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Annexes: 2

GENEVA, 31 January 1991

Subject : Monthly letter on the operation of the World Weather Watch (WWW) and Marine Meteorological Services (MMS) January 1991

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

Dear Sir/Madam,

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

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

Annex I - Global Observing System

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

1. Publication No. 9, Volume A - Stations

1.2 Deleted stations
1.3 Changes to existing stations
1.5 Temporary changes

To: Permanent Representatives (or Directors of Meteorological or Hydro-meteorological Services) of Members of WMO (PR-4597)
Directors of Meteorological Services of non-Member countries (MC-2441)
Presidents and Vice-Presidents of Regional Associations (P.RA-1266)
Presidents and Vice-Presidents of Technical Commissions (P.TC-1384)
Chairmen of CBS Working Groups
Secretary-General of ICAO
Director-General of IATA
Secretary of IOC
Director-General of ASECNA
Director of ECMWF

4. Automatic marine stations

5. ARGOS

5.1 ARGOS monthly status report

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

D. Information on operational status of space sub-system

Annex III - Global Telecommunication System

C. Information on the operation of the GTS

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

2.3 Changes in schedules/technical specifications

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 6, "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,

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

# Annex I - Global Observing System

Date: January 1991

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

1. Publication No. 9, Volume A - Stations

1.2 Deleted stations

| | |
|---|---|
| 64909 | EKONA |
| 64912 | TIKO |

1.3 Changes to existing stations

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 64870 | NGAOUNDERE | X | X | X | X | X | X | X | X | | | P | P | P | P | / |
| 64880 | BANYO | X | X | X | X | X | X | X | . | | | . | . | . | . | / |
| 64882 | MEIGANGA | X | X | X | X | X | X | X | . | | | . | . | . | . | / |
| 64890 | MAMFE | X | X | X | X | X | X | X | X | | | . | . | . | . | / |
| 64893 | KOUNDJA | X | X | X | X | X | X | X | . | | | P | P | P | P | / |
| 64901 | BETARE-OYA | X | X | X | X | X | X | X | . | | | . | . | . | . | / |
| 64931 | BATOURI | X | X | X | X | X | X | X | X | | | P | P | P | P | / |
| 64960 | ABONG-MBANG | X | X | X | X | X | X | X | X | | | . | . | . | . | / |
| 64961 | LOMIE | X | X | X | X | X | X | X | X | | | . | . | . | . | / |
| 71069 | SLAVE LAKE, ALTA | X | . | X | . | X | . | X | . | | H00-24 | . | . | . | P | / |
| 71073 | FORT RELIANCE, NWT | X | . | . | . | X | . | X | . | | H00-03, 12-23 | . | . | . | . | / |
| 89869 | UNIV.WI.ID. 8915 | 79°57'S164°58'E | | | | | | | 75 | - | | | | | | |
| | | X | X | X | X | X | X | X | X | | | . | . | . | . | AUT/ |

1.5 Temporary changes

Notification from China that the replacement of station 58367 SHANGHAI by 58362 SHANGHAI has been postponed until further notice.

Notification from Argentina that for technical reasons 12 UTC radiosonde observations are being temporarily suspended at station 87155 RESISTENCIA AERO.

4. Automatic marine stations

Canada

Data from moored and drifting buoys are collected via geostationery 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 Terminal in Edmonton and distributed on the GTS using the FM 14-VIII DRIBU code.

Legend

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

Moored Buoys (North-east Pacific Ocean):

| WMO buoy Identifier | Position 21 January 1991 | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|
| 46004 | 50°56'N 135°52'W | X X X X X X X X |
| 46036 | 48°18'N 133°51'W | X X X X X X X X |
| 46181 | 53°49'N 128°51'W | X X X X X X X X |
| 46182 | 49°29'N 123°18'W | X X X X X X X X |
| 46184 | 53°56'N 138°48'W | X X X X X X X X |
| 46185 | 52°25'N 129°48'W | X X X X X X X X |
| 46204 | 51°14'N 128°27'W | • • • • • • • • |
| 46205 | 54°10'N 134°20'W | X X X X X X X X |
| 46206 | 48°50'N 126°00'W | X X X X X X X X |
| 46207 | 50°31'N 129°33'W | X X X X X X X X |
| 46208 | 52°18'N 132°25'W | X X X X X X X X |

Moored Buoys (North-west Atlantic Ocean):

| WMO buoy Identifier | Argos Identifier | Position 21 January 1991 | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|
| 41012 | 01602 | 33°36'N 071°54'W | X X X X X . . . |
| 44016 | 01605 | 38°00'N 072°54'W | X X X X X . . . |
| 44137 | 05579 | 41°14'N 061°14'W | X X X X X X X X |
| 44138 | 03434 | 44°13'N 053°36'W | X X X X X X X X |
| 44139 | 03448 | 44°19'N 057°21'W | X X X X X X X X |
| 44140 | 05576 | 42°44'N 050°36'W | X X X X X X X X |
| 44142 | 05578 | 42°30'N 064°12'W | X X X X X X X X |

Moored Buoys (Great Lakes):

| WMO buoy Identifier | Position 10 January 1991 | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|
| 45132 | 42°06'N 083°05'W | X X X X X X X X |
| 45135 | 44°42'N 075°30'W | X X X X X X X X |
| 45137 | 45°20'N 080°02'W | X X X X X X X X |

• Sensor failed

Drifting Buoys (North-east Pacific Ocean):

| WMO buoy Identifier | Argos Identifier | Position 08 January 1991 | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|
| 46632 | 12511 | 43°30'N 145°06'W | . X X X X . . . |
| 46681 | 07135 | 49°24'N 161°12'W | . X X X X . . . |
| 46684 | 07137 | 44°18'N 165°36W | . X X X X . . . |
| 46687 | 07138 | 37°54'N 138°30'W | . X X X X . . . |
| 46693 | 07140 | 36°54'N 148°16W | . X X X X . . . |
| 46694 | 07141 | 27°06N 151°54W | . X X X X . . . |
| 46695 | 07142 | 29°42'N 150°18'W | . X X X X . . . |
| 46697 | 07144 | 28°30'N 155°18'W | . X X X X . . . |
| 46703 | 06269 | 50°12'N 165°36'W | . X X X X . . . |
| 46704 | 07128 | 46°18'N 150°18'W | . X X X X . . . |
| 46705 | 07129 | 49°00'N 144°36W | . X X X X . . . |
| 46706 | 07130 | 41°12'N 133°42'W | . X X X X . . . |
| 46707 | 07131 | 26°24'N 132°24'W | . X X X X . . . |

United States of America

List of U.S.A. Ocean Data Acquisition System (ODAS) included in the January 1991 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 DRIBU code.

Legend

| Column | Observed or technical parameters |
|---|---|
| 1 | Wind direction and speed |
| 2 | Air temperature |
| 3 | Pressure |
| 4 | Pressure tendency |
| 5 | Sea-surface temperature |
| 6 | Wave period and height |
| 7 | Wave spectra |
| 8 | Drogued |

Moored Buoys:

| WMO buoy Identifier | Position 10-17 January 1991 | Observed or technical parameters 1 2 3 4 5 6 7 |
|---|---|---|
| 32302 | 18°00'S 85°06'W | * * * * * * * |
| 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 |
| 41006** | 29°18'N 77°12'W | X X X X X X X |

* Sensor/system failure.

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

Moored Buoys (continued):

| WMO buoy Identifier | Position 10-17 January 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 41008 | 30°42'N | 81°06'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 |
| 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 | . | . |
| 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 |
| 44001 | 38°24'N | 73°36'W | X | X | X | X | X | X | X |
| 44004** | 38°30'N | 70°36'W | X | X | X | X | X | X | X |
| 44005** | 42°42'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 |
| 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 | X |
| 44015 | 37°06'N | 73°36'W | * | X | X | X | X | X | X |
| 44023 | 37°30'N | 74°24'W | X | X | X | X | X | X | X |
| 44024 | 37°42'N | 74°42'W | . | . | . | . | . | . | . |
| 45001** | 48°00'N | 87°42'W | X | X | X | X | X | X | X |
| 45002** | 45°18'N | 86°24'W | * | 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 |
| 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°24'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°48'N | 137°42'W | X | X | X | X | X | X | X |
| 46010** | 46°12'N | 124°12'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 | X | X | X | X | X | X | X |
| 46022 | 40°42N | 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 |

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

* Sensor/system failure

Moored Buoys (continued):

| WMO buoy Identifier | Position 10-17 January 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 46027** | 41°48'N | 124°24'W | X | X | X | X | X | X | X |
| 46028 | 35°48'N | 121°54'W | 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 | * | * | * | * | * | * | * |
| 46042 | 36°48'N | 122°24'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 | X |
| 51003** | 19°12'N | 160°48'W | * | X | X | X | X | X | X |
| 51004** | 17°30'N | 152°36'W | X | X | X | X | X | X | X |
| 52009 | 13°12'N | 144°30'E | * | * | * | * | * | * | * |

Drifting Buoys:

| WMO buoy Identifier | Argos Identifier | Position 7-14 January 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14803 | 08844 | 23°S | 051°E | . | X | X | . | X | . | . | . |
| 14804 | 08845 | 25°S | 051°E | . | X | X | . | X | . | . | . |
| 17803 | 05571 | 39°S | 089°E | X | * | X | . | X | . | . | X |
| 17804 | 12300 | 41°S | 074°E | . | * | X | . | X | . | . | . |
| 17805 | 12304 | 37°S | 075°E | . | * | X | . | X | . | . | . |
| 17806 | 12306 | 41°S | 007°W | . | X | X | . | X | . | . | . |
| 32814 | 07491 | 18°S | 085°W | . | X | X | . | X | . | . | . |
| 33509 | 12307 | 45°S | 041°W | . | X | X | . | X | . | . | . |
| 33510 | 12308 | 48°S | 018°W | . | X | X | . | X | . | . | . |
| 33826 | 12296 | 57°S | 017°E | . | X | X | . | X | . | . | . |
| 33827 | 12297 | 49°S | 031°E | . | X | X | . | X | . | . | . |
| 33828 | 12298 | 45°S | 037°E | . | X | X | . | X | . | . | . |
| 33830 | 12305 | 45°S | 007°E | . | X | X | . | X | . | . | . |
| 54829 | 06762 | 38°S | 157°W | . | * | X | . | X | . | . | . |
| 54830 | 06763 | 47°S | 123°W | . | * | X | . | X | . | . | . |
| 54831 | 06764 | 47°S | 121°W | . | X | X | . | . | . | . | . |
| 54832 | 06585 | 41°S | 164°W | X | X | X | . | X | . | . | X |
| 54833 | 06586 | 46°S | 144°W | X | X | X | . | X | . | . | X |
| 54834 | 06583 | 36°S | 157°W | X | X | X | . | X | . | . | X |
| 54835 | 06731 | 35°S | 156°W | . | X | X | . | X | . | . | . |
| 55802 | 08843 | 24°S | 053°E | . | X | X | . | X | . | . | . |
| 55803 | 05136 | 58°S | 161°E | . | X | X | . | X | . | . | . |
| 56827 | 09221 | 59°S | 133°E | . | * | X | . | * | . | . | . |
| 56829 | 09222 | 22°S | 035°E | . | . | X | . | . | . | . | . |
| 56831 | 09217 | 09°S | 114°E | . | . | X | . | . | . | . | . |
| 56832 | 09219 | 18°S | 109°E | . | X | X | . | X | . | . | . |

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

* Sensor/system failure

## 5. ARGOS service

### 5.1 ARGOS monthly status report

As at 2 January 1991 the Argos service was handling reports from 564 drifting buoys, 122 moored buoys, 50 balloons, 35 ships, 53 animal trackings, 402 fixed stations, 64 boats and 15 miscellaneous platforms. DRIBU reports from 65 drifting buoys, SHIP reports from 1 selected ship and BATHY reports from 27 selected ships were transmitted to the RTH Paris and DRIBU reports from 230 drifting 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 | 55511 | 00418 |
| | 56001 | 04873 |
| | 56501 | 02934 |
| | 56502 | 02936 |
| | 56544 | 02935 |
| | 56546 | 02951 |
| | 56547 | 04870 |
| | 56548 | 04871 |
| | 56549 | 04872 |
| | 9VWM* | 09187 |
| | VMAP* | 09188 |
| | 9VUU* | 09190 |
| | S6FK* | 09193 |
| | VJBQ* | 09196 |
| | GYRW* | 09197 |
| | VJDP* | 09198 |
| | GYSE* | 09199 |
| Canada | 44006 | 04004 |
| | 47558 | 09785 |
| France | 13531 | 05832 |
| | 41056 | 00332 |
| | 44609 | 05799 |
| | 44610 | 10102 |
| | 62503 | 05790 |
| | 62513 | 05829 |
| | 62516 | 05833 |
| | 62518 | 10104 |
| | 62519 | 10106 |
| | 64516 | 05796 |
| | 64517 | 10105 |
| | 64527+ | 05822 |
| | 3EAJ* | 04711 |
| | 3EBD* | 04725 |
| | A3BZ* | 04709 |
| | C6HL* | 04705 |

* PTT's transmitting at irregular intervals.

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| France (continued) | ELEH* | 08746 |
| | FNCZ* | 04724 |
| | FNJT* | 04722 |
| | FNOM* | 04701 |
| | FNA?* | 04706 |
| | FNQB* | 04726 |
| | FNZO* | 04716 |
| | FNZP* | 04719 |
| | FNZQ* | 04703 |
| | FPYO* | 04729 |
| | FWQP* | 08747 |
| | HPEW* | 04720 |
| | REPO* | 04717 |
| | ZDBE* | 04718 |
| | OIOI* | 08742 |
| Germany | 71524 | 03315 |
| | 71529 | 08057 |
| | 71532 | 08060 |
| | 71540 | 08068 |
| Iceland | 44616 | 04183 |
| | 64565+ | 04184 |
| Japan | 52060 | 08718 |
| | 52064 | 08724 |
| Netherlands | 44615+ | 03037 |
| | 64564+ | 03036 |
| New Zealand | 55579 | 06435 |
| | 55582 | 07175 |
| | 55583 | 07179 |
| | 55584 | 07178 |
| | 55585 | 07177 |
| Norway | 17001 | 01591 |
| | 17003 | 01758 |
| | 44624 | 03722 |
| | 44743 | 01298 |
| | 63002 | 09407 |
| | 63004 | 09403 |
| | 63512 | 01792 |
| | 65581 | 01299 |
| | 71001 | 01757 |
| | 74001 | 09405 |

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

* PTT's transmitting at irregular intervals.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| South Africa** | 17512 | 09096 |
| | 17513+ | 09092 |
| | 17517 | 08268 |
| | 17520 | 09094 |
| | 17522 | 09095 |
| | 17523 | 09086 |
| | 17524 | 09099 |
| | 17527 | 09087 |
| | 17528 | 08260 |
| | 17529 | 09088 |
| | 17530 | 09093 |
| | 17531 | 08262 |
| | 17532 | 09090 |
| United Kingdom | 44617 | 07695 |
| | 44728 | 04039 |
| | 44730+ | 06298 |
| | 62608 | 03919 |
| | 62803 | 06299 |
| | 62804 | 06305 |
| | 62805 | 06285 |
| United States of America | 12847 | 11191 |
| | 14803 | 08844 |
| | 14804 | 08845 |
| | 17803+ | 05571 |
| | 17804 | 12300 |
| | 17805 | 12304 |
| | 17806 | 12306 |
| | 17808 | 05118 |
| | 25536 | 12780 |
| | 25537 | 12789 |
| | 31502 | 09844 |
| | 32513 | 11910 |
| | 32514 | 10836 |
| | 32515 | 11898 |
| | 32516 | 11911 |
| | 32519 | 11905 |
| | 32520 | 11577 |
| | 32521 | 11909 |
| | 32522 | 10808 |
| | 32523 | 10809 |
| | 32525 | 11192 |
| | 32526+ | 11193 |
| | 32528 | 10820 |
| | 32529 | 11194 |

** 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.

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

| Operating country | WMO identifier/call sign | Argos Identifier |
|---|---|---|
| United States of America (continued) | 32531 | 10812 |
| | 32532 | 11897 |
| | 32534 | 11196 |
| | 32535 | 11907 |
| | 32537 | 10839 |
| | 32538 | 11172 |
| | 32539 | 11875 |
| | 32540 | 11904 |
| | 32541 | 11656 |
| | 32544 | 11908 |
| | 32545 | 10849 |
| | 32546 | 11160 |
| | 32547 | 11201 |
| | 32549 | 11163 |
| | 32550 | 11894 |
| | 32552 | 11195 |
| | 32553 | 10841 |
| | 32554 | 10840 |
| | 32559 | 11900 |
| | 32560 | 11572 |
| | 32814 | 07491 |
| | 33509 | 12307 |
| | 33510 | 12308 |
| | 33826 | 12296 |
| | 33827 | 12297 |
| | 33828 | 12298 |
| | 33830 | 12305 |
| | 41012 | 01602 |
| | 41014 | 01606 |
| | 41503 | 12666 |
| | 41504 | 12668 |
| | 41510 | 09845 |
| | 41511 | 09846 |
| | 41512 | 09857 |
| | 41513 | 09853 |
| | 43502 | 11168 |
| | 43503 | 11874 |
| | 43504 | 11198 |
| | 43508 | 11171 |
| | 43510 | 11628 |
| | 43801 | 06898 |
| | 44016 | 01605 |
| | 44017 | 01604 |
| | 44020 | 01609 |
| | 44021 | 01608 |
| | 44502 | 04570 |
| | 44504 | 04561 |
| | 44505 | 09878 |

