A;CLIMAT(T)	
88903	_	GRYTVIKEN, SOUTH																				
		GEORGIA	54 16S	36 30W	3	-		.	.	.	.	X	X	X	X		.	.	.	.	STAFF PERMITTING	
Region V - AUSTRALIA (LAT. 10 S - 15 S)																						
94120	P	DARWIN AIRPORT														S00-24	RW	W	RW	W	A;AUT;EVAP;METAR;CLIMAT(CT);RAD;SOILTEMP;SUNDUR	
94170		WEIPA AMO														S00-24	P	P	P	P	WR;A;C;METAR;M/B;RSD	
Region V - AUSTRALIA (LAT. 15 S - 20 S)																						
94203	P	BROOME AIRPORT														S00-24	RW	W	RW1)	W	A;AUT;EVAP;METAR;CLIMAT(CT);RAD;SOILTEMP;SUNDUR	
94212	P	HALLS CREEK AIRPORT														S00-24	W	W	W	.	A;METAR;CLIMAT(C);EVAP;SOILTEMP;AUT	
94238		TENNANT CREEK AIRPORT															W	W	W	W1)	WR;A;METAR;CLIMAT(C);EVAP;LIT;M/B;SOILTEMP;SUNDUR	
Region V - A58AUSTRALIA (LAT. 20 S - 25 S)																						
94332	P	MOUNT ISA AMO														H17-12	RW	W	RW1)	W	WR;A;METAR;CLIMAT(CT);EVAP;M/B;SPECI;SUNDUR	
94346		LONGREACH AIRPORT															W	W	W11)	W12)	WR;A;METAR;CLIMAT(C);EVAP;M/B;RAD	
94367		MACKAY MO															W	W	W11)	W12)	WR;C;CLIMAT(C);EVAP;M/B;RSD;SEA;SUNDUR	
Region V - AUSTRALIA (LAT. 25 S - 30 S)																						

Index No.		Name of Station	Position Latitude	Position 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	Other Observations and Remarks	Bulletins
94403	P	GERALDTON AIRPORT														S00-24	RW	W	RW2)	W	A;METAR;CLIMAT(CT);EVAP;RAD;AUT;SOILTEMP	
94510	P	CHARLEVILLE AIRPORT														S00-24	RW	RW	RW3)	W	A;METAR;EVAP;AUT;SOILTEMP;SUNDUR	
94578	P	BRISBANE AIRPORT M.O.														S00-24	RW	W	RW	W	A;METAR;EVAP;SOILTEMP;SUNDUR;AUT	
Region V - AUSTRALIA (LAT. 30 S - 35 S)																						
94610	P	BELMONT PERTH AIRPORT														S00-24	RW	W	RW	W	METAR;CLIMAT(CT);EVAP;OZONE;SOILTEMP;SUNDUR	
94637	P	KALGOORLIE-BOULDER AMO														S00-24	RW	W	RW4)	W	A;EVAP;AUT;SOILTEMP	
94638	P	ESPERANCE MO														H16-12	RW	W	RW6)	W	EVAP;SOILTEMP;AUT	
94653		CEDUNA AIRPORT															W	W	W13)	W12)	WR;A;C;METAR;CLIMAT(C);EVAP;LIT;M/B;SUNDUR	
94659	P	WOOMERA AERODROME														H17-12	RW	W	RW7)	W	WR;A;METAR;CLIMAT(CT);EVAP;M/B;RAD;RSD;SUNDUR	
94672	P	ADELAIDE AIRPORT														S00-24	RW	W	RW	W	A;AUT;EVAP;METAR;SOILTEMP;SUNDUR	
94750	P	NOWRA RAN AIR STATION														H00-24	RW8)	RW8)	RW8)	RW8)	WR;A;C;METAR;LIT;M/B;SOILTEMP;SUNDUR	
94791	P	COFFS HARBOUR MO														H17-11	RW9)	W	W10)	W11)	A;AUT;CLIMAT(C);EVAP;SOILTEMP;SUNDUR	
94802	P	ALBANY AIRPORT														S00-24	RW	W	RW7)	W	A;METAR;CLIMAT(CT);EVAP;AUT;SOILTEMP;SUNDUR	
Region V - AUSTRALIA (LAT. 35 S - 40 S)																						
94907	P	EAST SALE AERODROME														H17-12	W	W	W	W	A;C;METAR;CLIMAT(C);EVAP;M/B;SOILTEMP;SUNDUR	
Region V - AUSTRALIA (LAT. 40 S - 45 S)																						
94975	P	HOBART AIRPORT														H00-24	RW	W	RW	W	WR;A;C;METAR;CLIMAT(CT);M/B;OZONE;RAD;SUNDUR	
Region V - AUSTRALIA (ADDITIONAL ISLANDS)																						
94995	P	LORD HOWE ISLAND														H17-12	RW	W	RW6)	W	A;AUT;C;CLIMAT(CT);	

1) Not on 1,3,4,6,7
2) Not on 1,3,5,6,7
3) Not on 2,3,5,6,7
4) Not on 1,2,4,5,7
6) Not on 1,2,3,5,6
7) Not on 2,3,4,6,7
8) R and W irregular
9) Not on 2,4,5,6,7
10) Not on 4,6
11) Not on 2
12) Not on 6
13) Not on 2,3

Index No.		Name of Station	Position		Elevation		Pressure Level	Surface Observations								OBS. H	Upper-air				Other Observations and Remarks	Bulletins
			Latitude	Longitude	HP	H/HA		00	03	06	09	12	15	18	21	OBS.S	00	06	12	18		
Region VI - NORWAY																						
01033		TORSVAG FYR	70 15N	19 30E	24	21		X	X	X	X	X	X	X	X		.	.	.	.	MAN/AUT;C;SEA	SM/SINO43
01041		NORDREISA-OYENG	69 44N	21 01E		5		.	.	X	.	X	.	X	.		.	.	.	.		NATIONAL
01047		KAUTOKEINO	69 00N	23 02E	307	307		X	.	X	X	X	X	X	.		.	.	.	.		SM/SINO44
01065		KARASJOK	69 28N	25 31E	133	129		.	.	X	.	X	.	X	.		.	.	.	.		SM/SINO44
01078	P	SLETNES FYR	71 06N	28 13E	10	8		X	X	X	X	X	X	X	X		.	.	.	.	MAN/AUT;C;SEA;SEATEMP	SMNO12/
																						SINO22
01122		MOSJOEN KJAERSTAD	65,47N	13,13E	73	73		.	.	.	.	.	.	.	.	H A/R	.	.	.	.	A	
01152		BODO (UPPER-AIR STATION)	67,15N	14,22E	20	20		.	.	.	.	.	.	.	.		RW	.	RW	.	WT;C;CLIMAT(T)	
01160		SKROVA FYR	68 09N	14 39E		11		X	X	X	X	X	X	X	X		.	.	.	.	MAN/AUT;C;SEA;SEATEMP	SM/SINO43
01162		STOKMARKNES/SKAGEN	68 35N	15 01E	3	3		.	.	.	.	.	.	.	.	H A/R	.	.	.	.	A;C	
01292		MERAKER-UTSYN	63 25N	11 46E	240	239		.	.	X	.	X	.	X	.		.	.	.	.		SM/SINO44
01341		EIDFJORD-BU	60 28N	06 52E	166	165		.	.	X	X	X	.	X	.		.	.	.	.		SM/SINO45
01355		LAERDAL-MOLDO	61 04N	07 31E	36	36		.	.	X	.	X	.	X	.		.	.	.	.		SM/SINO45
01427	P	LISTA FYR	58 07N	06 34E	14	14		X	X	X	X	X	X	X	X		.	.	.	.	MAN/AUT;C;SEA	SM/SINO43
01452	P	KRISTIANSAND/KJEVIK	58 12N	08 05E	17	17		X	X	X	X	X	X	X	X	S05-23	.	.	.	.	MAN/AUT	SM/SINO43
01475		SKIEN-GEITERYGGEN	59 11N	09 34E	141	141		.	.	.	.	.	.	.	.	H A/R	.	.	.	.	A	
01492		OSLO-BLINDERN	59 57N	10 43E	96	94		X	X	X	X	X	X	X	X		.	.	.	.	MAN/AUT	SM/SINO44
01496		HOLAND-FOSSER	59 49N	11 29E	154	152		.	.	X	.	X	.	X	.		.	.	.	.		SM/SINO45
Region VI - DENMARK AND FAROE ISLANDS																						
06100		VANDEL	55 42N	09 12E	76	73		.	.	X*	X*	X*	X*	X*	X*	S#	.	.	.	.	W/D;A;*IRREG;#METAR/SPECI A/R	
Region VI - UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND / ROYAUME-UNI DE GRANDE-BRETAGNE ET D'IRLANDE DU NORD																						
03005	P	LERWICK	60 08N	01 11W	84	82		X	X	X	X	X	X	X	X	H00-24	RW	W	RW	W	WR;ATMEL;C;CLIMAT(CT);EARTH CURRENT;MAGNET;NOCTRA;	
																					OZONE;SEISMO;SFERIC;SKYRA;SOILTEMP;SOLRA;SUNDUR;	
																					TIDE;BAPMON;NLC;RADSAMP;SNOW	
03022	P	BENBECULA	57 28N	07 22W	-	6		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	METAR;SEMI-AUT;S08-13 ON 6;NLC;+ON 1-5	
																S08-16+						
03026	P	STORNOWAY	58 13N	06 19W	13	9		X	X	X	X	X	X	X	X	H00-24	RW	W	RW	W	WR;A;C;METAR;CLIMAT(CT);BAPMON;NLC;SNOW;	
																S06-17+					M/B;SFERIC;SUNDUR;TIDE;SKYRA;SOLRA;+NOT ON/SAUF 7	
03066	P	KINLOSS	57 39N	03 34W	-	7		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;C;CLIMAT(C);SOILTEMP;SUNDUR;NLC;SNOW;SEMI-AUT	
03068	P	LOSSIEMOUTH	57 43N	03 19W		13		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SEMI-AUT	
03136		PRESTWICK RNAS	55 31N	04 35W	20	26		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;SEMI-AUT	
03171	P	LEUCHARS	56 23N	02 52W	-	12		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SEMI-AUT	

Index No.		Name of Station	Position Latitude	Position 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	Other Observations and Remarks	Bulletins
03215		ASPATRIA	54 46N	03 19W	-	61		.	.	X	X	X	X+	X*	X	H08-12+	.	.	.	.	07 SUMMER ONLY 1-5;+08,15,16 NOT ON 6,7;*17 SUMMER ON 6&7	
																H15-18+						
03235		BOLTSHOPE PARK	54 49N	02 05W		434		.	.	07	X	X	X	X	X	H06-07+	.	.	.	.	+IN SUMMER;# IN WINTER	
																H07-08#						
03257		LEEMING	54 18N	01 32W		40		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;CLIMAT(C);M/B;METAR;SOILTEMP;AUR;NLC;SNOW;SEMI-AUT	
03302	P	VALLEY	53 15N	04 32W	-	11		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;C;CLIMAT(C);M/B;METAR;SEA;SUNDUR;SEMI-AUT	
03354	P	NOTTINGHAM	53 00N	01 15W	-	117		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	AUT	
03379		CRANWELL	53 02N	00 30W	-	66		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;SEMI-AUT	
03495	P	COLTISHALL	52 46N	01 21E	-	20		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;M/B;SEMI-AUT	
03502	P	ABERPORTH	52 08N	04 34W	134	133		X	X	X	X	X	X	X	X	H00-24	RW	RW	RW	RW	C;CLIMAT(C);SKYRA;SOLRA;WR(ADDITIONAL A/R 1-5);SEMI-AUT;	
																					SOIILTEMP;SUNDUR	
03590	P	WATTISHAM	52 07N	00 58E	-	87		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;M/B;SUNDUR;SEMI-AUT	
03605		PEMBREY SANDS	51 43N	04 22W		3		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	SEMI-AUT;*ON 1-5	
																S09-24*						
03693		SHOEBURYNESS	51 33N	00 50E	3	2		X	X	X	X	X	X	X	X	H00-24	.	RW+	RW+	.	WR;C;SEMI-AUT;+08&13	
03772	P	LONDON/HEATHROW																				
		AIRPORT	51 29N	00 27W	-	24		X	X	X	X	X	X	X	X	S00-24	.	.	.	.	A;METAR;SUNDUR;SEMI-AUT	
03808	P	CAMBORNE	50 13N	05 19W	88	87		X	X	X	X	X	X	X	X	H00-24	RW	W	RW	W	WR;CLIMAT(CT);SFERIC;SKYRA;SOLRA;SUNDUR;SEMI-AUT	
03827	P	PLYMOUTH	50 21N	04 07W	-	50		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;AUT	
03894	P	GUERNSEY AIRPORT	49 26N	02 36W	-	102		X	X	X	X	X	X	X	X	S03-21	.	.	.	.	A;METAR;SOILTEMP;SUNDUR	
03902		CORGARY	54 26N	08 03W	-	145		X*	.	X	X	X	X	X+	X	H12-15	.	.	.	.	SUNDUR;SNOW;*23 SUMMER;+WINTER ONLY	
03917	P	BELFAST/ALDERGROVE AIRP	54 39N	06 13W	-	81		X	X	X	X	X	X	X	X	S00-24	.	.	.	.	A;METAR;CLIMAT(C);EVAP;M/B;RAD;SOLRA;SKYRA;	
																					SOILTEMP;SUNDUR;NLC;RADSAMP	
03920	P	HILLSBOROUGH	54 29N	06 06W	38	37		X	X	X	X	X	X	X	X	H00-24	RW	RW	RW	RW	WR;SOILTEMP;SUNDUR	
Region VI - GERMANY																						
10200		EMDEN-FLUGPLATZ	53 23N	07 14E	1	0		.	.	.	.	.	.	.	.		RW	W	RW	W	WT;CLIMAT(CT)	
VI - SLOVAKIA																						
11816		BRATISLAVA-LETISKO			133	133																
11819		JASLOVSKE BOHUNICE			177	176																
11855		NITRA			135	135																
11916		CHOPOK			2008	2005																
11958		KOJSOVSKA HOLA			1243	1242																