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 44506 | 04542 |
| | 44510 | 04530 |
| | 44518 | 09841 |
| | 44519 | 09851 |
| | 44520 | 09856 |
| | 44521 | 12753 |
| | 44522 | 12754 |
| | 44523 | 12772 |
| | 44524 | 12750 |
| | 44528 | 12768 |
| | 44529 | 12746 |
| | 44530 | 12770 |
| | 44532 | 12743 |
| | 44534 | 12771 |
| | 44536 | 12744 |
| | 44537 | 12747 |
| | 44538 | 12762 |
| | 44539 | 12751 |
| | 44540 | 12752 |
| | 44541 | 12763 |
| | 44542 | 12764 |
| | 44543 | 12765 |
| | 44545 | 12767 |
| | 44551 | 12453 |
| | 46510 | 12672 |
| | 46511 | 12690 |
| | 46512 | 12691 |
| | 46514 | 12693 |
| | 47601 | 12785 |
| | 48518 | 12782 |
| | 48519 | 12783 |
| | 51502 | 12642 |
| | 51510 | 11671 |
| | 51511 | 06883 |
| | 51513 | 11663 |
| | 51514 | 11675 |
| | 51515 | 11678 |
| | 51516 | 11632 |
| | 51517 | 11676 |
| | 51518 | 15077 |
| | 51519 | 11646 |
| | 51520 | 11653 |
| | 51801 | 11197 |
| | 51802 | 11650 |
| | 51803 | 11912 |
| | 51805+ | 11622 |
| | 51806 | 11625 |
| | 51809 | 11199 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51810 | 15087 |
| | 51811 | 11644 |
| | 51812 | 11657 |
| | 51813 | 11569 |
| | 51814 | 11682 |
| | 51816 | 11620 |
| | 51817 | 11655 |
| | 51818 | 11630 |
| | 51819 | 11645 |
| | 51820 | 11687 |
| | 51821 | 11690 |
| | 51822 | 11870 |
| | 51824 | 11685 |
| | 51825 | 11686 |
| | 51826 | 11871 |
| | 51827 | 11688 |
| | 51828 | 11695 |
| | 51829 | 11202 |
| | 51830 | 15088 |
| | 51831 | 11689 |
| | 51832 | 11691 |
| | 51833 | 11872 |
| | 51834 | 11170 |
| | 51835 | 11638 |
| | 51836 | 11698 |
| | 51837 | 11642 |
| | 51839 | 11700 |
| | 51840 | 11536 |
| | 51841 | 15098 |
| | 51842 | 11702 |
| | 51843 | 11703 |
| | 51844 | 11542 |
| | 51845 | 11548 |
| | 51846 | 11692 |
| | 51847 | 11706 |
| | 51850 | 11662 |
| | 51851 | 11547 |
| | 51853 | 11694 |
| | 51855 | 11705 |
| | 51856 | 11559 |
| | 51857 | 11667 |
| | 51858 | 11668 |
| | 51862 | 11670 |
| | 51863 | 11564 |
| | 51865 | 11623 |
| | 51866 | 11664 |
| | 51867 | 11666 |
| | 51868 | 11669 |

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51869 | 11674 |
| | 51870 | 11679 |
| | 51871 | 11693 |
| | 51872 | 11696 |
| | 51873 | 11699 |
| | 51874 | 11701 |
| | 51875 | 11704 |
| | 51876 | 11683 |
| | 51877 | 15073 |
| | 51878 | 15072 |
| | 52802 | 10822 |
| | 52807 | 10824 |
| | 52813 | 10835 |
| | 52827 | 10823 |
| | 52852 | 11629 |
| | 52853 | 11624 |
| | 52854 | 11626 |
| | 52855 | 11631 |
| | 52857 | 11640 |
| | 52858 | 11649 |
| | 52861 | 11637 |
| | 52862 | 11560 |
| | 52865 | 11567 |
| | 52866 | 11887 |
| | 52867 | 11893 |
| | 52868 | 11876 |
| | 52872+ | 11890 |
| | 52873 | 11892 |
| | 52875 | 11896 |
| | 52877 | 11883 |
| | 52878 | 11885 |
| | 53807 | 11877 |
| | 53809 | 11886 |
| | 54829 | 06762 |
| | 54830 | 06763 |
| | 54831 | 06764 |
| | 54832+ | 06585 |
| | 54833+ | 06586 |
| | 54834+ | 06583 |
| | 54835 | 06731 |
| | 55802 | 08843 |
| | 56827 | 09221 |
| | 56829 | 09222 |
| | 56831 | 09217 |
| | 62671 | 09847 |
| | 62672 | 09859 |
| | 62673 | 12474 |
| | 63549+ | 01534 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 64539 | 12787 |
| | 64577 | 04126 |
| | 64578 | 04834 |
| | 64579 | 11720 |
| | 64580 | 12444 |
| | 64581 | 12486 |
| | 64582 | 12447 |
| | 64583 | 12456 |
| | 64584 | 12458 |
| | 64585 | 12473 |
| | 64586 | 12471 |
| | 65505 | 04632 |

**ATLAS buoys**

**This report does not list the ATLAS buoys.**

**Note**

**Members operating Argos Local Users Terminals (LUTs) are invited to submit to the Secretariat by telex, the list of platforms entering reports into the GTS through their LUTs, effective on or around the 20th of each month.**

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

In view of the difficulties experienced at present in identifying non-implemented observing stations or implemented stations which are closed or suspended for a certain period, or stations making observations but not reaching their NMCs, the ninth session of the CBS Advisory Working Group recommended that a special table be added to the WWW monthly operational letter to serve as feed-back from Members to the Secretariat on any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations.

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

D. Information on operational status of space sub-system

1. METEOSAT - Latest Operational News 1/3 (updated on 18 January 1991)

METEOSAT-4 is the operational satellite at 0 degree E/W and all missions are nominal.

(a) Scheduled interruptions for week 4.

METEOSAT-4 decontamination operations will start on Tuesday 22 January 1991 with slot 19 at 0900 UTC. Slot 18 will not be available. From slot 19 onwards METEOSAT-3 images will be disseminated via METEOSAT-4.

In order to allow detectors more time to cool down to the nominal temperature split mission operations will last for 72 hours. Nominal operations with METEOSAT-4 will resume on Friday, 25 January 1991. Slot 18 will not be disseminated during switch over.

(b) Interference

Currently some interference is being observed on MDD and dissemination channel A2. It is caused by the Chinese polar orbiting satellite FY1-B.

2. GOES - Operational News

New problems with thermal distortion of primary mirrors of GOES-NEXT were reported. The current schedule indicates that the first of these new satellites, GOES-I, should be ready for launch in June 1992. The new problem could, according to unofficial estimates, delay the launch further for anything between 2 and 12 months.

Meanwhile USA continues to use GOES-7 as a one satellite replacement for the nominal GOES-E and GOES-W configuration EUMETSAT has contingency plans to replace GOES-7 with METEOSAT-3 in an emergency, provided that METEOSAT-3 is not needed to support routine Meteosat operations at that time.

3. Polar orbiting status report (Updated 01 - January 1991)

NOAA-9: (Stand by)

NOAA-10: (Operational), morning descending, operational sensors - AVHRR (HRPT,APT), DCS, MSU, SAR, SEM. ERBE

NOAA-11; (Operational), afternoon ascending, operational sensors - AVHRR (HRPT,APT), SSU, DCS, SBUV, SAR.

| | HRPT | APT | BCN |
|---|---|---|---|
| NOAA-9 | 1707(HSB) | 137.62(VTX2) | 137.77(BTX2) |
| NOAA-10 | 1698(LSB) | 137.50(VTX1) | 136.77(BTX1) |
| NOAA-11 | 1707(HSB) | 137.62(VTX2) | 137.77(BTX2) |

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

(explanatory notes overleaf)

Global Exchange/Regional Exchange (delete as appropriate) Country: _____

| Station index number | Bulletin identification TTAAii CCCC | Implementation of observing programme 00 03 06 09 12 15 18 21 | Alternate observing station | Remarks |
|---|---|---|---|---|
| 1. SYNOP | | | | |
| 2. TEMP | | | | |
| 3. PILOT | | | | |

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

1. Separate tables should be prepared for global exchange and regional exchange respectively. These tables should contain information concerning any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations given in Attachment I-4 of the Manual on the GTS, Volume I for global exchange and, as applicable, Attachments AF-I, AI-1, SA-1, NA-1, PS-1 and EU-1 of the Manual on the GTS, Volume II for regional exchange.

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

   (a) In the column "Station index number", the index number (IIiii) of each station should be entered in case of any changes in the observing programmes of the stations;

   (b) In the column "Bulletin identification", the TTAAii CCCC of the abbreviated heading of the meteorological bulletins which contains reports from the station should be inserted;

   (c) In the column "Implementation of observing programme", "X" for implementation and "-" for non-implementation should be inserted as appropriate. In order to easily identify changes in the programme, this should be marked in red;

   (d) In the column "Alternate observing station", the index number (IIiii) of an alternate observing station should be inserted in case another station is available with a view to filling gaps which are caused by suspension of observing programmes of the original station;

   (e) The required information concerning the observing programme of the alternate station should be inserted in the next horizontal line of the original station;

   (f) In the column "Remarks", reasons of temporary suspension of observing programmes and an expected date of resumption of the programmes should be given as far as possible. Non-standard collection and/or distribution times should also be included.

3. These tables should be sent to the Secretariat before the 1st of the month for inclusion of the changes in the monthly operational letter, as appropriate.

# Annex III - Global Telecommunication System

Date: January 1991

C. Information on the operation of the GTS

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

2.3 Changes in schedules/technical specifications

VI-iii OFFENBACH/MAIN-MAINFLINGEN, Programme 1 (DCF 54) radio-facsimile broadcast effective 25 January 1991 changes as follows:

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|
| 0608 | 10 | 120/288 | AUEU EDZW<br>FUEU EDZW | 97882 | 0000<br>0000 | D30<br>D30 | 850 hPa H+T<br>(H+24, H+48, H+72)<br>850 hPa H+T (EM) No.18 |
| 0619 | 10 | 120/288 | AUEU EDZW<br>FUEU EDZW | 97855 | 0000<br>0000 | D30<br>D30 | 500 hPa H+T<br>(H+24, H+48, H+72)<br>500 hPa H+T (EM) No. 19 |
| 0630 | 10 | 120/288 | FUEU EDZW | 97971 | 0000 | D30 | (H+24), 700, 300, 200, 100 hPa<br>H+T (EM) No. 20 |
| 0741 | 19 | 120/576 | FSEU EDZW<br>FUEU EDZW | 97963 | 0000<br>0000 | D60<br>D60 | (H+12, H+36, H+60, H+84)<br>500 hPaH+T, Surface P,<br>850 hPa T, 700 hPa F (EM/GM)<br>No. 24 |
| 0810 | 19 | 120/576 | FSEU EDZW<br>FUEU EDZW | 97964 | 0000<br>0000 | D60<br>D60 | (H+96, H+120, H+144, H+168)<br>500 hPa H+T, Surface P,<br>850 hPa T, 700 hPa F (GM) No. 26 |
| 1808 | 10 | 120/288 | FUEU EDZW | 97973 | 1200 | D30 | (H+24) 700, 300, 200, 100 hPa<br>H+T (EM) No. 60 |
| 1819 | 10 | 120/288 | AUEU EDZW<br>FUEU EDZW | 97857 | 1200<br>1200 | D30<br>D30 | 500 hPa H+T<br>(H+24, H+48, H+72) 500 hPa<br>H+T (EM) No. 61 |
| 1830 | 10 | 120/288 | AUEU EDZW<br>FUEU EDZW | 97884 | 1200<br>1200 | D30<br>D30 | 850 hPa H+T<br>(H+24, H+48, H+72) 850 hPa<br>H+T (EM) No. 62 |
| 1941 | 19 | 120/576 | FSEU EDZW<br>FUEU EDZW | 97965 | 1200<br>1200 | D60<br>D60 | (H+24, H+48, H+72, H+96)<br>500 hPa H+T, Surface P,<br>850 hPa T,<br>700 hPa F (EM/GM) No. 66 |

Insert under 'Note:' (page C-VI-iii-12-8)

EM European Model (20 levels, 50 km) (Forecast times up to H+78)

GM Global Model (19 levels, 1,125 degrees) (Forecast times H+84 up to H+168)

On the different charts the following abbreviations will be used:

'EM3MO' for the European Model
'P106A' (Analyses) 'P106V' (Forecasts) for the Global Model.

The changes of all remaining charts of the above programmes from 'BKF'/BKN' into 'EM/GM' will probably be completed by the end of February 1991.

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W/OIS

Annexes: 3

GENEVA, 28 February 1991

Subject : Monthly letter on the operation of the World Weather Watch (WWW) and Marine Meteorological Services (MMS) February 1991

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

Dear Sir/Madam,

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

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

Annex I - Global Observing System

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

1. Publication No. 9, Volume A - Stations

1.1 New Stations
1.2 Deleted stations
1.3 Changes to existing stations
1.5 Temporary changes

4. Automatic marine stations

5. ARGOS

5.1 ARGOS monthly status report

To: Permanent Representatives (or Directors of Meteorological or Hydro-meteorological Services) of Members of WMO (PR-4602)
Directors of Meteorological Services of non-Member countries (MC-2443)
Presidents and Vice-Presidents of Regional Associations (P.RA-1267)
Presidents and Vice-Presidents of Technical Commissions (P.TC-1385)
Chairmen of CBS Working Groups
Secretary-General of ICAO
Director-General of IATA
Secretary of IOC
Director-General of ASECNA
Director of ECMWF

6. 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)

1.5 Bulletins for oceanographic data

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

2.3 Changes in schedules/technical specifications

Annex IV - Codes

B. Manual on Codes

3. National practices

3.3 Changes to codes or procedures

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 6, "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: February 1991

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

### 1. Publication No. 9, Volume A - Stations

#### 1.1 New stations

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 07039 | VALOGNES | 49°31'N | 01°30'W | - | 61 | X X X X X X X X | | . . . . | AUT/ |
| 17045 | ARTVIN | 41°10'N | 41°49'E | 30 | 30 | X X X X X X X X | H00-24 | . . . . | / |
| 17052 | KIRKLARELI | 41°44'N | 27°13'E | 232 | 232 | X X X X X X X X | H00-24 | . . . . | / |
| 17069 | ADAPAZARI | 40°47'N | 30°25'E | 30 | 30 | X X . X X X X X | H04-24 | . . . . | / |
| 17085 | AMASYA | 40°39'N | 35°51'E | 412 | 412 | X X X X X X X X | H00-24 | . . . . | / |
| 17086 | TOKAT | 40°18'N | 36°34'E | 608 | 608 | X X X X X X X X | H00-24 | . . . . | / |
| 17099 | AGRI | 39°43'N | 43°03'E | 1632 | 1632 | | | | |
| | | | | 850 | hPa | X X X X X X X X | H00-24 | . . . . | / |
| 17140 | YOZGAT | 39°50'N | 34°49'E | 1298 | 1298 | | | | |
| | | | | 850 | hPa | X X X X X X X X | H00-24 | . . . . | / |
| 17193 | NEVSEHIR | 38°37'N | 34°43'E | 1260 | 1260 | | | | |
| | | | | 850 | hPa | X X X X X X X X | H00-24 | . . . . | / |
| 17203 | BINGOL | 38°52'N | 40°30'E | 1177 | 1177 | | | | |
| | | | | 850 | hPa | X X X X X X X X | H00-24 | . . . . | / |
| 17204 | MUS | 38°44'N | 41°31'E | 1320 | 1320 | | | | |
| | | | | 850 | hPa | X X X X X X X X | H00-24 | . . . . | / |
| 17275 | MARDIN | 37°18'N | 40°44'E | 1050 | 1050 | | | | |
| | | | | 850 | hPa | X X X X X X X X | H00-24 | . . . . | / |
| 17282 | BATMAN | 37°52'N | 41°10'E | 540 | 540 | X X X X X X X X | H00-24 | . . . . | / |
| 80434 | VALLE DE LA PASCUA | 09°13'N | 66°01'W | - | 125 | X X . X X X X X | H09-24 | . . . . | / |
| 91723 | NUKUNONU | 09°12'S | 171°54'W | - | 3 | X X X X X X X X | | . . . . | / |
| 91819 | SUWARROW | 13°14'S | 163°05'W | - | 3 | X X X X X X X X | | . . . . | / |

#### 1.2 Deleted stations

| | |
|---|---|
| 02141 | NAUSTA |
| 07024 | CHERBOURG |

#### 1.3 Changes to existing stations

| | | | | | | |
|---|---|---|---|---|---|---|
| 02160 | NATTAVAARA | . X X X X . . . | H05,11 | . . . . | . | / |
| 02454 | UTVALNAS | X X X X X X X X | | . . . . | . | AUT/ |
| 02480 | NORRTALJE/VASBY | X X X X X X X . | | . . . . | . | / |
| 17062 | ISTANBUL/GOZTEPE | X X X X X X X X | H00-24 | RW . RW | . | / |
| 17130 | ANKARA/CENTRAL | X X X X X X X X | H00-24 | RW . RW | . | / |

1.5 Temporary changes

Notification from New Zealand that as from 11 February 1991 at 1200 UTC station 93012 KAITAIA changed from manual processing of radiosonde observations to the vaisala pc-cora system.