Index No.		Name of Station	Position		Elevation		Pressure Level	Surface Observations								OBS. H	Upper-air				Other Observations and Remarks	Bulletins
			Latitude	Longitude	HP	H/HA		00	03	06	09	12	15	18	21	OBS.S	00	06	12	18		
Region VI - BULGARIA																						
15614	P	SOFIA (OBSERV.)	42 39N	23 23E	595	586		X	X	X	X	X	X	X	X	H00-24	RW	.	W	.	CLIMAT(CT);EVAP;M/B;SKYRA;SOILTEMP;SUNDUR;TOTRA	
Region VI - TURKEY																						
17022	P	ZONGULDAK	41 27N	31 48E	137	137		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);PH;SEA;EVAP;SOILTEMP;SOLRA;SUNDUR	
17024	P	INEBOLU	41 59N	33 47E	64	64		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SUNDUR	
17026	P	SINOP	42 01N	35 10E	32	32		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17029		SAMSUN/MEYDAN	41 17N	36 20E	168	165		.	.	.	.	.	.	.	.	H06-15	.	.	.	.	A;METAR;SPECI	
17030	P	SAMSUN	41 17N	36 18E	4	4		X	X	X	X	X	X	X	X	H00-24	RW	.	RW	.	C;CLIMAT(CT);EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17034	_	GIRESUN	40 55N	38 23E	37	37		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;CLIMAT(C);EVAP;PH;SEA;SEATEMP;SOILTEMP	
17038	P	TRABZON	41 00N	39 43E	34	29		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;EVAP;METAR;PH;SEA;SOILTEMP;SOLRA;SPECI;SUNDUR	
17042	P	HOPA	41 24N	41 26E	33	33		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SUNDUR	
17045		ARTVIN	41 11N	41 49E	628	628		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	PH;SOILTEMP	
17050	P	EDIRNE	41 40N	26 34E	51	51		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17052		KIRKLARELI	41 44N	27 14E	232	232		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;SOILTEMP;PH	
17056	P	TEKIRDAG	40 59N	27 33E	3	3		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17059	_	KUMKOY	41 15N	29 02E	30	30		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP	
17060	P	ISTANBUL/ATATURK	40 58N	28 49E	37	48		X	X	X	X	X	X	X	X	S00-24	.	.	.	.	A;METAR;SOILTEMP;SPECI	
17062		ISTANBUL/GOZTEPE	40 58N	29 05E	33	33		X	X	X	X	X	X	X	X	H00-24	RW	.	RW	.	C;CLIMAT(CT);EVAP;SOILTEMP;SOLRA;SUNDUR	
17067	P	GOLCUK/DUMLUPINAR	40 40N	29 50E	18	18		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17068		CENGIZ TOPEL	40 51N	29 54E	70	54		.	.	X	X	X	X	.	.	H06-15	.	.	.	.	A;METAR;SPECI	
17069		ADAPAZARI	40 47N	30 25E	30	30		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17070	P	BOLU	40 44N	31 36E	743	743		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17074	_	KASTAMONU	41 22N	33 47E	800	800		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17082	P	MERZIFON	40 51N	35 35E	535	544		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SOILTEMP;SPECI	
17084	P	CORUM	40 33N	34 57E	776	776		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17085		AMASYA	40 39N	35 51E	412	412		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17086		TOKAT	40 18N	36 34E	608	608		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17088	_	GUMUSHANE	40 28N	39 28E	1219	1219	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17090	P	SIVAS	39 45N	37 01E	1285	1285	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17092	P	ERZINCAN	39 45N	39 30E	1218	1218	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17096	P	ERZURUM	39 57N	41 10E	1758	1755	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;CLIMAT(C);METAR;PH;SOILTEMP;SOLRA;SPECI;SUNDUR	
17098	_	KARS	40 37N	43 06E	1775	1775	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17099		AGRI	39 44N	43 03E	1632	1632	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP	
17100	_	IGDIR	39 55N	44 03E	858	858		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17110	P	GOKCEADA	40 11N	25 54E	72	42		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP	

Index No.		Name of Station	Position		Elevation		Pressure Level	Surface Observations								OBS. H OBS.S	Upper-air				Other Observations and Remarks	Bulletins
			Latitude	Longitude	HP	H/HA		00	03	06	09	12	15	18	21		00	06	12	18		
17112	P	CANAKKALE	40 08N	26 24E	6	6		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;CLIMAT(C);EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17115	P	BANDIRMA	40 19N	27 58E	42	51		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17116	P	BURSA	40 11N	29 04E	100	100		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17124	P	ESKISEHIR	39 47N	30 34E	786	786		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;PH;SPECI	
17128	P	ESENBOGA	40 07N	33 00E	949	953		X	X	X	X	X	X	X	X	S00-24	.	.	.	.	A;EVAP;METAR;SPECI;SOILTEMP;SUNDUR	
17129	P	ETIMESGUT	39 57N	32 41E	806	799		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17130	P	ANKARA/CENTRAL	39 57N	32 53E	891	891		X	X	X	X	X	X	X	X	H00-24	RW	.	RW	.	CLIMAT(CT);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17140		YOZGAT	39 49N	34 48E	1298	1298	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17150	P	BALIKESIR	39 37N	27 55E	102	103		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17160		KIRSEHIR	39 09N	34 10E	1007	1000	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17162		GEMEREK	39 11N	36 04E	1171	1171	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17170	P	VAN	38 27N	43 19E	1662	1669	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;CLIMAT(C);METAR;PH;SOLRA;SPECI;SUNDUR	
17180	P	DIKILI	39 04N	26 53E	3	3		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17184	P	AKHISAR	38 55N	27 51E	93	93		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17186		MANISA	38 37N	27 26E	71	71		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17188	P	USAK	38 41N	29 24E	919	919		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17190	P	AFYON	38 45N	30 32E	1034	1034	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17193		NEVSEHIR	38 37N	34 42E	1260	1260	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	PH;SOILTEMP;SOLRA;SUNDUR	
17195	P	KAYSERI/ERKILET	38 49N	35 26E	1054	1055	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17200	P	MALATYA/ERHAC	38 26N	38 05E	849	862		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17202	P	ELAZIG	38 36N	39 17E	881	902		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17203		BINGOL	38 52N	40 30E	1177	1177	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17204		MUS	38 44N	41 31E	1320	1320	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17205		TATVAN	38 29N	42 18E	1665	1665	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SEA;SOILTEMP;SOLRA;SUNDUR	
17210		SIIRT	37 55N	41 57E	896	890		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17218		IZMIR/CIGLI	38 31N	27 01E	5	5		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17219	P	IZMIR/A. MENDERES	38 16N	27 09E	120	125		X	X	X	X	X	X	X	X	S00-24	.	.	.	.	A;METAR;SPECI	
17220	P	IZMIR/GUZELYALI	38 26N	27 10E	29	25		X	X	X	X	X	X	X	X	H00-24	RW	.	RW	.	C;CLIMAT(CT);EVAP;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17234	P	AYDIN	37 51N	27 51E	56	55		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17237		DENIZLI	37 47N	29 05E	425	425		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17240	P	ISPARTA	37 45N	30 33E	997	997		X	X	X	X	X	X	X	X	H00-24	RW	.	RW	.	CLIMAT(CT);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17244	P	KONYA	37 58N	32 33E	1031	1032	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;CLIMAT(C);EVAP;METAR;PH;SPECI;SOILTEMP;SOLRA;SUNDUR	
17248		EREGLI/KONYA	37 30N	34 03E	1044	1044	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17250		NIGDE	37 58N	34 41E	1210	1208	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17255		KAHRAMANMARAS	37 36N	36 56E	572	572		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	

Index No.		Name of Station	Position		Elevation		Pressure Level	Surface Observations								OBS. H OBS.S	Upper-air				Other Observations and Remarks	Bulletins
			Latitude	Longitude	HP	H/HA		00	03	06	09	12	15	18	21		00	06	12	18		
17260	P	GAZIANTEP	37 05N	37 22E	701	705		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17270	_	SANLIURFA	37 08N	38 46E	549	549		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17275		MARDIN	37 18N	40 44E	1050	1050	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	PH;SOILTEMP	
17280	P	DIYARBAKIR	37 53N	40 12E	677	687		X	X	X	X	X	X	X	X	H00-24	RW	.	RW	.	A;METAR;CLIMAT(CT);SPECI;EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17282		BATMAN	37 53N	41 07E	540	545		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;EVAP;PH;SPECI;SOILTEMP;SOLRA;SUNDUR	
17285	_	HAKKARI	37 34N	43 46E	1728	1728	850 hPa	X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17290	P	BODRUM	37 02N	27 26E	26	15		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17292	P	MUGLA	37 13N	28 22E	646	646		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17295		DALAMAN	36 42N	28 47E	9	7		X	X	X	X	X	X	X	X	S00-24	.	.	.	.	A;METAR;SPECI	
17298		MARMARIS	36 51N	28 16E	16	5		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17300	P	ANTALYA	36 42N	30 44E	54	51		X	X	X	X	X	X	X	X	S00-24	.	.	.	.	A;METAR;CLIMAT(C);EVAP;PH;SPECI;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17320	_	ANAMUR	36 05N	32 50E	4	3		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17330	P	SILIFKE	36 23N	33 56E	15	15		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17340		MERSIN	36 48N	34 38E	3	3		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;CLIMAT(C);EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17350	P	ADANA/INCIRLIK	37 00N	35 25E	66	73		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17351	P	ADANA/BOLGE	36 59N	35 21E	27	27		.	.	.	.	.	.	.	.	H00-24	RW	.	RW	.	CLIMAT(CT);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17352		ADANA/SAKIRPASA	36 59N	35 18E	20	20		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17370	P	ISKENDERUN	36 35N	36 10E	4	4		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17375	_	FINIKE	36 18N	30 09E	2	2		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	

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Deleted stations

Index No.		Name of Station	Position		Elevation		Pressure Level	Surface Observations								OBS. H	Upper-air				Other Observations and Remarks	Bulletins
			Latitude	Longitude	HP	H/HA		00	03	06	09	12	15	18	21	OBS.S	00	06	12	18		
REGIO II - JAPAN																						
47601		HEGURASHIMA	37 51N	136 55E	14	12		.	.	.	.	.	.	.	.		.	.	.	.	LH	
47700		SADO AIRPORT	38 03N	138 25E	26	23		.	.	.	.	.	.	.	.	H00-07	.	.	.	.	A;METAR	
III - ISLANDS																						
88880		WEST POINT ISLAND																				
88882		WEDDELL ISLAND																				
88884		FOX BAY																				
REGION VI - NORWAY																						
01137		STOTT	66 56N	13 27E		12		.	X	X	.	X	.	X	.		.	.	.	.	C	SM/SINO45
01426		LISTA FYR	58 07N	06 34E	14			X	X	X	X	X	X	X	X		.	.	.	.	AUT	NATIONAL
01453		KRISTIANSAND/KJEVIK	58 13N	08 05E	16			X	X	X	X	X	X	X	X		.	.	.	.	AUT	NATIONAL
REGION VI - UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND / ROYAUME-UNI DE GRANDE-BRETAGNE ET D'IRLANDE DU NORD																						
03001		MUCKLE FLUGGA	60 51N	00 53W	-	53		X	X	X	X	X	X	X	X		.	.	.	.	C;LH;SEA	
03121		KILDONAN	55 26N	05 06W		18		.	.	08	X	X	.	X	.		.	.	.	.	C;SUNDUR	
03137		WHITHORN	54 42N	04 25W		40		.	.	.	X	X	X	X	X		.	.	.	.	SUNDUR;NOT ON 6,7	
03165		SPADEADAM	55 03N	02 33W		325		.	.	.	X	X	X	X	.	H08-20	.	.	.	.	NOT ON 6,7	
03168		GALASHIELS	55 36N	02 54W		146		.	.	.	X	X	X	.	.		.	.	.	.	NOT ON 6,7	
03242		BURNHOPE	54 49N	01 43W		240		.	.	.	08	X	16	.	.		.	.	.	.	SNOW	
											1)		2)									
03318	P	BLACKPOOL AIRPORT	53 46N	03 02W	-	10		.	.	X	X	X	X	X	.	H06-20	.	.	.	.	A;METAR;SUNDUR	
																S0530-						
																20						
03338		CELLARHEAD	53 02N	02 05W	-	228		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	SEMI-AUT	
03525		MALVERN	52 05N	02 18W	53	53		.	.	.	.	.	.	.	.		.	.	.	.	R A/R	
03607		PENDINE	51 45N	04 31W	-	5		.	.	.	X	X	X*	.	.	H08-15*	.	.	.	.	NOT ON 6,7;C;*ON 1-4; +ON 5	
																08-14+						
03700		ST. GOWAN L.V.	51 30N	05 00W		5		.	.	X	.	.	X	.	.		.	.	.	.	L;SEA/SWELL;SEATEMP	
03789		JUBILEE CORNER	51 11N	00 38E	-	47		.	.	X	X	.	.	.	X		.	.	.	.	SUNDUR	
03924		BELFAST/HARBOUR	54 36N	05 53W	-	5		.	.	.	X	X	X	.	.	H09-16+	.	.	.	.	A;+ON 1-5;IRREG. ON 6,7	

Publication No. 9, Volume A - Observing Stations
New stations

Index No.		Name of Station	Position		Elevation		Pressure Level	Surface Observations								OBS. H	Upper-air				Other Observations and Remarks	Bulletins
			Latitude	Longitude	HP	H/HA		00	03	06	09	12	15	18	21	OBS.S	00	06	12	18		
Region III - ISLANDS																						
88878		PEBBLE ISLAND	51 19S	59 36W	16	-		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	AUT	
88883		WEDDELL ISLAND	51 54S	60 55W	17	-		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	AUT	
88897		SEA LION ISLAND	52 26S	59 05W	15	-		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	AUT	
Region VI - NORWAY																						
01245		OPPDAL-MAURHAUGEN	62 48N	09 41E	671			.	.	X	.	X	.	X	.							SM/SINO45
01257		TRONDHEIM/VOLL	63 25N	10 27E	127			X	X	X	X	X	X	X	X						AUT	NATIONAL
Region VI - UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND / ROYAUME-UNI DE GRANDE-BRETAGNE ET D'IRLANDE DU NORD																						
03208		POINT OF AYRE	54 25N	04 22W	-	9		X	X	X	X	X	X	X	X		.	.	.	.	C;AUT	
03265		TOPCLIFFE	54 12N	01 23W	28	25		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	AUT	
03391	P	CONINGSBY	53 05N	00 10W	-	7		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;M/B;SEMI-AUT	
03857		ISLE OF PORTLAND	50 31N	02 27W	-	52		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;SEMI-AUT	
03900		KNOCKAREVAN	54 25N	08 05W	-	50		.	.	.	X	10	.	X	.	H09-10	.	.	.	.	PLUS 08 IN SUMMER, 11 IN WINTER	
Region VI - DENMARK AND FAROE ISLANDS																						
06075		AARHUS HAVN	56 10N	10 13E	15	2		X	X	X	X	X	X	X	X	H00-24*	.	.	.	.	*AUT;C	
Region VI -TURKEY																						
17033		ORDU	40 59N	37 54E	4	4		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;PH;SEA;SEATEMP;EVAP;SOILTEMP;SUNDUR	
17040		RIZE	41 02N	40 31E	9	9		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;CLIMAT(C);EVAP;PH;SEA;SEATEMP;SOILTEMP;	
																					SOLRA;SUNDUR	
17061		SARIYER	41 08N	29 04E	58	30		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;SEA;SOILTEMP	
17080		CANKIRI	40 36N	33 37E	751	751		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17120		BILECIK	40 09N	29 58E	539	539		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17127		AKINCI	40 04N	32 34E	840	843		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17131		GUVERCINLIK	39 56N	32 45E	823	820		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	A;METAR;SPECI	
17135		KIRIKKALE	39 51N	33 31E	748	748		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17145		EDREMIT	39 35N	27 01E	21	21		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17175		AYVALIK	39 18N	26 42E	4	4		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17199		MALATYA/BOLGE	38 21N	38 19E	948	948		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	CLIMAT(C);EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17232		KUSADASI	37 52N	27 15E	22	20		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	
17238		BURDUR	37 40N	30 20E	967	967		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17265		ADIYAMAN	37 45N	38 17E	672	672		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	EVAP;PH;SOILTEMP;SOLRA;SUNDUR	
17310		ALANYA	36 33N	32 00E	6	6		X	X	X	X	X	X	X	X	H00-24	.	.	.	.	C;EVAP;PH;SEA;SEATEMP;SOILTEMP;SOLRA;SUNDUR	

AUTOMATIC MARINE STATIONS

KEY: Observed or Technical Parameters

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

ARGOS SERVICE

ARGOS Monthly Status Report

Date of statistics computation:
8 April 1997

• Reports handled by ARGOS Service
(list of monthly collected ARGOS platforms sorted by type of platform)

Drifting Buoys	1192
Boats (<20 knots)	-
Marine Stations	191
Moored Buoys	293
Fixed Stations	525
Marine Animals	118
Terrestrial Animals	63
Birds	113
Balloons	7
TOTAL:	**2502**

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

Inserted by RTH Toulouse:

Drifting Buoys	97
Fixed Stations	20
Moored Buoys	6
XBT Ships	11

Inserted by RTH/WMC Washington:

Drifting Buoys	587
Fixed Stations	43
Moored Buoys	59
XBT Ships	-

•Coding statistics of platforms
reporting through ARGOS and distributed over the GTS:

BATHY	271
BUOY	205099
SHIP:	375
SYNOP:	30757
TOTAL:	**236502**

CANADA

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

WMO Buoy Identifier	ARGOS Identifier	Position: 10 March 1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
46004	7194	50 58' N	135 48' W	X	X	X	X	X	X	X	N/A	-	-	-
46036	7180	48 21' N	133 55' W	X	X	X	X	X	X	X	N/A	-	-	-
46131	4484	49 54' N	124 59' W	X	X	X	X	X	X	X	N/A	-	-	-
46132	7197	49 44' N	127 55' W	X	X	X	X	X	X	X	N/A	-	-	-
46145	4485	54 23' N	132 26' W	X	X	X	X	X	X	X	N/A	-	-	-
46146	7196	49 20' N	123 44' W	X	X	X	X	X	X	X	N/A	-	-	-
46147	N/A	51 49' N	131 12' W	X	X	X	X	X	X	X	N/A	-	-	-
46181	7187	53 50' N	128 50' W	*	*	*	*	*	*	*	N/A	-	-	-
46183	8678	53 37' N	131 06' W	X	X	X	X	X	X	X	N/A	-	-	-
46184	7182	53 54' N	138 52' W	X	X	X	X	X	X	X	N/A	-	-	-
46185	8677	52 24' N	129 47' W	X	X	X	X	X	X	X	N/A	-	-	-
46204	7192	51 22' N	128 45' W	X	X	X	X	X	X	X	N/A	-	-	-
46205	7183	54 10' N	134 20' W	X	X	X	X	X	X	X	N/A	-	-	-
46206	7184	48 50' N	126 00' W	X	X	X	X	X	X	X	N/A	-	-	-
46207	7193	50 52' N	129 55' W	X	X	X	X	X	X	X	N/A	-	-	-
46208	7186	52 30' N	132 42' W	*	X	X	X	X	X	X	N/A	-	-	-

North-west Atlantic Ocean

WMO Buoy Identifier	ARGOS Identifier	Position: 10 March 1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
44131	N/A	44 30' N	066 47' W	*	*	*	*	*	*	*	N/A	-	-	-
44137	5579	41 39' N	059 57' W	X	X	X	X	X	X	X	N/A	-	-	-
44138	5577	44 16' N	053 37' W	X	X	X	X	X	X	X	N/A	-	-	-
44139	3448	44 08' N	057 38' W	*	*	*	*	*	*	*	N/A	-	-	-
44140	5576	42 51' N	051 34' W	.	.	.	.	.	.	.	N/A	-	-	-
44141	3449	42 04' N	056 09' W	X	X	X	X	X	X	X	N/A	-	-	-
44142	5578	42 27' N	064 06' W	X	X	X	X	X	X	X	N/A	-	-	-

Great Slave Lake, Lake Winnipeg, Great Lakes, Gulf of St. Lawrence

WMO Buoy Identifier	ARGOS Identifier	Position: 10 March 1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
45132	N/A	42 28' N	081 13' W	.	.	.	.	.	.	.	N/A	-	-	-
45135	N/A	43 47' N	076 52' W	X	X	X	X	X	X	X	N/A	-	-	-
45136	N/A	48 32' N	086 57' W	.	.	.	.	.	.	.	N/A	-	-	-
45137	N/A	45 33' N	081 01' W	.	.	.	.	.	.	.	N/A	-	-	-
45138	8249	49 32' N	065 44' W	.	.	.	.	.	.	.	N/A	-	-	-
45139	N/A	43 26' N	079 23' W	*	*	*	*	*	*	*	N/A	-	-	-
45140	3439	50 47' N	096 44' W	.	.	.	.	.	.	.	N/A	-	-	-
45141	N/A	61 11' N	115 19' W	.	.	.	.	.	.	.	N/A	-	-	-
45142	N/A	42 44' N	079 17' W	.	.	.	.	.	.	.	N/A	-	-	-
45144	8671	53 23' N	098 29' W	.	.	.	.	.	.	.	N/A	-	-	-

Drifting Buoys
Pacific Ocean

WMO Buoy Identifier	ARGOS Identifier	Position: 10 March 1997		Observed or Technical Parameters												
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11	12	13
7140	46695	51.0	-143.4	-	F	X	X	X	-	-	-	-	-	-	X	-
8673	46707	45.9	-139.1	X	X	X	X	X	-	-	-	-	-	-	X	-
8674	46701	48.4	-163.3	X	X	X	X	X	-	-	-	-	-	-	X	-
12511	46641	48.3	-158.8	-	X	X	X	X	-	-	-	-	-	-	-	-

44131,44139,44181, 45139, stopped transmitting.
44140,45132,45136,45137,45142,45138,45140,45144,45141, removed for the Winter.

* Sensor/System failure

UNITED STATES OF AMERICA

List of U.S.A. Ocean Data Acquisition Systems (ODAS) included on **2 May 1997** 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.