Notification from Portugal that from 0000 UTC on 28 February 1991 until 2359 UTC on 4 March 1991 some difficulties may be experienced in transmission over national and international circuits of meteorological data related to Portugal, Azores and Madeira.

End of daylight saving time in Australia

Notification from Australia of the end of daylight saving time (summer time) as follows.

(a) Australian summer time will cease in Queensland, New South Wales, the Australian capital Territory, Victoria and South Australia at 1500 UTC on 2 March 1991, and in Tasmania at 1500 UTC on 30 March 1991.

(b) Australian summer time was not implemented in Western Australia and in the Northern Territory.

(c) Surface observations in Queensland, New South Wales, the Australian Capital Territory, Victoria and South Australia will revert to the normal programme from 1500 UTC on 2 March 1991.

(d) Surface observations in Tasmania will revert to the normal programme from 1500 UTC on 30 March 1991.

(e) No changes will be made to time of surface observations in Western Australia and the Northern Territory.

(f) Upper air observations will revert to the normal programme at all Australian stations from 1500 UTC on 2 March 1991.

4. Automatic marine stations

United States of America

List of U.S.A. Ocean Data Acquisition System (ODAS) included in the February 1991 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 DRIBU code.

Legend

| Column | Observed or technical parameters |
|---|---|
| 1 | Wind direction and speed |
| 2 | Air temperature |
| 3 | Pressure |
| 4 | Pressure tendency |
| 5 | Sea-surface temperature |
| 6 | Wave period and height |
| 7 | Wave spectra |
| 8 | Drogued |

Moored Buoys:

| WMO buoy Identifier | Position 14-21 February 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 32302 | 18°00'S | 85°06'W | • | • | • | • | • | • | • |
| 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 |
| 41006** | 29°18'N | 77°24'W | X | X | X | X | X | X | X |
| 41008 | 30°42'N | 81°06'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 |
| 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 | . | . |
| 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 |
| 44001 | 38°24'N | 73°36'W | X | X | X | X | X | X | X |
| 44004** | 38°30'N | 70°36'W | X | X | X | X | X | X | X |
| 44005** | 42°42'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 |
| 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 | X |
| 44015 | 37°30'N | 73°24'W | X | X | X | X | X | X | X |
| 44023 | 37°30'N | 74°24'W | X | X | X | X | X | X | X |
| 44024 | 37°42'N | 74°42'W | . | . | . | . | . | . | . |
| 45001** | 48°00'N | 87°42'W | X | X | X | X | X | X | X |
| 45002** | 45°18'N | 86°24'W | • | 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 |
| 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°24'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°48'N | 137°42'W | • | • | • | • | • | • | • |
| 46010** | 46°12'N | 124°12'W | X | X | X | X | X | X | X |

* Sensor/system failure.

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

Moored Buoys (continued):

| WMO buoy Identifier | Position 14-21 February 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 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 | X | X | X | X | X | X | X |
| 46022 | 40°42N | 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 | X |
| 46028 | 35°48'N | 121°54'W | X | X | X | X | • | X | X |
| 46030 | 40°24'N | 124°30'W | X | X | X | X | • | X | X |
| 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 | • | • | • | • | • | • | • |
| 46042 | 36°48'N | 122°24'W | X | X | X | X | X | X | X |
| 46045 | 33°48'N | 118°24'W | X | X | X | X | X | X | X |
| 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°12'N | 160°48'W | X | X | X | X | X | X | X |
| 51004** | 17°30'N | 152°36'W | . | . | . | . | . | . | . |

Drifting Buoys:

| WMO buoy Identifier | Argos Identifier | Position 20-21 February 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14803 | 08844 | 22°S | 050°E | . | X | X | . | X | . | . | . |
| 14804 | 08845 | 30°S | 046°E | . | X | X | . | X | . | . | . |
| 17803 | 05571 | 40°S | 089°E | X | • | X | . | X | . | . | X |
| 17804 | 12300 | 40°S | 082°E | . | • | X | . | X | . | . | . |
| 17805 | 12304 | 36°S | 078°E | . | • | X | . | X | . | . | . |
| 17806 | 12306 | 39°S | 005°W | . | X | X | . | X | . | . | . |
| 32814 | 07491 | 18°S | 085°W | . | X | X | . | X | . | . | . |
| 33509 | 12307 | 45°S | 045°W | . | X | X | . | X | . | . | . |
| 33510 | 12308 | 46°S | 007°W | . | X | X | . | X | . | . | . |
| 33826 | 12296 | 59°S | 025°E | . | X | X | . | X | . | . | . |
| 33827 | 12297 | 48°S | 047°E | . | X | X | . | X | . | . | . |
| 33828 | 12298 | 46°S | 043°E | . | X | X | . | X | . | . | . |
| 33830 | 12305 | 45°S | 018°E | . | X | X | . | X | . | . | . |
| 54829 | 06762 | 39°S | 156°W | . | • | X | . | X | . | . | . |
| 54830 | 06763 | 46°S | 117°W | . | • | X | . | X | . | . | . |
| 54831 | 06764 | 46°S | 114°W | . | X | X | . | X | . | . | . |
| 54832 | 06585 | 41°S | 165°W | X | X | X | . | X | . | . | X |
| 54833 | 06586 | 46°S | 144°W | X | X | X | . | X | . | . | X |
| 54834 | 06583 | 36°S | 154°W | X | X | X | . | X | . | . | X |
| 54835 | 06731 | 37°S | 157°W | . | X | X | . | X | . | . | . |

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

• Sensor/system failure

Drifting Buoys (continued):

| WMO buoy Identifier | Argos Identifier | Position 20-21 February 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 55802 | 08843 | 27°S | 052°E | . X X . X . . . |
| 55803 | 05136 | 60°S | 175°E | . X X . X . . . |
| 56827 | 09221 | 59°S | 143°E | . * X . * . . . |
| 56831 | 09217 | 09°S | 114°E | . * X . * . . . |
| 56832 | 09219 | 12°S | 110°E | . . X . . . . . |

* Sensor/system failure

## 5. ARGOS service

### 5.1 ARGOS monthly status report

As at 6 February1991 the Argos service was handling reports from 612 drifting buoys, 137 moored buoys, 4 balloons, 37 ships, 95 animal trackings, 410 fixed stations, 110 boats and 43 miscellaneous platforms. DRIBU reports from 56 drifting buoys and BATHY reports from 28 selected ships were transmitted to the RTH Paris and DRIBU reports from 224 drifting 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 | 55511 | 00418 |
| | 56001 | 04873 |
| | 56501 | 02934 |
| | 56502 | 02936 |
| | 56503 | 08035 |
| | 56504 | 08036 |
| | 56544 | 02935 |
| | 56546 | 02951 |
| | 56547 | 04870 |
| | 56548 | 04871 |
| | 56549 | 04872 |
| | 9VBZ* | 09195 |
| | VMAP* | 09194 |
| | 9VUU* | 09190 |
| | 9VWM* | 09187 |
| | GYRW* | 09197 |
| | GYSA* | 09189 |
| | GYSE* | 09199 |
| | S6FK* | 09193 |
| | VJBQ | 09196 |
| Canada | 47558 | 09785 |
| | 47559 | 04004 |

* PTT's transmitting at irregular intervals.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| France | 13531 | 05832 |
| | 44610 | 10102 |
| | 62503 | 05790 |
| | 62513 | 05829 |
| | 62516 | 05833 |
| | 62518 | 10104 |
| | 62519+ | 10106 |
| | 64516 | 05796 |
| | 64517+ | 10105 |
| | 3EAJ* | 04711 |
| | 3EBD* | 04725 |
| | A3BZ* | 04709 |
| | C6HL* | 04705 |
| | ELEH* | 08746 |
| | FNCZ* | 04724 |
| | FNGB* | 04733 |
| | FNGS* | 04707 |
| | FNJT* | 04722 |
| | FNOM* | 04701 |
| | FNAP* | 04706 |
| | FNZO* | 04716 |
| | FNZP* | 04719 |
| | FNZQ* | 04703 |
| | FPYO* | 04729 |
| | FWQP* | 08747 |
| | GQEK* | 04708 |
| | HPEW* | 04720 |
| | ZDBE* | 04718 |
| Germany | 71524 | 03315 |
| | 71540 | 08068 |
| | 71543 | 08055 |
| | 71545 | 09353 |
| | 71546 | 09354 |
| | 71547 | 09355 |
| Japan | 52060 | 08718 |
| | 52064 | 08724 |
| New Zealand | 55579 | 06435 |
| | 55582 | 07175 |
| | 55583 | 07179 |
| | 55584 | 07178 |
| | 55585 | 07177 |

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

* PTT's transmitting at irregular intervals.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Norway | 17001 | 01591 |
| | 17003 | 01758 |
| | 44624+ | 03722 |
| | 44743+ | 01298 |
| | 63002 | 09407 |
| | 63004+ | 09403 |
| | 63512 | 01792 |
| | 65581 | 01299 |
| | 71001 | 01757 |
| | 74001 | 09405 |
| South Africa** | 17522 | 09095 |
| | 17523 | 09086 |
| | 17524 | 09099 |
| | 17527 | 09087 |
| | 17528 | 08260 |
| | 17529 | 09088 |
| | 17530 | 09093 |
| | 17532 | 09090 |
| United Kingdom | 44617 | 07695 |
| | 62608 | 03919 |
| | 62803 | 06299 |
| | 62804 | 06305 |
| | 62805 | 06285 |
| United States of America | 12847 | 11191 |
| | 14803 | 08844 |
| | 14804 | 08845 |
| | 17803+ | 05571 |
| | 17804 | 12300 |
| | 17805 | 12304 |
| | 17806 | 12306 |
| | 25536 | 12780 |
| | 31502 | 09844 |
| | 32513 | 11910 |
| | 32514 | 10836 |
| | 32515 | 11898 |
| | 32516 | 11911 |
| | 32517 | 15093 |
| | 32518 | 15091 |
| | 32519 | 11905 |

\+ PTT's which were removed from the 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.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 32521 | 11909 |
| | 32522 | 10808 |
| | 32523 | 10809 |
| | 32525 | 11192 |
| | 32528 | 10820 |
| | 32529 | 11194 |
| | 32531 | 10812 |
| | 32532 | 11897 |
| | 32534 | 11196 |
| | 32535 | 11907 |
| | 32537 | 10839 |
| | 32538 | 11172 |
| | 32539 | 11875 |
| | 32540 | 11904 |
| | 32541 | 11656 |
| | 32543 | 11015 |
| | 32544 | 11908 |
| | 32545 | 10849 |
| | 32546 | 11160 |
| | 32549 | 11163 |
| | 32550 | 11894 |
| | 32552 | 11195 |
| | 32553 | 10841 |
| | 32554 | 10840 |
| | 32558 | 09276 |
| | 32560 | 11572 |
| | 32814 | 07491 |
| | 33509 | 12307 |
| | 33510 | 12308 |
| | 33826 | 12296 |
| | 33827 | 12297 |
| | 33828 | 12298 |
| | 33830 | 12305 |
| | 41012 | 01602 |
| | 41014 | 01606 |
| | 41503 | 12666 |
| | 41504 | 12668 |
| | 41510 | 09845 |
| | 41511 | 09846 |
| | 41512 | 09857 |
| | 41513 | 09853 |
| | 43502 | 11168 |
| | 43503 | 11874 |
| | 43504 | 11198 |
| | 43508 | 11171 |
| | 43510 | 11628 |
| | 43801 | 06898 |
| | 44006+ | 04004 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 44016 | 01605 |
| | 44017 | 01604 |
| | 44020 | 01609 |
| | 44021 | 01608 |
| | 44502+ | 04570 |
| | 44504 | 04561 |
| | 44505 | 09878 |
| | 44506 | 04542 |
| | 44510 | 04530 |
| | 44518 | 09841 |
| | 44519 | 09851 |
| | 44520 | 09856 |
| | 44521 | 12753 |
| | 44522 | 12754 |
| | 44523 | 12772 |
| | 44524 | 12750 |
| | 44528 | 12768 |
| | 44529 | 12746 |
| | 44530 | 12770 |
| | 44532 | 12743 |
| | 44534 | 12771 |
| | 44538 | 12762 |
| | 44540 | 12752 |
| | 44541 | 12763 |
| | 44542 | 12764 |
| | 44543 | 12765 |
| | 44544 | 12766 |
| | 44545 | 12767 |
| | 44551 | 12453 |
| | 46510 | 12672 |
| | 46511 | 12690 |
| | 46512 | 12691 |
| | 46514 | 12693 |
| | 47601 | 12785 |
| | 48518 | 12782 |
| | 48519 | 12783 |
| | 51007+ | 06475 |
| | 51510 | 11671 |
| | 51511 | 06883 |
| | 51512 | 15089 |
| | 51513 | 11663 |
| | 51514 | 11675 |
| | 51515 | 11678 |
| | 51516 | 11632 |
| | 51517 | 11676 |
| | 51518 | 15077 |
| | 51519 | 11646 |
| | 51520 | 11653 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51801 | 11197 |
| | 51802 | 11650 |
| | 51803 | 11912 |
| | 51804 | 15092 |
| | 51806 | 11625 |
| | 51807 | 15094 |
| | 51809 | 11199 |
| | 51810 | 15087 |
| | 51811 | 11644 |
| | 51812 | 11657 |
| | 51813 | 11569 |
| | 51814 | 11682 |
| | 51816 | 11620 |
| | 51817 | 11655 |
| | 51818 | 11630 |
| | 51819 | 11645 |
| | 51820 | 11687 |
| | 51821 | 11690 |
| | 51822 | 11870 |
| | 51824 | 11685 |
| | 51825 | 11686 |
| | 51826 | 11871 |
| | 51827 | 11688 |
| | 51828 | 11695 |
| | 51829 | 11202 |
| | 51830 | 15088 |
| | 51831 | 11689 |
| | 51832 | 11691 |
| | 51833 | 11872 |
| | 51834 | 11170 |
| | 51835 | 11638 |
| | 51837 | 11642 |
| | 51839 | 11700 |
| | 51841 | 15098 |
| | 51842 | 11702 |
| | 51843 | 11703 |
| | 51845 | 11548 |
| | 51846 | 11692 |
| | 51847 | 11706 |
| | 51849 | 15097 |
| | 51850 | 11662 |
| | 51853 | 11694 |
| | 51855 | 11705 |
| | 51857 | 11667 |
| | 51858 | 11668 |
| | 51861 | 15099 |
| | 51862 | 11670 |
| | 51863 | 11564 |

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51865 | 11623 |
| | 51866 | 11664 |
| | 51867 | 11666 |
| | 51868 | 11669 |
| | 51869 | 11674 |
| | 51870 | 11679 |
| | 51871 | 11693 |
| | 51872 | 11696 |
| | 51873 | 11699 |
| | 51874 | 11701 |
| | 51875 | 11704 |
| | 51876 | 11683 |
| | 51877 | 15073 |
| | 51878 | 15072 |
| | 51879 | 15074 |
| | 51880 | 15078 |
| | 51881 | 15080 |
| | 51882 | 15081 |
| | 51883 | 15083 |
| | 51884 | 15084 |
| | 51885 | 15086 |
| | 52807 | 10824 |
| | 52813 | 10835 |
| | 52827 | 10823 |
| | 52852 | 11629 |
| | 52853 | 11624 |
| | 52854 | 11626 |
| | 52857 | 11640 |
| | 52858 | 11649 |
| | 52865 | 11567 |
| | 52866 | 11887 |
| | 52867 | 11893 |
| | 52868 | 11876 |
| | 52872 | 11890 |
| | 52875 | 11896 |
| | 52877 | 11883 |
| | 52878 | 11885 |
| | 53809 | 11886 |
| | 54829 | 06762 |
| | 54830 | 06763 |
| | 54831 | 06764 |
| | 54832+ | 06585 |
| | 54833+ | 06586 |
| | 54834+ | 06583 |
| | 54835 | 06731 |
| | 55802 | 08843 |
| | 55803 | 05136 |
| | 56827 | 09221 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 56829 | 09222 |
| | 56831 | 09217 |
| | 56832 | 09219 |
| | 62671 | 09847 |
| | 62672 | 09859 |
| | 64533 | 12706 |
| | 64539 | 12787 |
| | 64577 | 04126 |
| | 64578 | 04834 |
| | 64580 | 12444 |
| | 64582 | 12447 |
| | 64583 | 12456 |
| | 64585 | 12473 |
| | 65505 | 04632 |

ATLAS buoys

This report does not list the ATLAS buoys.