Moored Buoys

WMO Buoy Identifier	ARGOS Identifier	Position: 24/4-2/5/1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
41001*		34.68N	72.64W	X	X	X	-	X	X	X	-	-	-	-
41002*		32.27N	75.19W	X	X	X	-	X	X	X	-	-	-	-
41004		32.51N	79.10W	X	X	X	-	S	X	X	-	-	-	-
41009		28.50N	80.18W	X	X	X	-	X	X	X	-	-	-	-
41010		28.90N	78.53W	X	X	X	-	X	X	X	-	-	-	-
42001*		25.93N	89.65W	X	X	X	-	X	X	X	-	-	-	-
42002*		25.89N	93.57W	X	X	X	-	X	X	X	-	-	-	-
42003*		25.94N	85.91W	S	S	S	-	S	S	S	-	-	-	-
42007		30.09N	88.77W	X	X	X	-	X	X	X	-	-	-	-
42019		27.90N	95.00W	X	X	X	-	S	X	X	-	-	-	-
42035		29.25N	94.41W	S	X	X	-	X	X	X	-	-	-	-
42036		28.51N	84.51W	X	X	X	-	X	X	X	-	-	-	-
42039		28.78N	86.04W	X	S	X	-	X	X	X	-	-	-	-
42040		29.20N	88.25W	X	X	X	-	X	X	X	-	-	-	-
44004*		38.46N	70.69W	X	X	X	-	X	S	S	-	-	-	-
44005*		42.90N	68.94W	R	R	R	-	R	R	R	-	-	-	-
44007		43.53N	70.14W	X	X	X	-	X	X	X	-	-	-	-
44008*		40.50N	69.43W	S	S	S	-	S	S	S	-	-	-	-
44009*		38.46N	74.70W	X	X	X	-	X	X	X	-	-	-	-
44011*		41.08N	66.58W	X	X	X	-	X	X	X	-	-	-	-
44013		42.35N	70.69W	X	X	X	-	X	X	X	-	-	-	-
44014		36.58N	74.83W	X	X	X	-	X	X	X	-	-	-	-
44025		40.25N	73.17W	X	X	X	-	X	X	X	-	-	-	-
44028*		41.40N	71.08W	D	D	D	-	D	D	D	-	-	-	-
45001*		48.06N	87.78W	X	X	X	-	X	X	X	-	-	-	-
45002*		45.30N	86.42W	X	X	X	-	X	X	X	-	-	-	-
45003*		45.32N	82.77W	X	X	X	-	X	X	X	-	-	-	-
45004*		47.56N	86.55W	X	X	X	-	X	X	X	-	-	-	-
45005*		41.68N	82.40W	X	X	X	-	X	X	X	-	-	-	-
45006*		47.32N	89.87W	X	X	X	-	X	X	X	-	-	-	-
45007*		42.68N	87.03W	X	X	X	-	X	X	X	-	-	-	-
45008*		44.28N	82.42W	X	X	X	-	X	X	X	-	-	-	-
46001*		56.29N	48.18W	X	X	S	-	X	X	X	-	-	-	-
46002*		42.53N	30.26W	X	X	X	-	X	X	X	-	-	-	-
46003*		51.85N	55.92W	X	X	X	-	X	X	X	-	-	-	-
46005*		46.08N	31.00W	X	X	X	-	X	X	X	-	-	-	-
46006*		40.87N	37.54W	X	X	X	-	X	X	X	-	-	-	-
46011		34.88N	20.87W	X	X	X	-	X	X	X	-	-	-	-
46012		37.39N	22.73W	X	X	X	-	S	X	X	-	-	-	-
46013		38.23N	23.30W	X	X	X	-	S	X	X	-	-	-	-
46014		39.22N	23.97W	X	X	X	-	X	X	X	-	-	-	-
46022		40.74N	24.51W	X	X	X	-	X	X	X	-	-	-	-
46025		33.75N	19.07W	X	X	X	-	X	X	X	-	-	-	-
46026*		37.75N	22.82W	X	X	X	-	X	X	X	-	-	-	-
46027		41.85N	24.39W	X	X	X	-	X	X	X	-	-	-	-
46028		35.74N	21.88W	X	X	X	-	X	X	X	-	-	-	-
46029*		46.18N	24.19W	X	X	X	-	X	X	X	-	-	-	-
46030		40.42N	24.53W	X	X	X	-	X	X	X	-	-	-	-
46035		56.91N	77.81W	X	X	X	-	X	X	X	-	-	-	-
46041		47.42N	24.52W	X	S	X	-	X	X	X	-	-	-	-
46042		36.75N	22.41W	X	S	X	-	X	X	X	-	-	-	-
46045		33.84N	18.45W	S	X	X	-	X	X	X	-	-	-	-
46054		34.27N	20.45W	X	X	X	-	X	X	X	-	-	-	-

WMO Buoy Identifier	ARGOS Identifier	Position: 24/4-2/5/1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
46059		37.98N	30.00W	X	X	X	-	X	X	X	-	-	-	-
46060		60.58N	46.83W	X	X	X	-	X	X	X	-	-	-	-
46061		60.22N	46.83W	X	S	X	-	X	X	X	-	-	-	-
51001*		23.40N	62.27W	X	X	X	-	X	X	X	-	-	-	-
51002*		17.19N	57.83W	X	X	X	-	X	X	X	-	-	-	-
51003*		19.14N	60.81W	X	X	X	-	X	X	X	-	-	-	-
51004*		17.44N	52.51W	X	X	X	-	S	X	X	-	-	-	-

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

Total Base Funded Buoys :	30
Total Other Buoys :	30
Total Moored Buoys :	60

Drifting Buoys

WMO Buoy Identifier	ARGOS Identifier	Position: 30/4-1/5/1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
17810	17182	20°S	040°W	N	S	B	-	X	N	N	N	-	-	-
41529	23637	39°N	033°W	S	X	X	-	S	N	N	N	-	-	-
41530	23641	35°N	030°W	X	X	X	-	X	N	N	N	-	-	-
41611	23635	15°N	056°W	X	X	X	-	X	N	N	N	-	-	-
41612	23638	17°N	057°W	X	X	X	-	X	N	N	N	-	-	-
41613	23642	21°N	062°W	X	X	X	-	X	N	N	N	-	-	-
46554	20712	33°N	132°W	S	X	X	-	X	N	N	N	-	-	-
54811	20713	37°S	096°W	N	X	X	-	X	N	N	N	-	-	-
54812	17178	28°S	125°W	N	X	X	-	X	N	N	N	-	-	-
54813	20717	34°S	096°W	N	X	X	-	X	N	N	N	-	-	-
54814	05127	29°S	148°W	N	X	X	-	X	N	N	N	-	-	-
56808	20720	35°S	055°E	N	X	X	-	X	N	N	N	-	-	-
56810	17185	24°S	038°E	N	S	X	-	X	N	N	N	-	-	-

339 drifting buoys were deployed in support of TOGA; 7 are operational

AUSTRALIA

Shipboard DCP

WMO Buoy Identifier	ARGOS Identifier	Position: 31 March 1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
55513	11581	-34.112	134.167	-	X	X	-	-	-	-	-	-	-	-
55515	11580	-4.271	152.283	-	X	X	-	-	-	-	-	-	-	-
55516	11527	29.355	47.925	-	X	X	-	-	-	-	-	-	-	-
55521	7866	-42.844	147.329	-	X	X	-	-	-	-	-	-	-	-
55524	11662	-54.216	82.736	-	X	X	-	-	-	-	-	-	-	-

Drifting Buoys Drogued

WMO Buoy Identifier	ARGOS Identifier	Position: 31 March 1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
52623	2946	-12.776	139.127	X	X	X	X	F	-	-	-	-	-	-
53548	17179	-20.339	81.252	-	X	X	-	X	-	-	-	-	-	-
56521	2934	-46.752	-148.965	-	-	F	-	X	-	-	-	-	-	-
56523	17183	3.703	47.013	-	X	X	-	S	-	-	-	-	-	-
56525	2933	-37.573	137.648	-	F	X	X	X	-	-	-	-	-	-
56529	4873	-19.788	104.379	-	-	X	-	X	-	-	-	-	-	-
56530	4871	-25.05	94.855	-	-	X	-	X	-	-	-	-	-	-
56531	4872	-32.2	87.791	-	-	X	-	X	-	-	-	-	-	-
56532	2949	-40.737	111.777	-	X	X	X	X	-	-	-	-	-	-
56533	2948	-47.37	132.61	-	X	X	X	X	-	-	-	-	-	-
56534	2944	-17.266	109.323	X	X	X	X	X	-	-	-	-	-	-
56535	2939	-54.903	74.825	-	X	X	X	X	-	-	-	-	-	-
74538	2938	-60.594	75.784	-	X	X	X	X	-	-	-	-	-	-

FRANCE

Moored Buoys

Removed:

WMO Buoy Identifier	ARGOS Identifier	Date
41097	05832	03.04.97
62163*	-	From 15.02.97 to 01.04.97

Complete Listing

WMO Buoy	ARGOS	Position: 16 April 1997		Observed or Technical Parameters										
Identifier	Identifier	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
41096	05833	16.5N	61.5W	-	-	-	-	X	X	.	-	-	-	-
62163*	-	47.5N	8.5W	X	X	X	X	X	X	-	-	-	X	-

* Cooperation UK Met. Office/Meteo-France

Drifting Buoys

Indian ocean

Removed:

WMO Buoy Identifier	ARGOS Identifier	Date
14535	10110	27.01.97

Complete Listing

WMO Buoy	ARGOS	Position: 16 April 1997		Observed or Technical Parameters										
Identifier	Identifier	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
14536	10112	39.6S	31.8E	-	-	X	X	X	-	-	-	-	-	-

North Atlantic

Removed:

WMO Buoy Identifier	ARGOS Identifier	Date
44602	05570	25.01.97
44603	05571	20.02.97
44604	05794	04.02.97
44606	27936	08.04.97
62510	05797	22.02.97
62513	05798	16.02.97
62517	10118	19.03.97
62551	27939	03.04.97

Complete Listing

WMO Buoy	ARGOS	Position: 16 April 1997		Observed or Technical Parameters										
Identifier	Identifier	Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
44601	05569	50.5N	45.0W	-	-	S	S	X	-	-	-	-	-	-
44605	27933	45.4N	37.4W	-	-	X	X	X	-	-	-	-	-	-
44607	27937	49.7N	32.6W	-	-	X	X	X	-	-	-	-	-	-
44608	27938	53.9N	27.2W	-	-	X	X	X	-	-	-	-	-	-
62503	14427	36.4N	16.2W	-	-	X	X	X	-	-	-	-	-	-
62507	05793	36.8N	19.1W	-	-	X	X	X	-	-	-	-	-	-
62508	05792	51.5N	13.4W	-	-	X	X	S	-	-	-	-	-	-
62515	14426	45.8N	14.9W	-	-	X	X	X	-	-	-	-	-	-
62518	15534	43.6N	16.8W	X	-	X	-	X	-	-	-	X	-	-
62552	03008	50.3N	19.6W	X	X	X	X	X	-	-	-	-	-	-
62553	03009	46.2N	20.0W	X	X	X	X	X	-	-	-	-	-	-
62554	14430	48.1N	20.6W	-	-	X	X	X	-	-	-	-	-	-
62555	27932	49.4N	19.7W	-	-	X	X	X	-	-	-	-	-	-
62556	27933	47.3N	20.2W	-	-	X	X	X	-	-	-	-	-	-
64517	15523	74.1N	8.2W	X	X	S	S	X	-	-	-	X	-	-

UNITED KINGDOM OF GREAT BRITAIN AND NORTHER IRELAND

K3 and Brittany have been replaced

Moored Buoys, Light Vessels, Islands and Fixed Platforms

WMO Buoy Identifier	ARGOS Identifier	Position: 17 March 1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
03007*	-	60°35'N	01°16'W	X	X	-	-	-	-	-	X	-	X	-
03010*	-	59°05'N	04°24'W	X	X	X	X	-	-	-	X	-	X	-
03011*	-	59°08'N	05°50'W	X	X	X	X	-	-	-	X	-	X	-
03014*	-	60°07'N	02°04'W	X	X	X	X	-	-	-	X	-	X	-
03695*	-	51°40'N	01°06'E	X	X	X	X	-	-	-	X	-	X	-
62026	21271	55°20'N	02°20'E	X	X	X	X	X	X	-	X	-	X	-
62029	06261	48°42'N	12°25'W	X	X	X	X	X	X	-	X	-	X	-
62081	06266	51°00'N	13°20'W	X	X	X	X	X	X	-	X	-	X	-
62101	-	50°37'N	02°44'W	X	X	X	X	X	X	-	X	-	X	-
62103**	-	49°55'N	02°54'W	X	X	X	X	X	X	-	X	-	X	-
62105	21268	55°37'N	12°41'W	X	X	X	X	X	X	-	X	-	X	-
62106	15824	57°00'N	09°52'W	X	X	X	X	X	X	-	X	-	X	-
62107**	-	50°04'N	06°04'W	X	X	X	X	X	X	-	X	-	X	X
62108	03731	53°34'N	19°30'W	X	X	X	X	X	X	-	X	-	X	-
62109	15829	57°00'N	00°00'E	X	X	X	X	X	X	-	X	-	X	-
62112*	-	58°42'N	01°17'E	X	X	X	X	-	-	-	X	-	X	-
62118*	-	57°45'N	00°55'E	X	X	X	X	-	-	-	X	-	X	-
62126*	-	58°51'N	03°35'W	X	X	X	X	-	-	-	X	-	X	-
62129*	-	53°03'N	02°14'E	X	X	X	X	-	-	X	X	-	X	-
62163	22571	47°30'N	08°30'W	X	X	X	X	X	X	-	X	-	X	-
62301	-	52°10'N	05°05'W	X	X	X	X	X	X	-	X	-	-	-
62302	-	54°08'N	03°37'W	X	X	X	X	X		-	X	-	-	-
62303	15825	51°31'N	04°56'W	X	X	X	X	X	X	-	X	-	X	-
62304**	-	51°09'N	01°47'E	X	X	X	X	X	X	-	-	-	X	X
62305**	-	50°25'N	00°00'W	X	X	X	X	X	X	-	X	-	X	X
63103*	-	61°14'N	01°09'E	X	X	X	X	-	-	-	X	-	X	-
63111*	-	59°33'N	01°32'E	X	X	X	X	-	-	X	X	-	X	-
64045	15831	59°15'N	11°41'W	X	X	X	X	X	X	-	X	-	X	-