Note

Members operating Argos Local Users Terminals (LUTs) are invited to submit to the Secretariat by telex, the list of platforms entering reports into the GTS through their LUTs, effective on or around the 20th of each month.

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

In view of the difficulties experienced at present in identifying non-implemented observing stations or implemented stations which are closed or suspended for a certain period, or stations making observations but not reaching their NMCs, the ninth session of the CBS Advisory Working Group recommended that a special table be added to the WWW monthly operational letter to serve as feed-back from Members to the Secretariat on any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations.

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

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

(explanatory notes overleaf)

Global Exchange/Regional Exchange (delete as appropriate) Country: _____

| Station index number | Bulletin identification TTAAii CCCC | Implementation of observing programme 00 | 03 | 06 | 09 | 12 | 15 | 18 | 21 | Alternate observing station | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. SYNOP | | | | | | | | | | | |
| 2. TEMP | | | | | | | | | | | |
| 3. PILOT | | | | | | | | | | | |

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

1. Separate tables should be prepared for global exchange and regional exchange respectively. These tables should contain information concerning any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations given in Attachment I-4 of the Manual on the GTS, Volume I for global exchange and, as applicable, Attachments AF-I, AI-1, SA-1, NA-1, PS-1 and EU-1 of the Manual on the GTS, Volume II for regional exchange.

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

   (a) In the column "Station index number", the index number (IIiii) of each station should be entered in case of any changes in the observing programmes of the stations;

   (b) In the column "Bulletin identification", the TTAAii CCCC of the abbreviated heading of the meteorological bulletins which contains reports from the station should be inserted;

   (c) In the column "Implementation of observing programme", "X" for implementation and "-" for non-implementation should be inserted as appropriate. In order to easily identify changes in the programme, this should be marked in red;

   (d) In the column "Alternate observing station", the index number (IIii) of an alternate observing station should be inserted in case another station is available with a view to filling gaps which are caused by suspension of observing programmes of the original station;

   (e) The required information concerning the observing programme of the alternate station should be inserted in the next horizontal line of the original station;

   (f) In the column "Remarks", reasons of temporary suspension of observing programmes and an expected date of resumption of the programmes should be given as far as possible. Non-standard collection and/or distribution times should also be included.

3. These tables should be sent to the Secretariat before the 1st of the month for inclusion of the changes in the monthly operational letter, as appropriate.

# Annex III - Global Telecommunication System

Date: February 1991

## C. Information on the operation of the GTS

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

#### 1.5 Bulletins for oceanographic data

SOAG01 SABM
SOBZ01 SBBR
SOCO01 SKBO
SOSN01 ESWI

SOVA01 EGRR
SOVA02 EGRR
SOVA10 RUMS
SOVB01 EGRR

SOVB02 EGRR
SOVB10 RUHB
SOVB10 RUMS
SOVC01 EGRR

SOVC02 EGRR
SOVC10 RUHB
SOVC10 RUMS
SOVD01 BIRK

SOVD01 CWHF
SOVD01 CWPF
SOVD01 EDZW
SOVD01 EGRR

SOVD01 KWBC
SOVD01 TFFF
SOVD01 TFFR
SOVD01 TNCC

SOVD02 BIRK
SOVD02 CWOW
SOVD02 EGRR
SOVD02 KWBC

SOVD02 TFFF
SOVD01 TFFR
SOVD02 TNCC
SOVD03 KWBC

SOVD04 KWBC
SOVD05 KWBC
SOVD06 KWBC
SOVD07 KWBC

SOVD08 KWBC
SOVD09 KWBC
SOVD10 RUHB
SOVD10 RUMS

SOVD11 KWBC
SOVD12 KWBC
SOVD13 KWBC
SOVE01 AMMC

SOVE01 EGRR
SOVE01 NTAA
SOVE02 AMMC
SOVE02 EGRR

SOVE03 AMMC
SOVE04 AMMC
SOVE10 RUHB
SOVF01 BIRK

SOVF01 EDZW
SOVF01 EGRR
SOVF01 ESWI
SOVF01 LFPW

SOVF02 BIRK
SOVF02 EGRR
SOVF02 ESWI
SOVF10 RUMS

SOVJ01 EGRR
SOVJ02 EGRR
SOVJ10 RUML
SOVX01 DEMS

SOVX01 RJTD
SOVX02 DEMS
SOVX02 ETRW
SOVX02 RJTD

SOVX10 RUHB
SOVX10 RUMS
SOVX11 RJTD
SOVX12 RJTD

SOWD10 RUMS
SOWE01 AMMC
SOWE02 AMMC

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

2.3 Changes in schedules/technical specifications

VI-iii MADRID radio-facsimile broadcast changes in transmission times.

# Annex IV - Codes

Date: February 1991

B. Manual on Codes

3. National practices

3.3 Changes to codes or procedures

Volume II - Region I - Section E -
NATIONAL CODING PROCEDURES WITH REGARD TO INTERNATIONAL CODE FORMS

FM 12-IX SYNOP AND FM 13-IX SHIP

Add
MOZAMBIQUE.

$5EEEi_E$ This group is reported at 0600 UTC by all stations with evaporation pans. The value of evaporation "EEE" is for the period of 24 hours of the day before the previous day observed at 0700Z of the preceding day.

Replace page II-1-E-4 (see Annex IV, p. 2)

## REGION I

**MALAWI** *(continued)*

| | |
|---|---|
| $OT_gT_gR_cR_t$ | *This group is used in the form* $OT_gT_g//$. *The group* $OT_gT_g//$ *is only reported at 0600 UTC from 1 May to30 September.* |
| $943D_LD_L$ | This group is used during the tropical cyclone season only a tstation *67693 (Chileka).* |

**MALI**

| | |
|---|---|
| $6RRRt_R$ 12.2.5.4. | This group is only reported at 0600 and 1800 UTC in accordance with Regulation |
| $7wwW_1W_2$ | ww is coded 05 only when horizontal visibility is less than 5 km<br>ww is coded 10 only when horizontal visibility is 1 km or more and less than 5 km. |
| $55f_xf_xg_0$ }<br>$(55f_xf_xf_x)$ } | This (these) group(s) is (are) reported only by stations equipped with an anemograph. |
| $9S_pS_ps_ps_p$ | This group is used in the following form: |
| 990twinw1 | Time of commencement and duration of fall of hail having occurred during the period covered by $W_1W_2$ |

$n_w1$ Duration of fall of hail. (Code table 158)
$t_w1$ Time of commencement of fall of hail. (Code table 158)

**MOROCCO**

| | |
|---|---|
| $9S_pS_ps_ps_p$ | *This service uses deciles 50-59 and 60-69 as prescribed in Region VI (Code table 668):* |

$95D_aN_mn_3$ Cloud conditions over mountains and passes.

$96D_aN_vn_4$ Fog, mist or low cloud in valleys or plains, observed from a station at a higher level.

**MOZAMBIQUE**

| | |
|---|---|
| $5EEEi_E$ | This group is reported at 0600 UTC by all stations with evaporation pans. The value of evaporation "EEE" is for the period of 24 hours of the day before the previous day observed at 0700Z of the previous day. |

**NIGER**

| | |
|---|---|
| 4PPPP | This group is reported by stations with elevation higher than *500* m. |
| $6RRRt_R$ 12.2.5.4. | This group is only reported at 0600 and 1800 UTC in accordance with Regulation |
| $55f_xf_xg_0$ }<br>$(55f_xf_xf_x)$ } | This (these) group(s) is (are) reported only by stations equipped with an anemograph. |
| 9SpSpspsp | This group is used in the following form: |

$990t_w1n_w1$ Time of commencement and duration of fall of hail.
$n_w1$ Duration of fall of hail. (Code table 158)
tw1 Time of commencement of fall of hail. (Code table 158)

ORGANISATION MÉTÉOROLOGIQUE MONDIALE

WORLD METEOROLOGICAL ORGANIZATION

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W/OIS

Annexes: 4

GENEVA, 31 March 1991

Subject : Monthly letter on the operation of the World Weather Watch (WWW) and Marine Meteorological Services (MMS) March 1991

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

Dear Sir/Madam,

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

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

Annex I - Global Observing System

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

1. Publication No. 9, Volume A - Stations

1.3 Changes to existing stations

2. WMO Catalogue of Radiosondes in use by Members

To: Permanent Representatives (or Directors of Meteorological or Hydro-meteorological Services) of Members of WMO (PR-4611)
Directors of Meteorological Services of non-Member countries (MC-2444)
Presidents and Vice-Presidents of Regional Associations (P.RA-1268)
Presidents and Vice-Presidents of Technical Commissions (P.TC-1386)
Chairmen of CBS Working Groups
Secretary-General of ICAO
Director-General of IATA
Secretary of IOC
Director-General of ASECNA
Director of ECMWF

3. Mobile sea stations

3.1 Ocean Weather Ships

4. Automatic marine stations

5. ARGOS

5.1 ARGOS monthly status report

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

D. Information on operational status of space sub-system

Annex II - Global Data-processing System

B. Information on operational status of GDPS including changes to WMO Publication No. 9 - Volume B

5. List of radiosonde stations for verification of NWP

Annex III - Global Telecommunication System

A. GTS regulatory or guidance material

3. Amendments to the Manual on the Global Telecommunication System

C. Information on the operation of the GTS

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

2.3 Changes in schedules/technical specifications

6. Coastal Radio Stations (Publication No. 9, Volume D, Part B)

6.3 Changes to existing stations

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

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 6, "Feed-back from Members to the Secretariat on any changes in the observing network" has been added to Annex I - Global Observing System.

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

Yours faithfully,

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

# Annex I - Global Observing System

Date: March 1991

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

### 1. Publication No. 9, Volume A - Stations

#### 1.3 Changes to existing stations

80035 RIOHACHA/ ALMIRANTE PADILLA . . . . X X X X H11-23 . . RW . /

### 2. WMO Catalogue of Radiosondes in use by Members

Notification from Hungary that from 0000 UTC on 1 March 1991 a new upper-air sounding system is operated at station 12843 BUDAPEST/LORINC. METEORIT-2 ground equipment is replaced by VAISALA DIGICORA MW 11, and MARZ-2-2 (1780 MHz). Radiosondes are replaced by VAISALA RS 80-15N (403 MHz)

### 3. Mobile sea stations

#### 3.1 Ocean Weather Ships

Notification from USSR that from 27 March to 24 June 1991 it is planned for the Soviet research vessel Ernst Krenkel (operated by the State Oceanographic Institute in Odessa of the USSR State Committee for Hydrometeorology) to participate in the international expedition for the EUROTRACK and EUREKA projects in the Mediterranean Sea. The work programme includes making upper-air observations from on board the ship during the periods 5-14 April and 1-15 June 1991, up to an average height of 30 km at 00, 06, 12 and 18 UTC.

These observations will be made within the area limited by the following points:

41°30'N 05°00'E:
42°30'N 05°00'E;
41°30'N 06°00'E;
42°30'N 06°00'E.

The results obtained from these observations will be transmitted for international exchange via the World Data Centre B.

### 4. Automatic marine stations

Canada

Data from moored and drifting buoys are collected via geostationery 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 Terminal in Edmonton and distributed on the GTS using the FM 14-VIII DRIBU code.

Legend

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

Moored Buoys (North-east Pacific Ocean):

| WMO buoy identifier | Position 22 February 1991 | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|
| 46004 | 50°56'N 135°52'W | X X X X X X X X |
| 46036 | 48°18'N 133°51'W | X X X X X X X X |
| 46181 | 53°49'N 128°51'W | X X X X X X X X |
| 46182 | 49°29'N 123°18'W | X X X X X X X X |
| 46184 | 53°56'N 138°48'W | X X X X X X X X |
| 46185 | 52°25'N 129°48'W | X X X X X X X X |
| 46204 | 51°14'N 128°27'W | X X X X X X X X |
| 46205 | 54°10'N 134°20'W | X X X X X X X X |
| 46206 | 48°50'N 126°00'W | X X X X X X X X |
| 46207 | 50°31'N 129°33'W | X X X X X X X X |
| 46208 | 52°18'N 132°25'W | X X X X X X X X |

Moored Buoys (North-west Atlantic Ocean):

| WMO buoy identifier | Argos identifier | Position 25 February 1991 | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|
| 44137 | 05579 | 41°14'N 061°14'W | X X X X X X X X |
| 44138 | 03434 | 44°13'N 053°36'W | X X X X X X X X |
| 44139 | 03448 | 44°19'N 057°21'W | X X X X X X X X |
| 44140 | 05576 | 42°44'N 050°36'W | X X X X X X X X |
| 44142 | 05578 | 42°30'N 064°12'W | X X X X X X X X |

Moored Buoys (Great Lakes):

| WMO buoy identifier | Position 25 February 1991 | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|
| 45132 | 42°06'N 083°05'W | X X X X X X X X |
| 45135 | 44°42'N 075°30'W | X X X X X X X X |
| 45137 | 45°20'N 080°02'W | X X X X X X X X |

Drifting Buoys (North-east Pacific Ocean):

| WMO buoy Identifier | Argos Identifier | Position 25 February1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 46632 | 12511 | 44°51'N | 143°03'W | . X X X X . . . |
| 46681 | 07135 | 49°47'N | 159°13'W | . X X X X . . . |
| 46684 | 07137 | 44°18'N | 165°36'W | . X X X X . . . |
| 46687 | 07138 | 40°12'N | 135°31'W | . X X X X . . . |
| 46693 | 07140 | 39°51'N | 145°05'W | . X X X X . . . |
| 46694 | 07141 | 28°13'N | 150°06'W | . X X X X . . . |
| 46695 | 07142 | 28°23'N | 150°32'W | . X X X X . . . |
| 46703 | 06269 | 53°14'N | 138°05'W | . X X X X . . . |
| 46704 | 07128 | 47°46'N | 146°27'W | . X X X X . . . |
| 46705 | 07129 | 49°30'N | 142°41'W | . X X X X . . . |
| 46706 | 07130 | 41°59'N | 139°41'W | . X X X X . . . |
| 46707 | 07131 | 28°31'N | 140°32'W | . X X X X . . . |

Drifting Buoys (Arctic Icepack)):

| WMO buoy Identifier | Argos Identifier | Position 25 February1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 48523 | 01107 | 74°39'N | 135°58'W | . X X X . . . . |

United States of America

List of U.S.A. Ocean Data Acquisition System (ODAS) included in the March 1991 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 DRIBU code.

Legend

| Column | Observed or technical parameters |
|---|---|
| 1 | Wind direction and speed |
| 2 | Air temperature |
| 3 | Pressure |
| 4 | Pressure tendency |
| 5 | Sea-surface temperature |
| 6 | Wave period and height |
| 7 | Wave spectra |
| 8 | Drogued |

Moored Buoys:

| WMO buoy Identifier | Position 14-21 March 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 |
|---|---|---|---|
| 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 |
| 41006** | 29°18'N | 77°24'W | * * * * * * * |

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

* Sensor/system failure

Moored Buoys (continued):

| WMO buoy Identifier | Position 14-21 March 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 41008 | 30°42'N | 81°06'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 |
| 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 |
| 44001 | 38°24'N | 73°36'W | x | x | x | x | x | x | x |
| 44004** | 38°30'N | 70°36'W | x | x | x | x | x | x | x |
| 44005** | 42°42'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 |
| 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 | x |
| 44015 | 37°30'N | 73°24'W | x | x | x | x | x | x | x |
| 44023 | 37°30'N | 74°24'W | x | x | x | x | x | x | x |
| 44024 | 37°42'N | 74°42'W | - | - | - | - | - | - | - |
| 45001** | 48°00'N | 87°42'W | x | x | x | x | x | x | x |
| 45002** | 45°18'N | 86°24'W | * | 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 |
| 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°24'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°48'N | 137°42'W | * | * | * | * | * | * | * |
| 46010** | 46°12'N | 124°12'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 | x | x | x | x | x | x | x |
| 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 |

* Sensor/system failure.

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

Moored Buoys (continued):

| WMO buoy Identifier | Position 14-21 March 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 46027** | 41°48'N | 124°24'W | X | X | X | X | X | X | X |
| 46028 | 35°48'N | 121°54'W | • | * | • | * | * | * | * |
| 46030 | 40°24'N | 124°30'W | X | X | X | * | X | X | X |
| 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 | X |
| 46045 | 33°48'N | 118°24'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°12'N | 160°48'W | X | X | X | X | X | X | X |
| 51004** | 17°30'N | 152°30'W | X | X | X | X | X | X | X |

Drifting Buoys:

| WMO buoy Identifier | Argos Identifier | Position 20-21 March 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14803 | 08844 | 27°S | 041°E | . | X | X | . | X | . | . | . |
| 14804 | 08845 | 27°S | 048°E | . | X | X | . | X | . | . | . |
| 16807 | 05133 | 52°S | 016°W | . | X | X | . | X | . | . | . |
| 16808 | 05127 | 48°S | 014°W | . | . | . | . | . | . | . | . |
| 17803 | 05571 | 41°S | 092°E | X | * | X | . | X | . | . | X |
| 17804 | 12300 | 39°S | 082°E | . | * | X | . | X | . | . | . |
| 17805 | 12304 | 35°S | 076°E | . | * | X | . | X | . | . | . |
| 17806 | 12306 | 38°S | 002°W | . | X | X | . | X | . | . | . |
| 17809 | 05125 | 43°S | 001°W | . | X | X | . | X | . | . | . |
| 17810 | 05126 | 40°S | 001°E | . | X | X | . | X | . | . | . |
| 17825 | 05129 | 45°S | 009°W | . | X | X | . | X | . | . | . |
| 32814 | 07491 | 25°S | 071°W | . | X | X | . | X | . | . | . |
| 33301 | 12310 | 56°S | 028°W | . | . | . | . | . | . | . | . |
| 33509 | 12307 | 44°S | 043°W | . | X | X | . | X | . | . | . |
| 33510 | 12308 | 48°S | 000°W | . | X | X | . | X | . | . | . |
| 33826 | 12296 | 60°S | 028°E | . | X | X | . | X | . | . | . |
| 33827 | 12297 | 49°S | 054°E | . | X | X | . | X | . | . | . |
| 33828 | 12298 | 45°S | 047°E | . | X | X | . | X | . | . | . |
| 33830 | 12305 | 43°S | 025°E | . | X | X | . | X | . | . | . |
| 54829 | 06762 | 41°S | 157°W | . | * | X | . | X | . | . | . |
| 54830 | 06763 | 44°S | 116°W | . | * | X | . | X | . | . | . |
| 54831 | 06764 | 46°S | 114°W | . | X | X | . | X | . | . | . |
| 54832 | 06585 | 42°S | 166°W | X | X | X | . | X | . | . | X |
| 54833 | 06586 | 45°S | 145°W | X | X | X | . | X | . | . | X |
| 54834 | 06583 | 37°S | 153°W | X | X | X | . | X | . | . | X |
| 54835 | 06731 | 39°S | 156°W | . | X | X | . | X | . | . | . |
| 54837 | 05135 | 30°S | 159°W | . | X | X | . | X | . | . | . |
| 55802 | 08843 | 27°S | 048°E | . | X | X | . | X | . | . | . |

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

• Sensor/system failure

Drifting Buoys (continued):

| WMO buoy Identifier | Argos Identifier | Position 20-21 March 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 55803 | 05136 | 61°S | 176°W | . X X . X . . . |
| 56827 | 09221 | 58°S | 150°E | . * * . * . . . |
| 56832 | 09219 | 13°S | 107°E | . X X . X . . . |

* Sensor/system failure

## 5. ARGOS service

### 5.1 ARGOS monthly status report

As at 5 March 1991 the Argos service was handling reports from 628 drifting buoys, 124 moored buoys, 3 balloons, 37 ships, 157 animal trackings, 412 fixed stations, 125 boats and 40 miscellaneous platforms. DRIBU reports from 53 drifting buoys and BATHY reports from 26 selected ships were transmitted to the RTH Paris and DRIBU reports from 211 drifting 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 | 55511 | 00418 |
| | 56001 | 04873 |
| | 56501 | 02934 |
| | 56502 | 02936 |
| | 56503 | 08035 |
| | 56504 | 08036 |
| | 56505 | 08037 |
| | 56546 | 02951 |
| | 56547 | 04870 |
| | 56548 | 04871 |
| | 56549 | 04872 |
| | 9VBZ* | 09195 |
| | 9VUU* | 09190 |
| | 9VWM* | 09187 |
| | GYSA* | 09189 |
| | GYSE* | 09199 |
| | S6FK* | 09193 |
| | VMAP* | 09194 |
| Canada | 21551 | 01314 |
| | 21552 | 01315 |
| | 21553 | 01316 |
| | 44631 | 02376 |
| | 44632 | 05437 |
| | 44633 | 04761 |
| | 44634 | 02377 |
| | 44635 | 08666 |

* PTT's transmitting at irregular intervals

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Canada (continued) | 46644 | 01198 |
| | 46645 | 01199 |
| | 46646 | 01310 |
| | 46649 | 01313 |
| | 46650 | 01424 |
| | 46655 | 01429 |
| | 46656 | 08090 |
| | 46657 | 08093 |
| | 47531 | 05218 |
| | 47533 | 05215 |
| | 47535 | 05216 |
| | 47542 | 05217 |
| | 47559 | 04004 |
| France | 13531 | 05832 |
| | 44610 | 10102 |
| | 62503 | 05790 |
| | 62513 | 05829 |
| | 62516 | 05833 |
| | 62518 | 10104 |
| | 64516 | 05796 |
| | 3EBD* | 04725 |
| | A3BZ* | 04709 |
| | C6HL* | 04705 |
| | DIDA* | 08742 |
| | ELEH* | 08746 |
| | FH62* | 04727 |
| | FNCZ* | 08744 |
| | FNGS* | 04707 |
| | FNJT* | 04722 |
| | FNOM* | 04701 |
| | FNAP* | 04706 |
| | FNZO* | 04717 |
| | FNZQ* | 04703 |
| | FPYO* | 04729 |
| | FWPQ* | 08747 |
| | GQEK* | 04708 |
| | GTIA* | 04712 |
| | HPEW* | 04720 |
| | ZDBE* | 04718 |
| Germany | 71524 | 03315 |
| | 71540 | 08068 |
| | 71543 | 08055 |
| | 71544 | 08062 |
| | 71545 | 09353 |
| | 71546 | 09354 |
| | 71547 | 09355 |
| | 71548 | 09360 |

PTT's transmitting at irregular intervals.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Iceland | 64606 | 03711 |
| Japan | 52060 | 08718 |
| | 52064 | 08724 |
| New Zealand | 55579 | 06435 |
| | 55582 | 07175 |
| | 55583 | 07179 |
| | 55584 | 07178 |
| | 55585 | 07177 |
| Norway | 17001 | 01591 |
| | 17003 | 01758 |
| | 63002 | 09407 |
| | 63512 | 01792 |
| | 65591 | 06666 |
| | 71001 | 01757 |
| | 74001 | 09405 |
| South Africa** | 17522 | 09095 |
| | 17524 | 09099 |
| | 17527 | 09087 |
| | 17528 | 08260 |
| | 17529 | 09088 |
| | 17530 | 09093 |
| | 17533 | 09091 |
| | 33021 | 09085 |
| United Kingdom | 62608 | 03919 |
| | 62803 | 06299 |
| | 62804 | 06305 |
| | 62805 | 06285 |
| United States of America | 12847 | 11191 |
| | 14803 | 08844 |
| | 14804 | 08845 |
| | 17803+ | 05571 |

\+ PTT's which were removed from the 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.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 17804 | 12300 |
| | 17805 | 12304 |
| | 17806 | 12306 |
| | 31502 | 09844 |
| | 32513 | 11910 |
| | 32514 | 10836 |
| | 32515 | 11898 |
| | 32516 | 11911 |
| | 32517 | 15093 |
| | 32518 | 15091 |
| | 32519+ | 11905 |
| | 32522 | 10808 |
| | 32523 | 10809 |
| | 32525 | 11192 |
| | 32528 | 10820 |
| | 32529 | 11194 |
| | 32531 | 10812 |
| | 32532 | 11897 |
| | 32534+ | 11196 |
| | 32535 | 11907 |
| | 32537 | 10839 |
| | 32538 | 11172 |
| | 32540 | 11904 |
| | 32541 | 11656 |
| | 32543 | 11015 |
| | 32544 | 11908 |
| | 32545 | 10849 |
| | 32546 | 11160 |
| | 32549 | 11163 |
| | 32550 | 11894 |
| | 32552 | 11195 |
| | 32553 | 10841 |
| | 32554 | 10840 |
| | 32558 | 09276 |
| | 32560 | 11572 |
| | 32814 | 07491 |
| | 33509 | 12307 |
| | 33510 | 12308 |
| | 33826 | 12296 |
| | 33827 | 12297 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 33828 | 12298 |
| | 33830 | 12305 |
| | 41012 | 01602 |
| | 41014 | 01606 |
| | 41503+ | 12666 |
| | 41504+ | 12668 |
| | 41510 | 09845 |
| | 41511 | 09846 |
| | 41512 | 09857 |
| | 41513 | 09853 |
| | 43502 | 11168 |
| | 43503 | 11874 |
| | 43504 | 11198 |
| | 43508 | 11171 |
| | 43510 | 11628 |
| | 43801 | 06898 |
| | 44016 | 01605 |
| | 44017 | 01604 |
| | 44018 | 01603 |
| | 44020 | 01609 |
| | 44021 | 01608 |
| | 44022 | 01607 |
| | 44504 | 04561 |
| | 44505 | 09878 |
| | 44506+ | 04542 |
| | 44510 | 04530 |
| | 44518 | 09841 |
| | 44520 | 09856 |
| | 44521 | 12753 |
| | 44528 | 12768 |
| | 44530 | 12770 |
| | 44532 | 12743 |
| | 44534 | 12771 |
| | 44538 | 12762 |
| | 44541 | 12763 |
| | 44542 | 12764 |
| | 44543 | 12765 |
| | 44544 | 12766 |
| | 44551 | 12453 |
| | 46510 | 12672 |
| | 46511 | 12690 |
| | 46512 | 12691 |
| | 46514 | 12693 |
| | 47601 | 12785 |
| | 48519 | 12783 |
| | 51510 | 11671 |
| | 51511 | 06883 |
| | 51512 | 15089 |

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

| Operating country | WMO Identifier/call sign | Argos Identifier |
|---|---|---|
| United States of America (continued) | 51513 | 11663 |
| | 51514 | 11675 |
| | 51515 | 11678 |
| | 51516 | 11632 |
| | 51517 | 11676 |
| | 51518 | 15077 |
| | 51519 | 11646 |
| | 51520 | 11653 |
| | 51801 | 11197 |
| | 51802 | 11650 |
| | 51803 | 11912 |
| | 51804 | 15092 |
| | 51806 | 09279 |
| | 51807 | 15094 |
| | 51808 | 15085 |
| | 51809 | 11199 |
| | 51810 | 15087 |
| | 51811 | 11644 |
| | 51813 | 11569 |
| | 51814 | 11682 |
| | 51816 | 11620 |
| | 51817 | 11655 |
| | 51818 | 11630 |
| | 51819 | 11645 |
| | 51820 | 11687 |
| | 51821 | 11690 |
| | 51822 | 11870 |
| | 51823 | 15095 |
| | 51824 | 11685 |
| | 51825 | 11686 |
| | 51826 | 11871 |
| | 51827 | 11688 |
| | 51828 | 11695 |
| | 51829 | 11202 |
| | 51830 | 15088 |
| | 51831 | 11689 |
| | 51832 | 11691 |
| | 51833 | 11872 |
| | 51834 | 11170 |
| | 51835 | 11638 |
| | 51836 | 09270 |
| | 51839 | 11700 |
| | 51840 | 15090 |
| | 51841 | 15098 |
| | 51842 | 11702 |
| | 51843 | 11703 |
| | 51844 | 09275 |
| | 51845 | 11548 |

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51846 | 11692 |
| | 51847 | 11706 |
| | 51849 | 15097 |
| | 51850 | 11662 |
| | 51853 | 11694 |
| | 51855 | 11705 |
| | 51856 | 15082 |
| | 51857 | 11667 |
| | 51858 | 11668 |
| | 51861 | 15099 |
| | 51862 | 11670 |
| | 51863 | 11564 |
| | 51865 | 11623 |
| | 51866 | 11664 |
| | 51867 | 11666 |
| | 51868 | 11669 |
| | 51869 | 11674 |
| | 51870 | 11679 |
| | 51871 | 11693 |
| | 51872 | 11696 |
| | 51873 | 11699 |
| | 51874 | 11701 |
| | 51875 | 11704 |
| | 51876 | 11683 |
| | 51877 | 15073 |
| | 51878 | 15072 |
| | 51879 | 15074 |
| | 51880 | 15078 |
| | 51881 | 15080 |
| | 51882 | 15081 |
| | 51883 | 15083 |
| | 51884 | 15084 |
| | 51885 | 15086 |
| | 52813 | 10835 |
| | 52827 | 10823 |
| | 52853 | 11624 |
| | 52854 | 11626 |
| | 52866 | 11887 |
| | 52867 | 11893 |
| | 52868 | 11876 |
| | 52872 | 11890 |
| | 52875 | 11896 |
| | 52877 | 11883 |
| | 52878 | 11885 |
| | 53809 | 11886 |
| | 54829 | 06762 |
| | 54830 | 06763 |
| | 54831 | 06764 |

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 54832+ | 06585 |
| | 54833+ | 06586 |
| | 54834+ | 06583 |
| | 54835 | 06731 |
| | 55802 | 08843 |
| | 55803 | 05136 |
| | 56827 | 09221 |
| | 56831 | 09217 |
| | 56832 | 09219 |
| | 62671 | 09847 |
| | 62672 | 09859 |
| | 64577+ | 04126 |
| | 64578+ | 04834 |
| | 64580+ | 12444 |
| | 65505+ | 04632 |

ATLAS buoys (transmitting again on GTS since 14 February 1991)

| WMO identifier/call sign | Argos identifier |
|---|---|
| 32315 | 06379 |
| 32316 | 06370 |
| 32317 | 06519 |
| 32318 | 06371 |
| 51006 | 06521 |
| 51007 | 06475 |
| 51008 | 06518 |
| 51009 | 06461 |
| 51010 | 06369 |
| 52001 | 06799 |
| 52003 | 12522 |
| 52004 | 12523 |
| 52006 | 12525 |
| 52301 | 06381 |

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

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

In view of the difficulties experienced at present in identifying non-implemented observing stations or implemented stations which are closed or suspended for a certain period, or stations making observations but not reaching their NMCs, the ninth session of the CBS Advisory Working Group recommended that a special table be added to the WWW monthly operational letter to serve as feed-back from Members to the Secretariat on any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations.

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

D. Information on operational status of space sub-system

GOES Status Report - (Updated 01 March 1991)

GOES-7:

(Prime) operational. Position: 107.7°W, inclination: .05°.

Currently supports GOES-East operations, simultaneous East WEFAX broadcast, SEM, VAS operations and East DCPR operations. East WEFAX broadcast schedule is contained in the 10:55 UTC WEFAX transmission. VAS operations are conducted near-continously, with data retransmitted in mode AAA format. Multi-Spectral Images start at 01 and 31 minutes past each hour and soundings are conducted between MSI's. Spring eclipse 26 February 1991-12 April 1991. No WEFAX broadcast during eclipse.

Polar Orbiting Status Report - (Updated 01 March 1991)

NOAA-D: Is scheduled for launch 14 May 1991, at approximately 15:52 UTC and will cross the equator in a descending mode at 19:30 (Local Time)

NOAA-10: (Operational) launched 17 September 1986, morning descending, 1564 days operational, AVHRR (HRPT, APT), DCS, MSU, SAR, SEM. ERBE scanner failed 22 May 1989. SAR processor UHF RCVR failed 08 September 1988, AVHRR scan motor has high jitter. DTR-1B designated safestate DTR, not used for daily OPS.

NOAA-11: (Operational) launched 24 September 1988, afternoon ascending, 843 days operational, AVHRR (HRPT, APT), SSU, DCS, SBUV, SAR. ROLL(Y) GYRO failed 19 September 1989. DTR-5A and 5B have malfunctioned and are not being used. DTR-1B designated safestate DTR is used for daily OPS. NOAA-11 is still experiencing difficulty in the Inertial Measurement Unit (IMU). When an IMU switch periodically occurs, new GYRO software is activated. IMU switching can cause yaw errors up to 1 degree that can remain for 4 revolutions.

| | HRPT | APT | BCN |
|---|---|---|---|
| NOAA-9 | 1707(HSB) | 137.62(VTX2) | 137.77(BTX2) |
| NOAA-10 | 1698(LSB) | 137.50(VTX1) | 136.77(BTX1) |
| NOAA-11 | 1707(HSB) | 137.62(VTX2) | 137.77(BTX2) |

FY-1B: Is experiencing an attitude control problem. The extent of the problem was not detailed at this time. SMA is working to correct the problem. If and when the problem is corrected, broadcast of HRPT and APT will resume. The HRPT Frequency was changed to 1704.5 to avoid interference with METEOSAT 'PDUS' stations. This change was made on 12 February 1991.