* Fixed platforms or islands

** Automatic Light Vessels

Drifting Buoys

WMO Buoy Identifier	ARGOS Identifier	Position: 15 April 1997		Observed or Technical Parameters										
		Latitude	Longitude	1	2	3	4	5	6	7	8	9	10	11
44613	3306	56.7N	30.9W	-	X	X	X	X	-	-	-	-	-	-
44614	1256	66.1N	29.8W	-	-	X	X	X	-	-	-	-	-	-
44624	2958	58.3N	17.7W	X	-	X	X	X	-	-	-	-	-	-
44726	2955	58.3N	07.3W	X	X	X	X	X	-	-	-	-	-	-
44728	1254	62.8N	21.5W	-	X	X	X	X	-	-	-	-	-	-
44742	26753	46.2N	28.1W	X	X	X	X	X	-	-	-	-	-	-
44743	1248	51.3N	16.5W	-	X	X	X	X	-	-	-	-	-	-
44760	2947	27.4N	62.7W	-	X	X	X	X	-	-	-	-	-	-
44762	26754	44.0N	28.5W	X	X	X	X	X	-	-	-	-	-	-
44764	1259	61.1N	20.6W	-	X	-	X	X	-	-	-	-	-	-
44767	3013	62.8N	09.0W	-	X	X	X	X	-	-	-	-	-	-
44768	26746	57.9N	37.3W	-	X	X	X	X	-	-	-	-	-	-
44770	3035	29.1N	73.3W	-	X	X	X	X	-	-	-	-	-	-
44776	2957	57.9N	06.9W	X		X	X	X	-	-	-	-	-	-
44777	1249	60.0N	01.7W	-	X	X	X	X	-	-	-	-	-	-
44779	3186	46.2N	39.7W	-		X	-	X	-	-	-	-	-	-
48102	1261*	79.9N	40.2W	-	X	X	-	-	-	-	-	-	-	-
62697	2959	62.4N	13.0W	X	X	X	X	X	-	-	-	-	-	-
62712	3188	49.7N	31.8W	-	-	X	-	X	-	-	-	-	-	-
62713	3185	43.9N	29.5W	-	-	X	-	X	-	-	-	-	-	-
62804	26743	51.4N	18.0W	-	X	X	X	X	-	-	-	-	-	-
64561	1247	58.1N	46.4W	-	X	X	X	X	-	-	-	-	-	-
65594	1252	62.8N	19.3W	-	X	X	X	X	-	-	-	-	-	-

* Ice drifter

EXPLANATORY NOTES

Separate tables should be prepared for global exchange and regional exchange respectively. These tables should contain information concerning any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations for Volume A, the Catalogue of Meteorological Bulletins, and particularly for stations included in the Regional Basic Synoptic Networks (RBSN).

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

COLUMN A:
The station index number (IIiii) and name of station;

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

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

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

COLUMN E:

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

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

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

COLUMN F:
For those stations not indicating pressure reduced to mean sea level (group 4PPPP) in their synoptic reports, the entry in this column shows which information is reported in lieu of group 4PPPP (see table 1):

STATION	Pressure at station level reported using group $3P_0P_0P_0P_0$
1000 hPa	geopotential of the given standard isobaric surface reported using group $4a_3hhh$
850 hPa	
700 hPa	
500 hPa	

Table 1

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

These tables should be sent to the Secretariat BEFORE the 20th of the month for inclusion in the "OPERATIONAL NEWSLETTER", as appropriate.

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

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

Information on the Operation of the GTS

PUBLICATION NO. 9, VOLUME C1 - CATALOGUE OF METEOROLOGICAL BULLETINS

Notification from

UZBEKISTAN

Page II-60-1-1
add the following

RTH/CRT TASHKENT

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SMUZ10	UTTW	FM 12-X EXT	00,06,12,18	Add station index number **38262** to the list

Notification from

GUYANA

Effective 22 May 1997: change the four-letter indicator of the abbreviated heading CCCC.

Instead of reading "SYTM" change to "SYCJ" (Timehri/Cheddi Jagan International)

Notification from

AUSTRALIA

The Australian Antarctic Automatic Weather Station synoptic data in code form FM 12-X Ext are currently being compiled by WMC Melbourne into the following bulletins:

TTAAii	CCCC	TIME GROUP
SMAA02	AMMC	(main hours)
SIAA22	AMMC	(intermediate hours)
SNAA02	AMMC	(irregular hours)

As from 17 March 1997, the above bulletins will no longer be produced by WMC Melbourne.

Data from these Australian Antarctic Automatic Weather Stations are also available in the following bulletins:

TTAAii	CCCC	TIME GROUP
SMAA17	LFPW	00,06,12,18 UTC
SIAA17	LFPW	03,09,15,21 UTC
SNAA17	LFPW	01,02,04,05,07,08,10,11,13, 14,16,17,19,20,22,23

The above bulletins will replace:

TTAAii	CCCC
SMAA02	AMMC
SIAA22	AMMC
SNAA02	AMMC

Effective

4 APRIL 1997

Heard Island synoptic data from stations 94997 (Spit Bay), and 95997 (Atlas Cove) in code form FM 12-X Ext., will be available in the following bulletins :

TTAAii	CCCC	TIME GROUP
SMSE01	LFPW	00,06,12,18
SISE01	LFPW	03,09,15,21
SNSE01	LFPW	non-standard hours

Bulletin SMHI01 AMMC, which previously contained the 0000 UTC synoptic report from station 94997, will no longer be produced by WMC Melbourne.

"Table of Contents" page V-1 changes:

WMC/RTH	Zone of responsibility
Melbourne	Australia and outlying islands
	Brunei Darussalam
	Fiji
	French Polynesia
	Indonesia
	Kiribati
	Malaysia
	New Caledonia
	Papua New Guinea
	Philippines
	Singapore
	Solomon Islands
	Tonga
	Tuvalu
	Vanuatu
	Wallis and Futuna Islands
	Western Samoa
Wellington	New Zealand and outlying islands
	Cook Islands
	Niue
	Pitcairn
	Tokelau

Page V-10-1-1 Change page header details to the following:

WMC/CMM MELBOURNE
ZONE OF RESPONSIBILITY: AUSTRALIA AND OUTLYING ISLANDS, BRUNEI DARUSSALAM, FIJI, FRENCH POLYNESIA, INDONESIA, KIRIBATI, MALAYSIA, NEW CALEDONIA, PAPUA NEW GUINEA, PHILIPPINES, SINGAPORE, SOLOMON ISLANDS, TONGA, TUVALU, VANUATU, WALLIS AND FUTUNA ISLANDS, WESTERN SAMOA

NAME OF COUNTRY: AUSTRALIA/AUSTRALIE
COMPILING OR EDITING CENTRE: MELBOURNE

Page V-10-1-2 delete the following

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SMHI01	AMMC		00	94997

Pages V-10-1-1 to V-10-1-26

Remove all bulletins where CCCC = NFFN, NFTF, NGFU and NGTT

Remove bulletins: SMAA02 AMMC, SNAA02 AMMC, SNAA03 AMMC, and SIAA22 AMMC

Add new entries for Fiji.

NAME OF COUNTRY: FIJI.
COMPILING OR EDITING CENTRE: NADI

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
ASPS20	NFFN	FM 46-IV	00,12	SURFACE ANALYSIS
CSPS01	NFFN	FM 71-X	MONTHLY	91554 91558 91568 91610 91643 91650 91652 91680 91683 91699 91753
CUFJ01	NFFN	FM 75-X	MONTHLY	91680
FPFJ40	NFFN	PLAIN LANGUAGE		PUBLIC FORECAST
FPFJ41	NFFN	PLAIN LANGUAGE		PUBLIC FORECAST
FPKB40	NFFN	PLAIN LANGUAGE		PUBLIC FORECAST
FPKU40	NFFN	PLAIN LANGUAGE		PUBLIC FORECAST
FPTO40	NFFN	PLAIN LANGUAGE		PUBLIC FORECAST
FPZM40	NFFN	PLAIN LANGUAGE		PUBLIC FORECAST
FQPS01	NFFN	PLAIN LANGUAGE		SHIPPING FORECASTS
FTKB31	NFFN	FM 51-X EXT		NGTA
SEFJ01	NFFN	SPECIAL CODE		SEISMIC DATA
SIFJ20	NFFN	FM 12-X EXT	03,09,15	91650 91652 91659 91660 91670 91676 91680 91683 91691 91693 91697 91699 91822
SIJF20	NFFN	FM 12-X EXT	21	91650 91652 91659 91660 91670 91676 91678 91680 91683 91691 91693 91697 91699 91822
SIVE20	NFFN	FM 13-X	03,09,15,21	SHIP
SMFJ01	NFFN	FM 12-X EXT	00	91650 91652 91659 91660 91670 91676 91678 91680 91683 91691 91693 91697 91699 91753 91754 91822 91960
SMFJ01	NFFN	FM 12-X EXT	06,12	91650 91652 91659 91660 91670 91676 91680 91683 91691 91693 91697 91699 91753 91754 91822
SMFJ01	NFFN	FM 12-X EXT	18	91650 91652 91659 91660 91670 91676 91680 91683 91691 91693 91697 91699 91753 91754 91822 91960
SMVE01	NFFN	FM 13-X	00,06,12,18	SHIP
UAFJ01	NFFN			AIREP
UEFJ01	NFFN	FM 35-X EXT	00	91680
UGFJ20	NFFN	FM 32-IX	00,12	91680
UHFJ01	NFFN	FM 32-IX	00,12	91680
UKFJ01	NFFN	FM 35-X EXT	00	91680
ULFJ01	NFFN	FM 35-X EXT	00	91680
UPFJ01	NFFN	FM 32-IX	00,12	91680
UQFJ20	NFFN	FM 32-IX	00,12	91680
USFJ01	NFFN	FM 35-X EXT	00	91680
WHPS01	NFFN	PLAIN LANGUAGE		HURRICANE WARNINGS
WHPS02	NFFN	PLAIN LANGUAGE		HURRICANE WARNINGS
WHPS03	NFFN	PLAIN LANGUAGE		HURRICANE WARNINGS
WHPS04	NFFN	PLAIN LANGUAGE		HURRICANE WARNINGS
WOPS01	NFFN	PLAIN LANGUAGE		OTHER WARNINGS
WOPS02	NFFN	PLAIN LANGUAGE		OTHER WARNINGS
WOPS03	NFFN	PLAIN LANGUAGE		OTHER WARNINGS
WOPS04	NFFN	PLAIN LANGUAGE		OTHER WARNINGS
WSFJ01	NFFN	PLAIN LANGUAGE		SIGMET
WTPS01	NFFN	PLAIN LANGUAGE		TROPICAL CYCLONE WARNING
WTPS02	NFFN	PLAIN LANGUAGE		TROPICAL CYCLONE WARNING
WTPS03	NFFN	PLAIN LANGUAGE		TROPICAL CYCLONE WARNING
WTPS04	NFFN	PLAIN LANGUAGE		TROPICAL CYCLONE WARNING
WTPS11	NFFN	PLAIN LANGUAGE		TROPICAL CYCLONE WARNING
WTPS12	NFFN	PLAIN LANGUAGE		TROPICAL CYCLONE WARNING
WTPS13	NFFN	PLAIN LANGUAGE		TROPICAL CYCLONE WARNING

Add new entries for Kiribati

NAME OF COUNTRY: KIRIBATI
COMPILING OR EDITING CENTRE: TARAWA

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
CUKB01	NGTT	FM 75-X	MONTHLY	91610
SIKB20	NGTT	FM 12-X EXT	03,21	91533 91610 91629
SMKB01	NGTT	FM 12-X EXT	00,06,12,18	91487 91490 91533 91601 91610 91623 91629 91701
UEKB01	NGTT	FM 35-X EXT	00	91610
UGKB20	NGTT	FM 32-IX	00,12	91610
UHKB01	NGTT	FM 32-IX	00,12	91610
UKKB01	NGTT	FM 35-X EXT	00	91610
ULKB01	NGTT	FM 35-X EXT	00	91610
UPKB01	NGTT	FM 32-IX	00,12	91610
UQKB20	NGTT	FM 32-IX	00,12	91610
USKB01	NGTT	FM 35-X EXT	00	91610