Summary of USSR Meteorological satellite activity

Meteor 2-20 is currently the only active USSR Meteorological satellite. It is available in the early afternoon with south to north passes available. Latest orbital prediction available on Tuesdays and Fridays in WMO FANAS messages transmitted on GTS.

METEOSAT - (Latest Operational News 01/9)

METEOSAT-5 was successfully launched at 23:36 UTC on 02 March 1991.

Apogee boost motor firing took place at 13:30 UTC on 04 March 1991.

Separation was nominal and Meteosat was placed into a good geostationary orbit, at 30 degrees west, drifting east at 2.8 degrees per day, and with all systems which have so far been tested in nominal condition. Commissioning has now started. Latest news (06 March 08:00 UTC) is that everything is going well. Completion of commissioning with respect to communication missions is expected by 18 March.

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

(explanatory notes overleaf)

Global Exchange/Regional Exchange (delete as appropriate) Country: _____

| Station index number | Bulletin identification TTAAii CCCC | Implementation of observing programme | | | | | | | | Alternate observing station | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 00 | 03 | 06 | 09 | 12 | 15 | 18 | 21 | | |
| 1. SYNOP | | | | | | | | | | | |
| 2. TEMP | | | | | | | | | | | |
| 3. PILOT | | | | | | | | | | | |

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

1. Separate tables should be prepared for global exchange and regional exchange respectively. These tables should contain information concerning any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations given in Attachment I-4 of the Manual on the GTS, Volume I for global exchange and, as applicable, Attachments AF-I, AI-1, SA-1, NA-1, PS-1 and EU-1 of the Manual on the GTS, Volume II for regional exchange.

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

   (a) In the column "Station index number", the index number (IIiii) of each station should be entered in case of any changes in the observing programmes of the stations;

   (b) In the column "Bulletin identification", the TTAAii CCCC of the abbreviated heading of the meteorological bulletins which contains reports from the station should be inserted;

   (c) In the column "Implementation of observing programme", "X" for implementation and "-" for non-implementation should be inserted as appropriate. In order to easily identify changes in the programme, this should be marked in red;

   (d) In the column "Alternate observing station", the index number (IIii) of an alternate observing station should be inserted in case another station is available with a view to filling gaps which are caused by suspension of observing programmes of the original station;

   (e) The required information concerning the observing programme of the alternate station should be inserted in the next horizontal line of the original station;

   (f) In the column "Remarks", reasons of temporary suspension of observing programmes and an expected date of resumption of the programmes should be given as far as possible. Non-standard collection and/or distribution times should also be included.

3. These tables should be sent to the Secretariat before the 1st of the month for inclusion of the changes in the monthly operational letter, as appropriate.

# Annex II - Global Data-processing System

Date: March 1991

B. Information on the operational status of GDPS including changes to WMO Publication No. 9, Volume B

5. List of radiosonde stations for verification of NWP

ASIA (25°N-65°N, 60°E-145°E)

| | | |
|---|---|---|
| 23552 | 47138 | 54102 |
| 23884 | 47158 | 54135 |
| 23921 | 47185 | 54161 |
| 23933 | 47401 | 54218 |
| 23955 | 47412 | 54292 |
| 24507 | 47580 | 54342 |
| 24688 | 47582 | 54374 |
| 24817 | 47590 | 54497 |
| 24908 | 47600 | 54511 |
| 24959 | 47646 | 54662 |
| 28275 | 47678 | 54823 |
| 28440 | 47681 | 54857 |
| 28698 | 47744 | 55299 |
| 29231 | 47778 | 56029 |
| 29282 | 47807 | 56080 |
| 29574 | 47827 | 56137 |
| 29612 | 47909 | 56146 |
| 29634 | 47936 | 56294 |
| 29698 | 47945 | 56571 |
| 30230 | 47971 | 56691 |
| 30554 | 50527 | 56739 |
| 30692 | 50557 | 56778 |
| 30715 | 50774 | 57036 |
| 30758 | 50953 | 57083 |
| 30935 | 51076 | 57127 |
| 30965 | 51463 | 57178 |
| 31004 | 51644 | 57447 |
| 31300 | 51709 | 57461 |
| 31329 | 51777 | 57494 |
| 31735 | 51828 | 57516 |
| 31873 | 51848 | 57679 |
| 31909 | 52203 | 57749 |
| 31960 | 52267 | 57816 |
| 32061 | 52323 | 57957 |
| 32150 | 52418 | 57972 |
| 35394 | 52533 | 57993 |
| 35746 | 52681 | 58027 |
| 35796 | 52818 | 58150 |
| 36177 | 52836 | 58203 |
| 36870 | 52866 | 58238 |

## ASIA (25°N-65°N, 60°E-145°E)

38062
38341
38457
38613

38687
38836
44212
47041

52889
53068
53463
53513

53614
53772
53845
53915

58367
58424
58457
58606

58633
58666
58725
58847
58968

## NORTH AMERICA (25°N-60°N, 145°W-50°W)

70361
70398
71109
71115

71119
71600
71722
71801

71811
71815
71816
71823

71836
71848
71867
71896

71906
71907
71913
71934

71945
72201
72203
72208

72210
72213
72220
72229

72233
72235
72240
72247

72250
72251
72260
72261

72265
72270
72274
72293

72304
72311
72317
72327

72340
72349
72363
72365

72374
72387
72393
72402

72403
72407
72425
72429

72435
72451
72456
72469

72476
72486
72493
72518

72520
72528
72532
72553

72562
72572
72576
72583

72597
72606
72637
72645

72654
72655
72662
72681

72694
72712
72734
72747

72764
72768
72775
72785

72797
74494
74794
76225

76394
78016
78073

## AUSTRALIA/NEW ZEALAND (55°S-10°S, 90°E-180°E)

| | | |
|---|---|---|
| 91557 | 94380 | 94711 |
| 91592 | 94403 | 94750 |
| 91680 | 94461 | 94776 |
| 93012 | 94510 | 94802 |
| 93417 | 94527 | 94821 |
| 93844 | 94578 | 94865 |
| 93944 | 94610 | 94910 |
| 94120 | 94637 | 94975 |
| 94150 | 94638 | 94995 |
| 94203 | 94646 | 94996 |
| 94294 | 94659 | 94998 |
| 94299 | 94672 | 96996 |
| 94302 | | |
| 94312 | | |
| 94326 | | |
| 94332 | | |

## EUROPE (25°N-70°N, 10°W-28°E)

| | | |
|---|---|---|
| 01152 | 07180 | 12425 |
| 01241 | 07481 | 12843 |
| 01384 | 07510 | 12982 |
| 01415 | 07645 | 13130 |
| 02185 | 07761 | 13275 |
| 02365 | 08001 | 15120 |
| 02527 | 08023 | 15614 |
| 02591 | 08221 | 16044 |
| 02836 | 08301 | 16080 |
| 02935 | 08430 | 16144 |
| 02963 | 08495 | 16245 |
| 03005 | 08579 | 16320 |
| 03026 | 09184 | 16429 |
| 03170 | 09393 | 16560 |
| 03322 | 09486 | 16754 |
| 03496 | 09548 | 26038 |
| 03774 | 10035 | 26258 |
| 03808 | 10338 | 26629 |
| 03920 | 10384 | 26850 |
| 03953 | 10410 | 33008 |
| 06011 | 10739 | 33631 |
| 06181 | 10868 | 60390 |
| 06260 | 11035 | 60715 |
| 06447 | 11520 | 62010 |
| 06476 | 11952 | |
| 06610 | 12120 | |
| 07110 | 12330 | |
| 07145 | 12374 | |

## TROPICS (20°S-20°N)

| | | |
|---|---|---|
| 08594 | 76679 | 91610 |
| 41344 | 78526 | 91643 |
| 48648 | 78641 | 91680 |
| 48698 | 78762 | 91765 |
| 59981 | 78806 | 91801 |
| 61052 | 78970 | 91843 |
| 61223 | 78988 | 91925 |
| 61291 | 80222 | 91938 |
| 61641 | 80241 | 91941 |
| 61901 | 82193 | 91943 |
| 61902 | 82332 | 91944 |
| 61967 | 82400 | 94035 |
| 61976 | 84628 | 94120 |
| 63450 | 85201 | 94203 |
| 63741 | 91217 | 94299 |
| 63894 | 91245 | 96163 |
| 63985 | 91285 | 96315 |
| 64500 | 91334 | 96935 |
| 64910 | 91348 | 96996 |
| 65578 | 91366 | 97560 |
| 67083 | 91376 | 98327 |
| 67237 | 91408 | |
| 67341 | 91492 | |
| 67964 | 91557 | |

# Annex III - Global Telecommunication System

Date: March 1991

## A. GTS regulatory or guidance material

### 3. Amendments to the Manual on the Global Telecommunication System

Recommendations adopted by CBS Ext. (90)

At its extraordinary session (London, 24 September - 5 October 1990), CBS adopted three recommendations for amendment to the Manual on the GTS. Volume I, Parts I, II and III respectively. These recommendations will be submitted to EC.

The recommendation relating to Part I, with effect from 1 September 1991, includes a revision of paragraphs 1 to 3. It also includes provisions for the global exchange of Parts A, B, C and D of TEMP, PILOT, TEMP SHIP, PILOT SHIP, TEMP MOBIL and PILOT MOBIL, as well as new procedures for the annual global monitoring (see also WMO letter W/SY/T.9 (PR. 4569) dated 15 January 1991).

The recommendations relating to Part II and III, with effect from 1 November 1991, include provisions to delete the groups CLLLL and CFFFF from the starting line of the meteorological messages. They also include amendments to the allocation of abbreviated headings, in particular to the tables A, B1, B2, C3, C5 and D, and provisions to add new tables relating to messages in bit-oriented code forms. The other amendments are related to the introduction of virtual calls (VC) services in the network layer and of a limit of length of 15000 octets for messages in bit-oriented code forms, to the detection and cancellation of duplicated messages, to the use of groups GGgg and ii of the abbreviated heading, and to the use of CCITT group 4 standard for coded digital fax.

The final report of CBS - Ext (90) will soon be available from the WMO Secretariat.

## C. Information on the operation of the GTS

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

#### 2.3 Changes in schedules/technical specifications

VI-iii Notification from RTH Offenbach that: OFFENBACH/MAIN-MAINFLINGEN, Programme 1 (DCF54) Radio-facsimile broadcast effective 11 March 1991 changes as follows:

Charts No. 8 at 0340 UTC and No. 54 at 1637 UTC, column 8:
- Insert after 'vertical motion': '(GM)'

Charts No. 9 at 0349 UTC, No. 15 at 0517 UTC and No. 57 at 1717 UTC, column 8:
- Replace: 'BKF' by 'GM'

Chart No. 12 at 0440 UTC, column 8:
- Insert after H+24, 'H+36'
- Change 950 hPa to '1000 hPa'
- Add after 700 hPa 'Resp OMEGA 700 hPa'
- Add after 850 hPa '(GM)'

Chart No. 24 at 0741 UTC, column 8 read as follows:
(H+12, H+36, H+60) (EM), H+84 (GM)
500 hPa H+T, Surface P,
850 hPa T, 700 hPa F

Chart No. 25 at 0801 UTC, column 8 read in last line:
- (H+24, H+48, H+72) (EM)

Charts No. 31 at 0933 UTC and No. 72 at 2241 UTC, column 8:
- Replace: 'BKN' by 'EM'

Chart No. 36 at 1050 UTC, column 8:
- Insert '(GM)' after 300 hPa

Chart No. 55 at 1646 UTC, column 8:
- Insert after H+24, 'H+36'
- Change 950 hPa to '1000 hPa'
- Add after 700 hPa 'Resp. OMEGA 700 hPa'
- Add after 850 hPa '(GM)'

Charts No. 58 at 1728 UTC, No. 59 at 1748 UTC and No. 64 at 1901 UTC, in column 8:
- Insert after hPa '(EM)'

Chart No. 66 at 1941 UTC, column 8 read as follows:
(H+24, H+48, H+72) (EM), H+96 (GM)
500 hPa H+T, Surface P, 850 hPa T,
700 hPa F

Under 'Note'
- Change the following:

1) In case of non-receipt of METEOSAT-IMAGES for the scheduled time, they will be replaced by other images as close to that time as possible.

5) Hatching by crosses: -2 to -12 hPa per hour
Hatching by slashes: less than -12 hPa per hour

12) Change (Chart No. 35) to (Chart No. 31)

- Delete the abbreviations 'BKF' and 'BKN' with all instructions

## 6 Coastal Radio Stations (Publication no. 9, Volume D, Part B)

### 6.3 Changes to existing stations

Notification from Australia that:

1) - The INMARSAT CES at Perth providing communication through the Indian Ocean satellite has been commissioned.

- The facilities of the two CESs at Perth will be fully implemented in April 1991.

2) Australia began transmission of high seas forecasts and warnings by INMARSAT enhanced group calling over the Pacific Ocean satellite on 18 February 1991. All high seas areas are addressed to NAVAREA X, warnings are addressed to the circular areas covering at least 180 nautical miles around the warning area. Broadcasts of high seas forecasts and warnings for the western area via the Indian Ocean satellite are expected to start in April 1991.

3) From 1 August 1991 there will be a large reduction in the number of coast radio stations providing meteorological broadcasts in Australia.

4) Ocean forecasts will not be issued after 1 August 1991.

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

Date: March 1991

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

AII-VI Notification from RTH Offenbach that: OFFENBACH (MAIN)-HAMBURG/PINNEBERG (DDH3/DDK3/DDK6) Radio-facsimile broadcast for shipping effective 11 March 1991 changes as follows:

Chart 97901 at 0600 UTC and 97903 at 1758 UTC, in column 8:
- Replace: 'BKF' by 'GM'

Charts 97902 at 0933 UTC and 97904 at 2241 UTC, in column 8:
- Replace: 'BKN' by 'EM'

Chart 97964 replace transmission time 0651 by 0810 UTC, and in column 8:
- Amend to read as follows:
(H+96, H+120, H+144, H+168)
500 hPa H+T, Surface P,
850 hPa T, 700 hPa F (GM)

Charts 97962 at 0611 UTC, 97882 at 0631 UTC, 97884 at 1830 UTC and 97966 at 1941 UTC, in column 8:

- Replace: 'BKF' by 'EM'

Delete under 'Note' the abbreviations 'BKF' and 'BKN' with all instructions.

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W/OIS

Annexes: 3

GENEVA, 30 April 1991

Subject : Monthly letter on the operation of the World Weather Watch (WWW) and Marine Meteorological Services (MMS) April 1991

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

Dear Sir/Madam,

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

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

Annex I - Global Observing System

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

1. Publication No. 9, Volume A - Stations

1.1 New stations
1.2 Deleted stations
1.3 Changes to existing stations
1.5 Temporary changes

2. WMO Catalogue of Radiosondes in use by Members

To: Permanent Representatives (or Directors of Meteorological or Hydro-meteorological Services) of Members of WMO (PR-4619)
Directors of Meteorological Services of non-Member countries (MC-2446)
Presidents and Vice-Presidents of Regional Associations (P.RA-1269)
Presidents and Vice-Presidents of Technical Commissions (P.TC-1387)
Chairmen of CBS Working Groups
Secretary-General of ICAO
Director-General of IATA
Secretary of IOC
Director-General of ASECNA
Director of ECMWF

4. Automatic marine stations

5. ARGOS

5.1 ARGOS monthly status report

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

D. Information on operational status of space sub-system

Annex IV - Codes

B. Manual on codes

3. National practices

3.3 Changes to codes

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 6, "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: April 1991

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

1. Publication No. 9, Volume A - Stations

1.1 New Stations

06142 ALBUEN 54°50'N 10°58'E - 6 X X X X X X X X . . . . /

1.2 Deleted stations

06139 KELDSNOR

1.3 Changes to existing stations

02432 OREBRO FLYGPLATS . . X X X X . . . . . /

1.5 Temporary changes

Notification from Argentina that 1200 UTC radiosonde/radiowind observations at station 87155 RESISTENCIA AERO have been resumed as from 25 March 1991.