Add new entries for Tonga

NAME OF COUNTRY: TONGA
COMPILING OR EDITING CENTRE: TONGA

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SITO21	NFTF	FM 12-X EXT	03,21	91779 91780 91784 91785 91786 91792
SITO21	NFTF	FM 12-X EXT	15	91779 91792
SMTO02	NFTF	FM 12-X EXT	00	91772 91776 91779 91780 91784 91785 91786 91792
SMTO02	NFTF	FM 12-X EXT	06,12,18	91772 91776 91779 91780 91784 91792
UGPS20	NFTF	FM 32-IX	00,06,12,18	91792
UPPS01	NFTF	FM 32-IX	00,06,12,18	91792

Add new entries for Tuvalu

NAME OF COUNTRY: TUVALU
COMPILING OR EDITING CENTRE: FUNAFUTI

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
CUTV01	NGFU	FM 75-X	MONTHLY	91643
SITV20	NGFU	FM 12-X EXT	03,09,21	91643
SMTV01	NGFU	FM 12-X EXT	00,06,12,18	91631 91636 91643 91648
UETV01	NGFU	FM 35-X EXT	00	91643
UGTV20	NGFU	FM 32-IX	00,12	91643
UHTV01	NGFU	FM 32-IX	00,12	91643
UKTV01	NGFU	FM 35-X EXT	00	91643
ULTV01	NGFU	FM 35-X EXT	00	91643
UPTV01	NGFU	FM 32-IX	00,12	91643
UQTV20	NGFU	FM 32-IX	00,12	91643
USTV01	NGFU	FM 35-X EXT	00	91643

Add new entries for Western Samoa

NAME OF COUNTRY: WESTERN SAMOA
COMPILING OR EDITING CENTRE: APIA

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
CSTK01	NSAP	FM 71-X	MONTHLY	91762
SMTK01	NSAP	FM 12-X EXT.	00,06	91720 91723 91724 91727 91762
SITK20	NSAP	FM 12-X EXT.	03,09	91723 91724 91762
SITK20	NSAP	FM 12-X EXT.	15	91723 91762
SITK20	NSAP	FM 12-X EXT.	21	91720 91723 91724 91727 91762

Page V-20-1-1
change page header details to following:

RTH/CRT WELLINGTON
ZONE OF RESPONSIBILITY: NEW ZEALAND AND OUTLYING ISLANDS, COOK ISLANDS, NIUE, PITCAIRN, TOKELAU
NAME OF COUNTRY: NEW ZEALAND / NOUVELLE-ZÉLANDE
COMPILING OR EDITING CENTRE: WELLINGTON

Pages V-20-1-1 to V-20-1-4

Remove all bulletins where CCCC = NZCM, NZSP, NCRG and NSAP.

Add new entries for Cook Islands

NAME OF COUNTRY: COOK ISLANDS
COMPILING OR EDITING CENTRE: RAROTONGA

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
CSKU01	NCRG	FM 71-X	MONTHLY	91843
SMKU01	NCRG	FM 12-X EXT.	00,06,12,18	91802 91809 91811 91826 91831 91841 91843 91848
SIKU20	NCRG	FM 12-X EXT.	03,15,21	91802 91809 91826 91831 91841 91843 91848
SIKU20	NCRG	FM 12-X EXT.	09	91843
UHKU01	NCRG	FM 32-IX	00	91801 91843
UPKU01	NCRG	FM 32-IX	00	91801 91843
UPKU01	NCRG	FM 32-IX	12	91843
UGKU20	NCRG	FM 32-IX	00	91801 91843
UGKU20	NCRG	FM 32-IX	12	91843
UQKU20	NCRG	FM 32-IX	00	91801 91843
UQKU20	NCRG	FM 32-IX	12	91843

Page VI-50-1

Add the following

RTH/CRT TOULOUSE
ZONE OF RESPONSIBILITY: FRANCE, BELGIUM, PORTUGAL, SPAIN
NAME OF COUNTRY: FRANCE
COMPILING OR EDITING CENTRE: TOULOUSE

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SMAA17	LFPW	FM 12-X EXT.	00,06,12,18	89568 89577 89757 89758 89762 89774 89803 89807 89810 89811 89813 89814 89815
SIAA17	LFPW	FM 12-X EXT.	03,09,15,21	89568 89577 89757 89758 89762 89774 89803 89807 89810 89811 89813 89814 89815
SNAA17	LFPW	FM 12-X EXT.	Non-standard hours	89568 89577 89757 89758 89762 89774 89803 89807 89810 89811 89813 89814 89815

In the following bulletins, add the index numbers

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SISE01	LFPW	FM 12-X EXT.	03,09,15,21	94997 95997
SMSE01	LFPW	FM 12-X EXT.	00,06,12,18	95997
SNSE01	LFPW	FM 12-X EXT.	Non-standard hours	95997

Delete the index number

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SISE20	LFPW	FM 12-X EXT.	03,09,15,21	94997

Changes:
Antarctic,
Page ANT-5-1-1 to ANT-5-1-2
(Melbourne & Wellington)

Remove reference to "Wellington" in page header details
Remove all bulletins from compiling/editing centre listings for Melbourne and Wellington where CCCC = NZCM, NZSP and NZKL
Remove bulletins SMAA02 AMMC, SNAA02 AMMC, SNAA03 AMMC and SIAA22 AMMC
Add new entry for Wellington

ANTARCTIC
COMPILING OR EDITING CENTRE: IN REGION V : WELLINGTON

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SMVJ01	NZKL	FM 13-X	00,06,12,18	SHIP/NAVIRE
UEVJ01	NZKL	FM 36-X EXT.	00,12	TEMP SHIP
UKVJ01	NZKL	FM 36-X EXT.	00,12	TEMP SHIP
ULVJ01	NZKL	FM 36-X EXT.	00,12	TEMP SHIP
USVJ01	NZKL	FM 36-X EXT.	00,12	TEMP SHIP
SIVJ20	NZKL	FM 13-X	03,09,15,21	SHIP/NAVIRE

Page ANT-6-3 -1
(Rome, Toulouse)

Add the following bulletins for Australian Antarctic AWS data:

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SMAA17	LFPW	FM 12-X EXT.	00,06,12,18	89568, 89577, 89757, 89758,89762, 89774, 89803, 89807,89810, 89811, 89813, 89814,89815 NOTE. AUSTRALIAN ANTARCTIC AWS
SIAA17	LFPW	FM 12-X EXT.	03,09,15,21	89568, 89577, 89757, 89758,89762, 89774, 89803, 89807,89810, 89811, 89813, 89814,89815 NOTE: AUSTRALIAN ANTARCTIC AWS
SNAA17	LFPW	FM 12-X EXT.	01,02,04,05,07,08,10,11,13,14,16,17,19,20,22,23	89568, 89577, 89757, 89758,89762, 89774, 89803, 89807,89810, 89811, 89813, 89814,89815 NOTE: AUSTRALIAN ANTARCTIC AWS

Page ANT-7-2-1
(Mc Murdo)

Add the following bulletins for Amundsen-Scott (89009) data:

TTAAii	CCCC	CODE FORM USED	TIME GROUP	CONTENT
SMAA01	NZSP	FM 12-X EXT.	00,06,12,18	89009
UEAA01	NZSP	FM 35-X EXT	00,12	89009
UGAA01	NZSP	FM 32-IX	00,12	89009
UKAA01	NZSP	FM 35-X EXT	00,12	89009
ULAA01	NZSP	FM 35-X EXT	00,12	89009
UQAA01	NZSP	FM 32-IX	00,12	89009
USAA01	NZSP	FM 35-X EXT	00,12	89009
SIAA20	NZSP	FM 12-X EXT.	03,09,15,21	89009

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Bracknell (EGRR)

Changes to Abbreviated Header Lines (AHL) and GRIB code

The following changes should be made to the transmission of Bracknell Numerical Weather Prediction products in 1997. These changes are to comply with the new WMO Abbreviated Message Headings (AHL) and the cessation of Products using the obsolete GRIB code Version 0 (FM 92-VIII Ext.).

Bracknell originially scheduled the first change for 5 February 1997 and did implement it on that date. However, due to the number of complaints from people who (for various reasons) had not complied with the notification - the implementation date was cancelled on the same day. The plan is now to provide *duplicate* coded products on 7 May 1997, keeping the old products until 12 weeks later (until 30 July 1997).

Fax products (P***** and Q*****) are not affected at this stage.

1.

THE INITIAL CHANGES TO BE MADE ON 7 MAY 1997 ARE AS FOLLOWS:

(a) Changes to ii in Abbreviated Header Line (AHL)

ii = 93 to ii = 88

ii = 98 to ii = 89

These are to comply with WMO Abbreviated Header Line (AHL) changes .

- **All (D/G/H/X/Y)***93 EGRR products will be repeated as (D/G/H/X/Y)***88**
- **All (D/G/H/X/Y)P**98 EGRR products will be repeated as (D/G/H/X/Y)P**89**

(The first is to use the correct level ii=88 for '**ground or water properties at the Earth's surface**', which affects all wave products. ii=93 has been assigned to 975 hPa generally. During this process some products of **Pressure at MSLP** will also be corrected to use the correct ii=89 value instead of ii=98 - **Pressure at the earth's surface**).

(b) New Regional Atmospheric MODEL GRIB products

Bracknell (EGRR) will introduce a **Regional Atmospheric Model** GRIB product using the latest code FM 92-X Ext. This will be a single region **R** with resolution 1.25 latitude and 1.25 longitude covering the area:

R 32.5°N to 75°N; 70°W to 35°E

This is intended to replace the three GRIB Version 0 (FM 92-VIII Ext.) products on area codes W, X and Y which have the areas:

W 32.5°N to 75°N; 70°W to 35°W

X 32.5°N to 75°N; 35°W to 0°E

Y 32.5°N to 75°N; 0°E to 35°E

Listed below are the new headers which will be produced:

Y(U,V,T)R(A-M)98

YPR(A-M)89

YER(A-M)98

YHR(A-M)(85,70,50,40,30,25,20,15,10)

Y(U,V,T)R(A-M)(95,85,70,50,40,30,25,20,15,10)

YRR(A-M)(95,85,70,50)

(c) New Regional Wave GRIB

Bracknell (EGRR) will introduce a Regional Wave Model GRIB product using the latest code FM 92-X Ext. This will be a single region **N** with resolution 1.25 latitude and 1.25 longitude covering the area:

N 31.25°N to 66.25°N; 13.75°W to 41.25°E

This is intended to replace the GRIB Version 0 (FM 92-VIII Ext.) product on area code **M** which has the same resolution with a smaller area:

M 31.25°N to 66.25°N; 13.75°W to 35.0°E

Listed below are the new headers which will be produced:

Y(J-N,Q,Y)N(A-M)88

2.

FURTHER CHANGES TO BE MADE ON 30 JULY 1997 ARE AS FOLLOWS:

GRIB products using GRIB 0 (FM 92-VIII Ext.) will cease. There are/will be products using GRIB 1 (FM 92-X Ext.) to replace them, but **NOT** using the same Abbreviated Header Lines (AHLs) or even the same regions.

(a) Cessation of Global GRIB products using obsolete code

Production of Global GRIB version 0 (FM 92-VIII Ext.) products (H*(A,B,C,D)***)EGRR with 2.5 x 5 resolution GRIB **will cease**.

These have already been replaced (3 years ago) by products using GRIB version 1 (FM 92-X Ext.) with the resolution 2.5 x 2.5 (H*(S,T,U,V,W,X and Z)***) EGRR. These are currently in use by many customers, but those who have not transferred **should do so now**.

(For **Aviation**, the products coded in Thinned GRIB (H*(I to P)***) EGRR are available and backed up with Washington data (H*(I to P)***) KWBC. These are **not affected** by this notice.)

(b) Cessation of Regional GRIB products using obsolete code

Regional Atmospheric and Wave model GRIB products Y*(W,X,Y)*** and Y*M*** in GRIB version 0 (FM 92-VIII Ext.) at 1.25 x 1.25 resolution **will cease**.

Users should **replace these** by the Y*R*** and Y*N*** products announced above in **1.(b)** and **1.(c)**.

(c) Cessation of coded products using obsolete WMO AHLs

All products using ****93 will cease.
All products using *P**98 will cease.