2. WMO Catalogue of Radiosondes in use by Members

Notification from Australia that :

(a) The following radiosonde stations changed to using PC-CORA radiosonde ground equipment. Data are computed at 3 hPa. Solar radiation corrections are applied. VAISALA RS-80 radiosondes will continue to be used:

94527 MOREE on 15 April 1991 at 2300 UTC
94646 FORREST AIRPORT on 27 March 1991 at 2300 UTC
94659 WOOMERA METEOROLOGICAL OFFICE on 19 March 1991 at 2300 UTC
94672 ADELAIDE AIRPORT on 17 April 1991 at 2300 UTC
94975 HOBART AIRPORT on 2 March 1991 at 2300 UTC

(b) The following radiosonde stations changed to using PC-CORA radiosonde ground equipment. VAISALA RS-80 radiosondes will continue to be used:

94332 MT ISA AIRPORT ON 28 March 1991 at 2300 UTC
94578 BRISBANE AIRPORT on 29 March 1991 at 2300 UTC
94610 PERTH AIRPORT on 22 March 1991 at 2300 UTC
94637 KALGOORLIE AIRPORT on 10 April 1991 at 1100 UTC
94638 ESPERANCE on 19 March 1991 at 2300 UTC
94711 COBAR on 2 April 1991 at 2300 UTC
94776 WILLIAMTOWN AERODROME on 22 March 1991 at 2300 UTC
94802 ALBANY AIRPORT on 25 March 1991 at 2300 UTC

Notification from New Zealand that as from 8 April 1991 at 1200 UTC station 93844 INVERCARGILL AERODROME changed from manual processing of radiosonde observations to the VAISALA PC-CORA system. VAISALA RS-80-15 radiosondes will continue to be used.

4. Automatic marine stations

Canada

Data from moored and drifting buoys are collected via geostationery 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 Terminal in Edmonton and distributed on the GTS using the FM 14-VIII DRIBU code.

Legend

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

Moored Buoys (North-east Pacific Ocean):

| WMO buoy Identifier | Position 01 March 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|
| 46004 | 50°56'N | 135°52'W | X X X X X X X X |
| 46036 | 48°18'N | 133°51'W | X . X X X X X X |
| 46181 | 53°49'N | 128°51'W | X X X X X X X X |
| 46182 | 49°29'N | 123°18'W | X X X X X X X X |
| 46184 | 53°56'N | 138°48'W | X X X X X X X X |
| 46185 | 52°25'N | 129°48'W | X X X X X X X X |
| 46204 | 51°14'N | 128°27'W | X X X X X X X X |
| 46205 | 54°10'N | 134°20'W | X X X X X X X X |
| 46206 | 48°50'N | 126°00'W | X X X X X X X X |
| 46207 | 50°31'N | 129°33'W | X X X X X X X X |
| 46208 | 52°18'N | 132°25'W | X X X X X X X X |

Moored Buoys (North-west Atlantic Ocean):

| WMO buoy Identifier | Argos Identifier | Position 19 March 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 44137 | 05579 | 41°14'N | 061°14'W | X X X X X X . X |
| 44139 | 03448 | 44°19'N | 057°21'W | X X X X X X . X |
| 44140 | 05576 | 42°44'N | 050°36'W | X . X X X . . X |
| 44142 | 05578 | 42°30'N | 064°12'W | X X X X X X . X |

Moored Buoys (Great Lakes):

| WMO buoy Identifier | Position 19 March 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|
| 45132 | 42°06'N | 083°00'W | X X X X X X . X |
| 45135 | 44°42'N | 076°48'W | X X X X X X . X |
| 45137 | 45°20'N | 080°02'W | X X X X . . . X |
| 45139 | 43°12'N | 079°30'W | X X X X X X X X |

Drifting Buoys (North-east Pacific Ocean):

| WMO buoy Identifier | Argos Identifier | Position 19 March 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 46632 | 12511 | 44°05'N | 141°50'W | . X X . X . . . |
| 46681 | 07135 | 49°49'N | 157°29'W | . X X . X . . . |
| 46684 | 07137 | 43°24'N | 163°49'W | . X X . X . . . |
| 46687 | 07138 | 37°26'N | 134°33'W | . X X . X . . . |
| 46693 | 07140 | 37°23'N | 143°00'W | . X X . X . . . |
| 46694 | 07141 | 25°37'N | 149°38'W | . X X . X . . . |
| 46695 | 07142 | 26°23'N | 150°04'W | . X X . X . . . |
| 46703 | 06269 | 51°33'N | 136°53'W | . X X . X . . . |
| 46704 | 07128 | 46°30'N | 144°47'W | . X X . X . . . |
| 46705 | 07129 | 50°03'N | 142°55'W | . X X . X . . . |
| 46706 | 07130 | 41°53'N | 131°27'W | . X X . X . . . |
| 46707 | 07131 | 26°31'N | 142°38'W | . X X . X . . . |

Drifting Buoys (Arctic Icepack)):

| WMO buoy Identifier | Argos Identifier | Position 25 February1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 48523 | 01107 | 74°39'N | 135°58'W | . X X X . . . . |

United States of America

List of U.S.A. Ocean Data Acquisition System (ODAS) included in the April 1991 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 DRIBU code.

Legend

| Column | Observed or technical parameters |
|---|---|
| 1 | Wind direction and speed |
| 2 | Air temperature |
| 3 | Pressure |
| 4 | Pressure tendency |
| 5 | Sea-surface temperature |
| 6 | Wave period and height |
| 7 | Wave spectra |
| 8 | Drogued |

Moored Buoys:

| WMO buoy Identifier | Position 11-18 April 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 41006** | 29°18'N | 77°24'W | * | * | * | * | * | * | * |
| 41008 | 30°42'N | 81°06'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 |
| 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 |
| 44004** | 38°30'N | 70°36'W | X | X | X | X | X | X | X |
| 44005** | 42°42'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 |
| 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 |
| 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 | X |
| 45001** | 48°00'N | 87°42'W | X | X | X | X | X | X | X |
| 45002** | 45°18'N | 86°24'W | * | 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 |
| 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°48'N | 87°06'W | 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 | * | * | * | * | * | * | * |
| 46002** | 42°30'N | 130°24'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°48'N | 137°42'W | * | * | * | * | * | * | * |
| 46010** | 46°12'N | 124°12'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 | X | X | X | X | X | X | X |

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

* Sensor/system failure

Moored Buoys (continued):

| WMO buoy Identifier | Position 11-18 April 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 |
|---|---|---|---|
| 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 X |
| 46028 | 35°48'N | 121°54'W | X X X X X X X |
| 46030 | 40°24'N | 124°30'W | X X X X * X X |
| 46035 | 57°00'N | 177°42'W | X X X X X X X |
| 46040 | 44°48'N | 124°18'W | X X X X X X X |
| 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 X |
| 46045 | 33°48'N | 118°24'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°12'N | 160°48'W | X X X X X X X |
| 51004** | 17°30'N | 152°30'W | X X X X X X X |

Drifting Buoys:

| WMO buoy Identifier | Argos Identifier | Position 17/18 April 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 14803 | 08844 | 29°S | 033°E | . X X . X . . . |
| 14804 | 08845 | 25°S | 052°E | . X X . X . . . |
| 16807 | 05133 | 51°S | 010°W | . X X . X . . . |
| 17803 | 05571 | 40°S | 091°E | X * X . . . . X |
| 17804 | 12300 | 38°S | 087°E | . * X . X . . . |
| 17805 | 12304 | 32°S | 077°E | . * X . X . . . |
| 17806 | 12306 | 39°S | 003°W | . X X . X . . . |
| 17809 | 05125 | 44°S | 009°W | . X X . X . . . |
| 17810 | 05126 | 40°S | 002°E | . X X . X . . . |
| 17825 | 05129 | 45°S | 001°E | . X X . X . . . |
| 33301 | 12310 | 56°S | 028°W | . X X . . . . . |
| 33509 | 12307 | 44°S | 044°W | . X X . X . . . |
| 33510 | 12308 | 47°S | 006°E | . X X . X . . . |
| 33826 | 12296 | 60°S | 034°E | . X X . X . . . |
| 33827 | 12297 | 49°S | 061°E | . X X . X . . . |
| 33828 | 12298 | 44°S | 050°E | . X X . X . . . |
| 33830 | 12305 | 43°S | 034°E | . X X . . . . . |
| 54829 | 06762 | 40°S | 160°W | . * X . X . . . |
| 54830 | 06763 | 44°S | 114°W | . * X . X . . . |
| 54831 | 06764 | 46°S | 111°W | . X X . X . . . |

* Sensor/system failure.

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

Drifting Buoys (continued):

| WMO buoy Identifier | Argos Identifier | Position 17/18 April 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 54832 | 06585 | 42°S | 164°W | X X X . X . . X |
| 54833 | 06586 | 44°S | 145°W | X X X . . . . X |
| 54834 | 06583 | 37°S | 154°W | X X X . X . . X |
| 54835 | 06731 | 39°S | 157°W | . X X . X . . . |
| 54836 | 05128 | 34°S | 170°W | . X X . X . . . |
| 54837 | 05135 | 31°S | 158°W | . X X . X . . . |
| 54838 | 08823 | 45°S | 169°W | . X X . X . . . |
| 54839 | 12312 | 43°S | 160°W | . X X . X . . . |
| 54840 | 05120 | 51°S | 177°W | . X X . X . . . |
| 54841 | 05121 | 54°S | 167°W | . X X . X . . . |
| 54842 | 05122 | 47°S | 170°W | . X X . X . . . |
| 54843 | 05134 | 49°S | 157°W | . X X . X . . . |
| 55802 | 08843 | 26°S | 052°E | . X X . X . . . |
| 55803 | 05136 | 61°S | 164°W | . X X . X . . . |
| 56827 | 09221 | 61°S | 159°E | . * X . * . . . |
| 56832 | 09219 | 13°S | 107°E | . X X . X . . . |

* Sensor/system failure

## 5. ARGOS service

### 5.1 ARGOS monthly status report

As at 4 April 1991 the Argos service was handling reports from 615 drifting buoys, 130 moored buoys, 6 balloons, 35 ships, 148 animal trackings, 413 fixed stations, 195 boats and 40 miscellaneous platforms. DRIBU reports from 85 drifting buoys and BATHY reports from 27 selected ships were transmitted to the RTH Paris and DRIBU reports from 227 drifting 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 | 55511 | 00418 |
| | 56001 | 04873 |
| | 56501 | 02934 |
| | 56502 | 02936 |
| | 56503 | 08035 |
| | 56504 | 08036 |
| | 56505 | 08037 |
| | 56546 | 02951 |
| | 56547 | 04870 |
| | 56548 | 04871 |
| | 56549 | 04872 |
| | 62559+ | 12059 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Australia (continued) | 62562+ | 12028 |
| | 65569+ | 12010 |
| | 62575+ | 12038 |
| | 62580+ | 12006 |
| | 62581+ | 12011 |
| | 62582+ | 12015 |
| | 62587+ | 12036 |
| | 62588+ | 12041 |
| | 62590+ | 12054 |
| | 9VBZ* | 09195 |
| | 9VUU* | 09190 |
| | 9VWM* | 09187 |
| | GYRW* | 09197 |
| | GYSA* | 09189 |
| | S6FK* | 09193 |
| | VJBQ* | 09196 |
| | VJDP* | 09198 |
| Canada | 21551 | 01314 |
| | 21552 | 01315 |
| | 21553 | 01316 |
| | 44631 | 02376 |
| | 44632 | 05437 |
| | 44634 | 02377 |
| | 44635 | 08666 |
| | 44754 | 01055 |
| | 44755 | 03319 |
| | 44756 | 03320 |
| | 44757 | 04762 |
| | 44758 | 08648 |
| | 46644 | 01198 |
| | 46645 | 01199 |
| | 46646 | 01310 |
| | 46649 | 01313 |
| | 46650 | 01424 |
| | 46655 | 01429 |
| | 46656 | 08090 |
| | 46657 | 08093 |
| | 47531 | 05218 |
| | 47542 | 05217 |
| | 47559 | 04004 |

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

* PTT's transmitting at irregular intervals

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| France | 13531 | 05832 |
| | 44610 | 10102 |
| | 62503 | 05790 |
| | 62513 | 05829 |
| | 62516 | 05833 |
| | 62518 | 10104 |
| | 64516 | 05796 |
| | 64606 | 03711 |
| | 3EBD* | 04725 |
| | A3BZ* | 04709 |
| | C6HL* | 04705 |
| | DIDA* | 08742 |
| | ELIS* | 04716 |
| | FH62* | 04727 |
| | FITA* | 04723 |
| | FNCZ* | 08744 |
| | FNGS* | 04707 |
| | FNJT* | 04722 |
| | FNOM* | 04701 |
| | FNPA* | 04706 |
| | FNQB* | 04726 |
| | FNZP* | 04719 |
| | FNZQ* | 04703 |
| | FPYO* | 04729 |
| | GTIA* | 04712 |
| | HPEW* | 04720 |
| | ZDBE* | 04718 |
| Germany | 71524 | 03315 |
| | 71543 | 08055 |
| | 71545 | 09353 |
| | 71546 | 09354 |
| | 71548 | 09360 |
| Japan | 52060 | 08718 |
| | 62551 | 12001 |
| | 62552 | 12020 |
| | 62553 | 12025 |
| | 62554 | 12035 |
| | 62555 | 12039 |
| | 62556 | 12042 |
| | 62557 | 12048 |

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

* PTT's transmitting at irregular intervals.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Japan (continued) | 62558 | 12056 |
| | 62560 | 12002 |
| | 62561 | 12018 |
| | 62563 | 12031 |
| | 62564 | 12045 |
| | 62565 | 12047 |
| | 62566 | 12050 |
| | 62567 | 12004 |
| | 62568 | 12005 |
| | 62570 | 12022 |
| | 62571 | 12024 |
| | 62572 | 12030 |
| | 62573 | 12033 |
| | 62574 | 12037 |
| | 62576 | 12040 |
| | 62577 | 12046 |
| | 62578 | 12049 |
| | 62579 | 12053 |
| | 62583 | 12007 |
| | 62584 | 12023 |
| | 62585 | 12027 |
| | 62586 | 12029 |
| New Zealand | 55579 | 06435 |
| | 55582 | 07175 |
| | 55583 | 07179 |
| | 55584 | 07178 |
| | 55585 | 07177 |
| Norway | 17001 | 01591 |
| | 17003 | 01758 |
| | 62694 | 03670 |
| | 63002 | 09407 |
| | 65591 | 06666 |
| | 74001 | 09405 |
| South Africa** | 17524 | 09099 |
| | 17527 | 09087 |
| | 17528 | 08260 |
| | 17529 | 09088 |
| | 17533 | 09091 |
| | 33021 | 09085 |

** 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.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United Kingdom | 62608 | 03919 |
| | 62803 | 06299 |
| | 62804 | 06305 |
| | 62805 | 06285 |
| United States of America | 12847+ | 11191 |
| | 14803 | 08844 |
| | 14804 | 08845 |
| | 16807 | 05133 |
| | 16808 | 05127 |
| | 17803+ | 05571 |
| | 17804 | 12300 |
| | 17805 | 12304 |
| | 17806 | 12306 |
| | 17809 | 05125 |
| | 17810 | 05126 |
| | 17825 | 05129 |
| | 25537 | 12805 |
| | 31502 | 09844 |
| | 32317+ | 06519 |
| | 32513 | 11910 |
| | 32514 | 10836 |
| | 32515 | 11898 |
| | 32517 | 15093 |
| | 32518 | 15091 |
| | 32522 | 10808 |
| | 32523 | 10809 |
| | 32525 | 11192 |
| | 32528 | 10820 |
| | 32529 | 11194 |
| | 32531 | 10812 |
| | 32532 | 11897 |
| | 32535+ | 11907 |
| | 32537 | 10839 |
| | 32538 | 11172 |
| | 32540 | 11904 |
| | 32541+ | 11656 |
| | 32543 | 11015 |
| | 32544 | 11908 |
| | 32545 | 10849 |
| | 32546 | 11160 |
| | 32549 | 11163 |
| | 32550 | 11894 |
| | 32552 | 11195 |
| | 32553 | 10841 |