These changes may prove difficult to handle for some National Meteorological Services. **If you use GRIB v0 (FM 92-VIII Ext.) and experience difficulty in transferring to GRIB v1 (FM 92-X Ext.), please contact**

Mike Longworth
National Met. Service Customer Manager
The Met. Office
Operational Services, Room 213
email: mlongworth@meto.gov.uk

CORRIGENDUM

"Operational Newsletter Volume 1997 No1/2 - January/February 1997
Annex III - GTS"

An error was produced in the above indicated Newsletter. The text should have read as follows:

Page 27 "Deleted Bulletins" should have read:
"In the following bulletins, delete the index numbers listed below"

Page 28 "New Bulletins" should have read
"In the following bulletins, add the index numbers listed below"

For ease of reference we have included the complete listing with the corrected text on pages 39 and 40.

Region V: AUSTRALIA
Compiling or Editing Centre: Melbourne (Australia)

Date effective: 01.02.1997

In the following bulletins, delete the index numbers listed below:

Abb.Heading TTAAii CCCC	Time Group (GG)	Content of Bulletin
SMAU01 AMMC	00,06,12,18	94102
SNAU01 AMMC	01,07	94101 94205 94402 95314
SNAU01 AMMC	19	94402
SNAU03 AMMC	05,11,23	94461 94649
SNAU03 AMMC	17	94461
SNAU04 AMMC	05,23	94175 94355 94380
SNAU04 AMMC	11	94380
SNAU04 AMMC	17	94380
SNAU05 AMMC	05	94689 94861 94967 94940
SNAU05 AMMC	11	94940 94527 94967
SNAU05 AMMC	17	94527 94689 94967
SNAU05 AMMC	23	94527 94689 94940 94851 94861 94967
SNNG01 AMMC	05,23	94001 94003 94004 94014 94035 94044 94047 94076 94085 94087
SNNG01 AMMC	11	94004 94014 94035 94044 94047 94076 94085
SNNG01 AMMC	17	94014 94035 94044 94047
UEAU01 AMMC	00	94403 94461
UEAU03 AMMC	00	94380 95527
UEAU04 AMMC	00	94750
UEAU04 AMMC	18	94750
UENG01 AMMC	00,12	94014 94035 94044
UHAU01 AMMC	00,06,12,18	94403 94430 94461
UHAU03 AMMC	00,06,12,18	95527
UHAU04 AMMC	00,06,12,18	94750
UHNG01 AMMC	00,06,12,18	94014 94035 94044 92047 94076 94087
UKAU01 AMMC	00	94403 94461
UKAU03 AMMC	00	94380 95527
UKAU04 AMMC	00	94750
UKAU04 AMMC	18	94750
UKNG01 AMMC	00,12	94014 94035 94044
ULAU01 AMMC	00	94403 94461
ULAU03 AMMC	00	95527 94380
ULAU04 AMMC	00	94750
ULAU04 AMMC	18	94750
ULNG01 AMMC	00,12	94014 94035 94044
UPAU01 AMMC	00,06,12,18	94403 94430 94461
UPAU03 AMMC	00,06,12,18	95527
UPAU04 AMMC	00,06,12,18	94750
UPNG01 AMMC	00,06,12,18	94014 94035 94044 92047 94076 94087
USAU01 AMMC	00	94403 94461
USAU03 AMMC	00	94380 95527
USAU04 AMMC	00	94750
USAU04 AMMC	18	94750
USNG01 AMMC	00,12	94014 94035 94044
SIAU21 AMMC	03,09,15,21	94102
SNAU21 AMMC	04	94402
SNAU21 AMMC	10	94402 95314
SNAU21 AMMC	16	94402 95314
SNAU21 AMMC	22	94101 94402

Abb.Heading TTAAii CCCC	Time Group (GG)	Content of Bulletin
SNAU23 AMMC	02,08	94461 94649
SNAU23 AMMC	14	94461
SNAU23 AMMC	20	94461 94649 94666
SNAU24 AMMC	02	94380
SNAU24 AMMC	08	94380
SNAU24 AMMC	14	94380
SNAU24 AMMC	20	94380
SNAU25 AMMC	02	94527 94940 94967
SNAU25 AMMC	08	94527 94940 94967
SNAU25 AMMC	20	94527 94940 94967
SNAU40 AMMC	01	94317 94319
SNAU40 AMMC	07	94319
SNAU42 AMMC	01	94642 94647 95205
SNAU42 AMMC	04	94642 94647 95205
SNAU42 AMMC	07	94642 94647 95205
SNAU42 AMMC	10	94642 94647 95205
SNAU42 AMMC	13	94642 94647 95205
SNAU42 AMMC	16	94642 94647 95205
SNAU42 AMMC	19	94642 94647 95205
SNAU42 AMMC	22	94642 94647 95205
SNAU44 AMMC	02	94651
SNAU44 AMMC	05	94651
SNAU44 AMMC	08	94651
SNAU44 AMMC	11	94651
SNAU44 AMMC	14	94651
SNAU44 AMMC	17	94651
SNAU44 AMMC	20	94651
SNAU44 AMMC	23	94651
SNAU45 AMMC	02	94691 95458 95481
SNAU45 AMMC	05	94691 95458 95481
SNAU45 AMMC	08	94691 95458 95481
SNAU45 AMMC	11	94691 95458 95481
SNAU45 AMMC	14	94691 95458 95481
SNAU45 AMMC	17	94691 95458 95481
SNAU45 AMMC	20	94691 95458 95481
SNAU45 AMMC	23	94691 95458 95481
SNAU46 AMMC	02	94236 94327 94462
SNAU46 AMMC	05	94236 94327 94462
SNAU46 AMMC	08	94236 94462
SNAU46 AMMC	11	94236 94327 94462
SNAU46 AMMC	14	94236 94462
SNAU46 AMMC	17	94236 94462
SNAU46 AMMC	20	94236 94327 94462
SNAU46 AMMC	23	94236 94327 94462
SNAU48 AMMC	05	94542
SNAU48 AMMC	11	94542
SNAU48 AMMC	20	94542
SNAU48 AMMC	23	94542
SNAU49 AMMC	02	94170 94584
SNAU49 AMMC	05	94170 94584
SNAU49 AMMC	08	94170 94584
SNAU49 AMMC	11	94170 94584
SNAU49 AMMC	14	94170 94584
SNAU49 AMMC	17	94170 94584
SNAU49 AMMC	20	94170 94584
SNAU49 AMMC	23	94170 94584
SNAU50 AMMC	02	94485
SNAU50 AMMC	05	94485
SNAU50 AMMC	08	94485
SNAU50 AMMC	11	94485

Abb .Heading TTAAii CCCC	Time Group (GG)	Content of Bulletin
SNAU50 AMMC	14	94485
SNAU50 AMMC	17	94485
SNAU50 AMMC	20	94485
SNAU50 AMMC	23	94485
SNAU51 AMMC	02	94720
SNAU51 AMMC	05	94720
SNAU51 AMMC	08	94720
SNAU53 AMMC	02	95703 95762
SNAU53 AMMC	05	95703 95762
SNAU53 AMMC	08	95703 95762
SNAU53 AMMC	11	95703 95762
SNAU53 AMMC	17	95703 95762
SNAU53 AMMC	20	95703 95762
SNAU53 AMMC	23	95703 95762
SNAU54 AMMC	02	94842
SNAU54 AMMC	05	94842
SNAU54 AMMC	08	94842
SNAU54 AMMC	11	94842

Abb.Heading TTAAii CCCC	Time Group (GG)	Content of Bulletin
SNAU54 AMMC	14	94842
SNAU54 AMMC	17	94842
SNAU54 AMMC	20	94842
SNAU54 AMMC	23	94842
SNNG21 AMMC	02,08,20	94001 94003 94004 94014 94035 94044 94047 94076 92077 94085 94087
SNNG21 AMMC	14	94035
SNNG40 AMMC	02,05,08,11, 14,17,20,23	94006 94011 94012 94016 94017 94021 94022 94023 94031 94040 94042 94051 94057 94068 94069 94070 94071 94072 94077 94080 94082 94083 94084 94090 94092
UGAU21 AMMC	00,06,12,18	94403 94430 94461
UGAU23 AMMC	00,06,12,18	95527
UGAU24 AMMC	00,06,12,18	94750
UGNG21AMMC	00,06,12,18	94014 94035 94044 92047 94076 94087

Region V: AUSTRALIA Date effective: 01.02.1997

Compiling or Editing Centre: Melbourne (Australia)

In the following bulletins, add the index numbers listed below:

SNAU01 AMMC	01,07	94102 94317 94319 94461 94642 94647 94651 95205
SNAU01 AMMC	13	94102 94212 94319 94461 94601 94647 94651 95205
SNAU01 AMMC	19	94102 94200 94313 94642 94319 94647 94651 95205
SNAU02 AMMC	05,23	94236 94327 94462
SNAU02 AMMC	11	94236 94327 94462
SNAU02 AMMC	17	94236 94462
SNAU03 AMMC	05,11,23	95458 95481
SNAU03 AMMC	17	95458 95481
SNAU04 AMMC	05,23	94170 94374 94542 94584
SNAU04 AMMC	11	94170 94374 94542 94584
SNAU04 AMMC	17	94170 94374 94584
SNAU05 AMMC	05	94485 94527 94720 94875 95527 95703 95762 94691
SNAU05 AMMC	11	94485 94691 94875 95527 95703 95762
SNAU05 AMMC	17	94875 95527 95703 95762 94691
SNAU05 AMMC	23	94720 94875 95527 95703 95762 94485 94691
SNNG01 AMMC	05,23	92001 92003 92004 92014 92035 92044 92047 92076 92077 92087
SNNG01 AMMC	11	92004 92014 92035 92044 92047 92076
SNNG01 AMMC	17	92014 92035 92044 92047
UEAU01 AMMC	12	94120 94203
UEAU02 AMMC	00	94403 94461
UEAU02 AMMC	12	94672 94610 94637 94638 94802
UEAU03 AMMC	12	94510 94578
UEAU04 AMMC	00	95527
UEAU04 AMMC	12	94975
UENG01 AMMC	00	92014 92035 92044
UHAU02 AMMC	00,06,18	94403 94430 94461
UHAU02 AMMC	12	94403 94461
UHAU04 AMMC	00,06,12,18	95527
UHNG01 AMMC	00,06	92014 92035 92044 92047 92076 92087
UHNG01 AMMC	12,18	92014 92035 92044
UKAU01 AMMC	12	94120 94203
UKAU02 AMMC	00	94403 94461
UKAU02 AMMC	12	94672 94610 94637 94638 94802
UKAU03 AMMC	12	94510 94578
UKAU04 AMMC	00	95527
UKAU04 AMMC	12	94975
UKNG01 AMMC	00	92014 92035 92044
ULAU01 AMMC	12	94120 94203
ULAU02 AMMC	00	94403 94461
ULAU02 AMMC	12	94672 94610 94637 94638 94802
ULAU03 AMMC	12	94510 94578
ULAU04 AMMC	00	95527
ULAU04 AMMC	12	94975
ULNG01 AMMC	00	92014 92035 92044
UPAU02 AMMC	00,06,18	94403 94430 94461
UPAU02 AMMC	12	94403 94461
UPAU04 AMMC	00,06,12,18	95527
UPNG01 AMMC	00,06	92014 92035 92044 92047 92076 92087
UPNG01 AMMC	12,18	92014 92035 92044
USAU01 AMMC	12	94120 94203
USAU02 AMMC	00	94403 94461
USAU02 AMMC	12	94672 94610 94637 94638 94802
USAU03 AMMC	12	94510 94578
USAU04 AMMC	00	95527
USAU04 AMMC	12	94975
USNG01 AMMC	00	92014 92035 92044
SNAU21 AMMC	04	94102 94319 94461 94647 94651 95205
SNAU21 AMMC	10	94102 94212 94319 94461 94642 94647 94651 95205
SNAU21 AMMC	16	94102 94319 94461 94647 94651 95205
SNAU21 AMMC	22	94102 94319 94461 94642 94647 94651 95205
SNAU22 AMMC	02	94146 94236 94327 94462
SNAU22 AMMC	08	94462
SNAU22 AMMC	14	94462
SNAU22 AMMC	20	94236 94327 94462
SNAU23 AMMC	02,08	95458 95481
SNAU23 AMMC	14	94804 95458 95481
SNAU23 AMMC	20	95458 95481
SNAU24 AMMC	02	94170 94374 94584
SNAU24 AMMC	08	94170 94374 94584
SNAU24 AMMC	14	94346 94374 94584
SNAU24 AMMC	20	94170 94374 94542 94584
SNAU25 AMMC	02	94691 94720 94875 95527 95703 95762
SNAU25 AMMC	08	94485 94691 94720 94875 95527 95703 95762
SNAU25 AMMC	14	94691 94842 94875 94907 94910 94995 95527 95762
SNAU25 AMMC	20	94485 94691 94720 94875 95527 95703 95762
SNNG21 AMMC	02,08,20	92001 92003 92004 92014 92035 92044 92047 92076 92077 92087
SNNG21 AMMC	14	92035
SNNG40 AMMC	02,05,08,11, 14,17,20,23	92005 92006 92010 92011 92012 92013 92016 92017 92021 92022 92023 92026 92031 92040 92057 92068 92069 92070 92071 92072 92075 92080 92082 92083 92084 92088 92090 92092 92100
UGAU22 AMMC	00,06,18	94403 94430 94461
UGAU22 AMMC	12	94403 94461
UGAU24 AMMC	00,06,12,18	95527
UGNG21AMMC	00,06	92014 92035 92044 92047 92076 92087
UGNG21AMMC	12,18	92014 92035 92044

LIST OF RTH FOCAL POINTS

The Eleventh Session of CBS invited those Members operating an RTH to designate a focal point who could be contacted by other GTS centres and the Secretariat. The list of RTH focal points is given hereunder according to the information received in the Secretariat. Members are invited to complete and update this list as required.

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Mr L. KELLER
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THE YEAR 2000 PROBLEM

The "Year 2000 Problem" is the generic term commonly used in connection with the various problems that may occur at the turn of the century with software and even hardware of computer systems. While this issue is in principle of relevance in all computer systems - large or small, it is particularly critical for many of those computer applications in which the calendar date is of importance, such as in meteorological data-processing and telecommunications.

The Commission for Basic Systems (CBS), at its eleventh session (October/November 1996, Cairo, Egypt), underlined that the problem might affect computer-based systems operating in all sectors of the NMHSs, in particular however in WWW-related operations. The Commission invited NMHSs to pay serious attention to the matter so that necessary changes to computer systems might be made in good time. It will continue to monitor this problem and additional information and guidance will be published as it becomes available.

The United Kingdom Meterological Office has developed a document that describes the issues involved in more detail and gives some practical advice on how to deal with the problem. This document is included hereafter.

1. INTRODUCTION

1.1 For many years it has been recognised that computer hardware and software would have a problem when the date changed from 31 December 1999 to 1 January 2000. The reason for this is simply because in much software, the year has often been truncated to 2 digits (i.e. the year of the century). The problem is made more serious when one realises that systems may not just stop working but give the wrong results and continue working, thus creating an even bigger crisis.

1.2 The problem is most obvious when trying to perform a calculation using a date from each century which are in the form DDMMYY.

1.3 Other typical problems:

- Some PCs, if left running from 23:59 31/12/99 to 00:01 1/1/00, and then powered off and on, will re-start with a date of 08/01/1984.
- Some date software is known to treat the year 2000 wrongly as a leap year, causing problems on or after 29/2/2000. The year 1900 was NOT a leap year, but the year 2000 is.
- Strictly speaking, the new century and millennium do not begin on the 1/1/2000 but on 1/1/2001. It is not clear how software that uses 'the century' separately from 'the year of the century' will behave.
- Even more difficult are those legacy programs which use the year 99 or 00 to have special meaning such as "end of file" or "keep for ever".

1.4 It has also been shown that it is not just the traditional computing areas that need to be investigated. For example:

- Many automated observing instruments, such as cloud base recorders, have a PC embedded in them and they will fail at about 0001Z on the 1 January 2000.
- The less obvious systems such as the telephone system, fire alarm system and pay roll system.

1.5 Some of these systems may just need a quick investigation to prove they do not rely on the date and can therefore be signed off immediately as being 'YEAR 2000 compliant'. Others may require extensive negotiations with the supplier, particularly if they have not started considering the problem or are clearly not able to meet the deadline. This could mean purchasing new systems or installing emergency manual systems until a solution is provided.

1.6 In addition, it is quite likely that questions could be asked about the NMHS's state of readiness by customers and politicians who become aware of the problem.

2. BACKGROUND

2.1 These are not a trivial problems as they are to be found on both hardware and software, inside and outside the NMHSs. In fact, the problems can seem so big that there is temptation to do nothing in the hope that the problems will disappear because of other peoples' efforts.

2.2 Only now it would seem that the IT industry is beginning to take note of the problem (with 38 months left) and users of IT systems are beginning to ask "Who is dealing with this problem?"

2.3 Often in a project, management has two options. One is to add more staff resources, which may or may not speed up the project, or the final delivery date is slipped. Unfortunately, the 1 January 2000 cannot be postponed. The adding of extra staff resources (which may be very scarce) later in a project may have an adverse effect. However, if it is later found that the staff resource was an over estimate then they could be re-deployed elsewhere or the project could be completed earlier the expected.

2.4 Another area of concern is that people are already hoping their current software, or hardware, will be redundant and replaced in time so the problem will disappear, or that because software was supplied by an external body, it must be correct.

2.5 However, for example, the Bank of Scotland, which uses 67 software packages, sent a questionnaire to all its software suppliers. The replies show that 40% of vendors said their systems would be correct and 40% said they would not. Most worrying were the 15% who said they did not know and the 5% who could not be traced.

2.6 Despite the potential size and complexity of the problem it is not insurmountable. This has been proven by, for example, banks and building societies calculating mortgage payments and interest rates beyond the year 2000. Even within the UKMO there are areas, such as climate models, which routinely deal with the next century.

2.7 A number of the major IT consultancy groups, e.g. Gartner Group, have started to provide estimates of the resources that will be required to fix problems. For example, 100,000 lines of software will take on average 1 staff-year of effort to fix. In the UKMO operational source libraries on the IBM mainframe there are 241,672 lines of executable software. This would require 2.5 staff-years of effort to fix any problems. A simpler view is that if there are 60 lines of software per page and it takes 5 minutes to read and comprehend a page, then it would take approximately 10 staff-weeks just to read the software, without correcting and testing.

2.8 A survey of staff in the UKMO indicated, and later sample tests continued to show, many were still of the opinion that the problem is not theirs but someone else's.

For example :

- "We have a maintenance contract with the supplier of our equipment and we expect them to fix any problems through normal maintenance."
- "Our systems are non-critical (i.e. not part of the daily operational suite) so we will fix any problem when we meet it."
- "We only expect problems to occur with the supported hardware and software such the IBM mainframe, or PCs with Microsoft Office, which of course is the problem of someone in the IT support area."

2.9 Giving presentations may help to improve awareness of the problem and address some of the above issues, but that is not enough to guarantee that senior management can stand up with confidence and state when a NMHS will be ready for the YEAR 2000. In order that staff and customers can be assured that a NMHS is ready, there will be the need to be investigations, discussions with individuals/teams, action and evidence that testing has taken place.

3. WHAT SHOULD BE DONE?

3.1 The most important step is that Senior Management is made aware of the problem and the need for resources.

3.2 A single person or group must be tasked with doing an initial investigation to scope the size of the problem.

3.3 The staff should be made aware that this is THEIR problem. By emphasising this as a user problem, they will find it easier to commit resources to finding solutions or confirming the problem does not exist in their applications.

3.4 If a NMHS is going to solve this problem, it would best be done in a managed way. This will have a number of positive effects.

- Internal staff will know the problem is being tackled and therefore fear of nothing being done is removed.
- Staff will know who is co-ordinating the effort and who has overall responsibility which will increase confidence in solutions being found and implemented in a timely fashion.
- A positive clear statement can be made to external customers when questioned.
- Difficult decisions will not be shelved but faced head on.

3.5 The NMHS could contract out the problem as some companies have decided. This may seem a good idea as the problem would appear to have been passed to someone else. However the contractor may not be able to deal with all aspects of the problem and therefore the NMHS will have to fill in the gaps and most probably do the actual work of installing changes.

4. ACTION PLAN

4.1 The UKMO developed the following approach in order to break down the problem into manageable parts, estimate the size of the problem and identify what possibly needs to be done, before it happens:

- Start investigating the problem now, as it is already late.
- Make everyone aware of the problem and get top level management to take responsibility for it.
- Recognise that this is a major project and will fail if project management and risk management are not done successfully.
- Fixing the problem will bring not benefit to the organisation in terms of revenue or new products.
- Fixing the problem will mean the organisation can deliver services at the year 2000 and beyond.
- Do not believe anyone who says their system (hardware or software) is OK - get them to PROVE it and SIGN for it.

4.2 Perform a technical audit of all software and systems likely to be affected. This may take a significant time when done properly. In particular:

- Build an inventory of hardware that will still be operating around 1999/2000 (and thus hardware that will be disposed of before then);
- Build an inventory of internal software;
- Build an inventory of commercial software.

4.2.1 Unless these inventories are created it will be impossible to scope the size of the problem properly or to be certain which items have been covered and checked off.

4.2.2 For example there is no point in testing software on Hewlett Packard UNIX workstations when HP have stated that their HP-UX operating system does NOT calculate dates after 2000 correctly. The problem will be fixed in release 10.30 of the operating system which is scheduled for release in the second half of 1997. This means these workstations will have to be upgraded before any serious testing of code can take place. The planning of these upgrades will have to be incorporated into the testing of any application software on UNIX workstations.

4.3 Perform a contractual audit of those systems identified in the technical audit as problematic, to find out who is responsible, and therefore should pay, to fix the systems. The relevant clauses in the existing agreements should be examined, to ensure that the contractor can be forced to act. There may be maintenance clauses that do not mention Year 2000, but imply it through: 'fitness for purpose', or 'performs according to the functional specification', or preventative maintenance, or a long contract term into the next century.

4.4 Perform an Intellectual Property audit for those systems where the contractor cannot be forced to rectify the situation. This is to find out if you have the rights to modify or adapt the system or to get a third party to make the modifications.

4.5 Ensure any new agreements entered into specify a warranty that the new system will behave correctly. You must also specify what 'behave correctly' means, and an acceptance

test may be useful. As a fall back position, also consider what to do if the warranty is not effective (For example, an ESCROW agreement, where a third party keeps the software source code for release when the warranty fails. Under English law, there is no automatic right of access to source code if the supplier fails to maintain software.)

4.6 Plan and perform testing of systems, involving users. Ensure that the systems/applications have been seen to be tested, passed and most importantly, the individual items signed off.

5. ARE THERE ANY BENEFITS?

5.1 Despite the potential size of the problem and the possibility of a large drain on resources which are already scarce, this exercise does provide new opportunities which should not be missed. For example:

- While investigating legacy software, if it needs to be changed, should it not be replaced by new software which is more cost effective? It might even be worthwhile asking the question "Is this software really necessary?"

- In doing the inventory of 3rd party software, there is the opportunity to discover what people use and why, and if there is redundant software. If the software does not cope with the date change then would it be cheaper to move to a new software package?

- If changes to software programs are large and complex, should the software be put under a formal change management and change control tool. This would improve the management and control of the change, but may also change the way that people work. For example the UKMO Unified Model is estimated to have 5 billion possible paths through it. Can a manual system cope with logging that all those paths have been checked for the change of date?

5.2 Investigating the problem and providing solutions will cost in both staff resources and money without providing any enhancement to the efficient running of the NMHS. However it will mean that the NMHS maintains its status and reputation and not have its customers go elsewhere for services.

PUBLICATION NO. 9, VOLUME D - INFORMATION FOR SHIPPING

Part B
Coastal Radio Stations Accepting Ships' Weather Reports and Oceanographic Reports

INMARSAT Coast Earth Stations (CESs)

Notification from Australia

Effective 5.03.97: edit the following page D-B-INMARSAT-V-1-1

Perth INMARSAT A and C services should be divided into two separate entries, Indian Ocean Region and Pacific Ocean Region as follows:

Indian Ocean Region

1	2	3	4	5	6
Areas from which reports may be accepted	Name of NMC	CES Code	Automatic Service Code (41)	Country Code	Telex No. of NMC
South of the Equator Between Long 60E and 140E	Melbourne	02 (Standard A)	X (Standard A)	N/A	N/A
		322 (Standard C)	X (Standard C)	71 (Standard C)	154707 (Standard C)

Pacific Ocean Region

1	2	3	4	5	6
Areas from which reports may be accepted	Name of NMC	CES Code	Automatic Service Code (41)	Country Code	Telex No. of NMC
South of the Equator between Long 120E and 120W	Melbourne	02 (Standard A)	X (Standard A)	N/A	N/A
		222 (Standard C)	X (Standard C)	71 (Standard C)	154707 (Standard C)