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

| Operating country | WMO Identifier/call sign | Argos Identifier |
|---|---|---|
| United States of America (continued) | 32554 | 10840 |
| | 32558 | 09276 |
| | 32560 | 11572 |
| | 32814+ | 07491 |
| | 33301 | 12310 |
| | 33509 | 12307 |
| | 33510 | 12308 |
| | 33826 | 12296 |
| | 33827 | 12297 |
| | 33828 | 12298 |
| | 33830 | 12305 |
| | 41012+ | 01602 |
| | 41014+ | 01606 |
| | 41511 | 09846 |
| | 41513 | 09853 |
| | 42525+ | 07494 |
| | 43502 | 11168 |
| | 43504 | 11198 |
| | 43508 | 11171 |
| | 43510 | 11628 |
| | 43801 | 06898 |
| | 44016+ | 01605 |
| | 44017+ | 01604 |
| | 44020+ | 01609 |
| | 44021+ | 01608 |
| | 44504+ | 04561 |
| | 44505+ | 09878 |
| | 44510+ | 04530 |
| | 44518 | 09841 |
| | 44520 | 09856 |
| | 44521 | 12753 |
| | 44523 | 12772 |
| | 44528 | 12768 |
| | 44530 | 12770 |
| | 44534 | 12771 |
| | 44538 | 12762 |
| | 44541 | 12763 |
| | 44542 | 12764 |
| | 44543 | 12765 |
| | 44544 | 12766 |
| | 44545 | 12767 |
| | 44551 | 12453 |
| | 46510 | 12672 |
| | 46511 | 12690 |
| | 46512 | 12691 |
| | 46514 | 12693 |
| | 47601 | 12785 |
| | 47603 | 12809 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 48518 | 12800 |
| | 48519 | 12783 |
| | 48520 | 12801 |
| | 48554 | 12802 |
| | 48555 | 12806 |
| | 48556 | 12807 |
| | 48557 | 12808 |
| | 51006+ | 06521 |
| | 51007+ | 06475 |
| | 51008+ | 06518 |
| | 51014+ | 06571 |
| | 51510 | 11671 |
| | 51511 | 06883 |
| | 51512 | 15089 |
| | 51513 | 11663 |
| | 51514 | 11675 |
| | 51515 | 11678 |
| | 51516 | 09274 |
| | 51517 | 11676 |
| | 51518 | 15077 |
| | 51519 | 11646 |
| | 51520 | 11653 |
| | 51801 | 11197 |
| | 51802 | 11650 |
| | 51803 | 11912 |
| | 51804 | 15092 |
| | 51806 | 09279 |
| | 51807 | 15094 |
| | 51808 | 15085 |
| | 51809+ | 11199 |
| | 51810 | 15087 |
| | 51811 | 11644 |
| | 51812 | 15079 |
| | 51813 | 11569 |
| | 51814 | 11682 |
| | 51816 | 11620 |
| | 51817 | 11655 |
| | 51818 | 11630 |
| | 51819 | 11645 |
| | 51820 | 11687 |
| | 51821 | 11690 |
| | 51822 | 11870 |
| | 51823 | 15095 |
| | 51824 | 11685 |
| | 51825 | 11686 |
| | 51826 | 11871 |
| | 51827 | 11688 |
| | 51828 | 11695 |

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

| Operating country | WMO Identifier/call sign | Argos Identifier |
|---|---|---|
| United States of America (continued) | 51829 | 11202 |
| | 51830 | 15088 |
| | 51831 | 11689 |
| | 51832 | 11691 |
| | 51833 | 11872 |
| | 51834 | 11170 |
| | 51835 | 09271 |
| | 51836 | 09270 |
| | 51837 | 15096 |
| | 51839 | 11700 |
| | 51840 | 15090 |
| | 51841 | 15098 |
| | 51842 | 11702 |
| | 51843 | 11703 |
| | 51844 | 09275 |
| | 51846 | 11692 |
| | 51847 | 11706 |
| | 51849 | 15097 |
| | 51850 | 11662 |
| | 51853 | 11694 |
| | 51855 | 11705 |
| | 51856 | 15082 |
| | 51857 | 11667 |
| | 51858 | 11668 |
| | 51861 | 15099 |
| | 51862 | 11670 |
| | 51863 | 11564 |
| | 51865 | 11623 |
| | 51866 | 11664 |
| | 51867 | 11666 |
| | 51868 | 11669 |
| | 51869 | 11674 |
| | 51870 | 11679 |
| | 51871 | 11693 |
| | 51872 | 11696 |
| | 51873 | 11699 |
| | 51874 | 11701 |
| | 51875 | 11704 |
| | 51876 | 11683 |
| | 51877 | 15073 |
| | 51878 | 15072 |
| | 51879 | 15074 |
| | 51880 | 15078 |
| | 51881 | 15080 |
| | 51882 | 15081 |
| | 51883 | 15083 |
| | 51884 | 15084 |
| | 51885 | 15086 |

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 52001+ | 06799 |
| | 52003+ | 12522 |
| | 52004+ | 12523 |
| | 52006+ | 12525 |
| | 52051 | 09272 |
| | 52052 | 09278 |
| | 52301+ | 06381 |
| | 52302+ | 06460 |
| | 52528 | 12499 |
| | 52813 | 10835 |
| | 52827 | 10823 |
| | 52847 | 11191 |
| | 52853 | 11624 |
| | 52854 | 11626 |
| | 52866 | 11887 |
| | 52867 | 11893 |
| | 52868 | 11876 |
| | 52872 | 11890 |
| | 52875 | 11896 |
| | 52877 | 11883 |
| | 52878 | 11885 |
| | 53502 | 12498 |
| | 53809 | 11886 |
| | 54829 | 06762 |
| | 54830 | 06763 |
| | 54831 | 06764 |
| | 54832+ | 06585 |
| | 54833+ | 06586 |
| | 54834+ | 06583 |
| | 54835 | 06731 |
| | 54836 | 05128 |
| | 54837 | 05135 |
| | 54838 | 08823 |
| | 54839 | 12312 |
| | 55802 | 08843 |
| | 55803 | 05136 |
| | 56827 | 09221 |
| | 56831+ | 09217 |
| | 56832 | 09219 |
| | 62672 | 09859 |
| | 64581 | 12804 |
| | 64589 | 12708 |
| | 65503 | 12803 |

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

ATLAS buoys (transmitting again on GTS)

| WMO Identifier/call sign | Argos Identifier |
|---|---|
| 32316 | 06370 |
| 32317 | 06519 |
| 32318 | 06371 |
| 51006 | 06521 |
| 51007 | 06475 |
| 51008 | 06518 |
| 51009 | 06461 |
| 51010 | 06375 |
| 51014 | 06517 |
| 52001 | 06799 |
| 52003 | 12522 |
| 52004 | 12523 |
| 52006 | 06521 |
| 52301 | 06514 |

ATLAS buoys (continued)

Whereas the data of the following ones (old-style electronics) have been distributed (some on an irregular basis):

| WMO Identifier/call sign | Argos Identifier |
|---|---|
| 17803 | 05571 |
| 41530 | 12688 |
| 42525 | 07494 |
| 54832 | 06585 |
| 54833 | 06586 |
| 54834 | 06583 |

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

In view of the difficulties experienced at present in identifying non-implemented observing stations or implemented stations which are closed or suspended for a certain period, or stations making observations but not reaching their NMCs, the ninth session of the CBS Advisory Working Group recommended that a special table be added to the WWW monthly operational letter to serve as feed-back from Members to the Secretariat on any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations.

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

D. Information on operational status of space-based sub-system

GOES Status Report - (from 15 April 1991 to 21 April 1991

GOES-7:

Prime spacecraft (GOES-7)

(A) VAS operations, mode AAA, with MSI at 01 and 31 minutes past each hour with the following comment(s) exception(s):

1. MSI at 1820 UTC each Wednesday cancelled for visible channel calibration.
2. MSI at 1222 UTC each Sunday and Thursday cancelled for torque management.
3. Sun avoidance operations 10 April through to 17 April 1991.

(B) WEFAX broadcasts: simultaneous, see operational message broadcast at 1055 UTC for schedule.

Status of NOAA polar orbiting satellites

NOAA-D: Is scheduled for launch on 14 May 1991, at approximately 1552 UTC, and will cross the equator at 0730 (local time) descending. NOAA-D to become NOAA-12 will replace NOAA-10 as the operational morning descending spacecraft.

NOAA-10: (Operational), morning descending, AVHRR (HRPT, APT), DCS, MSU, SAR, SEM. ERBE scanner failed 22 May 1989. AVHRR scan motor has high jitter. DTR-1B designated safestate DTR, not used for daily operations.

NOAA-11: (Operational), afternoon ascending, AVHRR (HRPT, APT), SSU, DCS, SBUV, SAR. ROLL(Y) GYRO failed 19 September 1989. NOAA-11 is still experiencing difficulty in the Inertial Measurement Unit (IMU). When an IMU switch periodically occurs, new GYRO software is activated. IMU switching can cause yaw errors up to 1 degree that can remain for 4 revolutions.

| | HRPT | APT | BCN |
|---|---|---|---|
| NOAA-9 | 1707(HSB) | 137.62(VTX2) | 137.77(BTX2) |
| NOAA-10 | 1698(LSB) | 137.50(VTX1) | 136.77(BTX1) |
| NOAA-11 | 1707(HSB) | 137.62(VTX2) | 137.77(BTX2) |

Status of FY-1B

FY-1B: On 14 February 1991, a computer memory failure resulted in the un-commanded firing of the control jets. All nitrogen has apparently been depleted. FY-1B is rotating about the pitch axis at about 9 revolutions per minute. Some reduction in the initial rotation has been achieved from the magnetic and GYRO control systems. Solar power is still available and all instruments appear to be in good condition.

Status of U.S.S.R. satellites

METEOR 2-20 continues to transmit daytime visible mode imagery during south to north passes each morning. The synchronizing bars are missing from METEOR 2-20 imagery at this time. METEOR 3-3 now transmits visible mode imagery during daytime passes. In addition, IR imagery is available during night time passes. A single, short, 240 line per minute transmission was heard on 137.400 MHz recently, possible coming from OKEAN-2.

Status of EUMETSAT satellites

METEOSAT-5 was successfully launched at 2336 UTC on 02 March 1991. All spacecraft systems currently tested appear normal. The spacecraft is presently around 3 degrees West. Radiometer commissioning began on 3 april. The first visible image was taken at 1155 UTC on 3 april. Quality of images looks very good. The first IR and WV images were taken at 0830 UTC on 4 April. Although uncalibrated and with still varying detection temperature, quality of both images also appears very good. End of commissioning expected within two weeks.

METEOSAT-4 is the operational satellite at 0 degrees East/West and all missions are nominal.

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

(explanatory notes overleaf)

Global Exchange/Regional Exchange (delete as appropriate) Country: _____

| Station index number | Bulletin identification TTAAii CCCC | Implementation of observing programme 00 03 06 09 12 15 18 21 | Alternate observing station | Remarks |
|---|---|---|---|---|
| 1. SYNOP | | | | |
| 2. TEMP | | | | |
| 3. PILOT | | | | |

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

1. Separate tables should be prepared for global exchange and regional exchange respectively. These tables should contain information concerning any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations given in Attachment I-4 of the Manual on the GTS, Volume I for global exchange and, as applicable, Attachments AF-I, AI-1, SA-1, NA-1, PS-1 and EU-1 of the Manual on the GTS, Volume II for regional exchange.

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

   (a) In the column "Station index number", the index number (IIiii) of each station should be entered in case of any changes in the observing programmes of the stations;

   (b) In the column "Bulletin identification", the TTAAii CCCC of the abbreviated heading of the meteorological bulletins which contains reports from the station should be inserted;

   (c) In the column "Implementation of observing programme", "X" for implementation and "-" for non-implementation should be inserted as appropriate. In order to easily identify changes in the programme, this should be marked in red;

   (d) In the column "Alternate observing station", the index number (IIii) of an alternate observing station should be inserted in case another station is available with a view to filling gaps which are caused by suspension of observing programmes of the original station;

   (e) The required information concerning the observing programme of the alternate station should be inserted in the next horizontal line of the original station;

   (f) In the column "Remarks", reasons of temporary suspension of observing programmes and an expected date of resumption of the programmes should be given as far as possible. Non-standard collection and/or distribution times should also be included.

3. These tables should be sent to the Secretariat before the 1st of the month for inclusion of the changes in the monthly operational letter, as appropriate.

# Annex IV - Codes

Date: April 1991

B. Manual on codes

3. National practices

3.3 Changes to codes

Volume II - National VI - Section H - Specifications of zone numbers of sub-areas/route segments, notified by Members, for which GAFOR will be notified

Code RF 6/02 GAFOR - General aviation forecast

GERMANY

The following pages to the 1987 edition of WMO Publication No. 306 Volume II - National VI - Section H - Specifications of zone numbers of sub-areas/route segments, notified by Members, for which GAFOR will be notified are to be changed as follows:

Page II-6-H-5: for all sub-areas of Germany mandatory reference heights above mean sea level are indicated.

REGION VI

GERMANY

**Specification of sub-areas**

| *Area No.* | *Geographical designation* | *Reference height above mean sea level* |
|---|---|---|
| 11 | Ostfriesland | 100 |
| 12 | Nordfriesland-Dithmarschen | 100 |
| 13 | Schleswig-Holsteinische Geest | 200 |
| 14 | Nordwestliches Niedersachsen | 200 |
| 15 | Schleswig-Holsteinisches Hügelland | 300 |
| 21 | Westliches Niedersachsen | 300 |
| 22 | Lüneburger Heide | 400 |
| 23 | Teutoburger Wald | 700 |
| 24 | Weser-Leine-Bergland | 1400 |
| 25 | Hannover-Braunschweig | 500 |
| 31 | Niederrheinisches Tiefland | 300 |
| 32 | Münsterland | 500 |
| 33 | Ruhrgebiet | 500 |
| 34 | Niederrheinische Bucht | 700 |
| 35 | Bergisches Land | 1400 |
| 36 | Sauerland | 2400 |
| 37 | Eifel | 2000 |
| 38 | Neuwieder Becken | 800 |
| 39 | Westerwald | 1900 |
| 41 | Hunsrück | 2300 |
| 42 | Taunus | 1900 |
| 43 | Nordhessisches Bergland mit Vogelsberg | 2000 |
| 44 | Rheinpfalz und Saarland | 1900 |
| 45 | Rhein-Main-Gebiet und Wetterau | 700 |
| 46 | Odenwald und Spessart | 1700 |
| 47 | Rhön | 2800 |
| 51 | Oberrheinische Tiefebene | 900 |
| 52 | Kraichgau | 1100 |
| 53 | Neckar-Kocher-Jagst-Gebiet | 1700 |
| 54 | Mainfranken und Nördliches Unterfranken | 1400 |
| 55 | Mittelfranken | 1700 |
| 56 | Oberfranken | 1900 |
| 57 | Frankenwald und Fichtelgebirge | 2700 |
| 61 | Schwarzwald | 4000 |
| 62 | Schwäbische Alb | 3000 |
| 63 | Fränkische Alb | 2000 |
| 64 | Oberpfälzer Wald | 2400 |
| 71 | Hochrhein- und Bodenseeraum | 2100 |
| 72 | Schwäbische Hochebene | 2400 |
| 73 | Westliche Donauniederung | 1700 |
| 74 | Südbayerisches Hügelland | 1800 |
| 75 | Östliche Donau- und Naabniederung | 1600 |
| 76 | Bayerischer Wald | 3300 |
| 81 | Westliches Alpenvorland | 3300 |
| 82 | Östliches Alpenvorland | 2500 |
| 83 | Allgäuer Alpen | 6500 |
| 84 | Östliches Bayerisches Alpengebiet | 6500 |

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

Date: April 1991

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

Germany

Aii-VI Notification from RTH Offenbach that: OFFENBACH(MAIN)-HAMBURG/PINNEBERG (DDH3/DDK3/DDK6) radio-facsimile broadcast for shipping effective 15 April 1991 changes as follows:

Chart 97909 at 1520 UTC replace H+36 by H+60.
Chart 97962 replace transmission time 0611 by 0651 UTC
Chart 97878 at 0745 UTC and 97879 at 1845 UTC amend to read in column 8: "Arrows showing the movement of pressure systems, tropical storms, significant weather"

Sweden

Ai-VI Group(e)s: B,D SVERIGES RADIO, effective 1 April 1991, modify as follows:
Column 8: replace 1542(1442) by 1540(1440)
1725(1625) by 1730(1630)

Under "List of Stations(3)" replace 02382 Härnö by Lungö

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

Israel - Israël (1.IV.1991)

Changes (pages: D-$C_1$-VI-14 and 15)

| (1) | (2) | (3) |
|---|---|---|
| Ashdod | A. Ophir, PMO, Ashdod Port<br>or / ou<br>Senior Duty Officer, Central Forecasting Office<br>Israel Meteorological Service<br>P.O. Box 25,<br>Bet Dagan | (08) 524956<br><br>(03) 9682146 |
| Elat | J. David, District Meteorological Station, Israel Meteorological Service,<br>P.O. Box 68, Elat | (059) 72206 |
| Haifa | H. Arbel, Chief, Ship Supervision Section<br>Port Meteorological Office,<br>Israel Meteorological Service,<br>P.O. Box 33572, Haifa<br>or/ou Senior Duty Officer, Central Forecasting Office, Israel Meteorological Service<br>P.O. Box 25, Bet Dagan | (04) 664427<br><br><br><br>(03) 9682146 |

ORGANISATION MÉTÉOROLOGIQUE MONDIALE

WORLD METEOROLOGICAL ORGANIZATION

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W/OIS

Annexes: 3

GENEVA, 31 May 1991

Subject : Monthly letter on the operation of the World Weather Watch (WWW) and Marine Meteorological Services (MMS) May 1991

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

Dear Sir/Madam,

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

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

Annex I - Global Observing System

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

1. Publication No. 9, Volume A - Stations

1.1 New stations
1.3 Changes to existing stations
1.5 Temporary changes

3. Mobile sea stations

3.2 Automated Shipboard Aerological Programme (ASAP)

To: Permanent Representatives (or Directors of Meteorological or Hydro-meteorological Services) of Members of WMO (PR-4622)
Directors of Meteorological Services of non-Member countries (MC-2447)
Presidents and Vice-Presidents of Regional Associations (P.RA-1270)
Presidents and Vice-Presidents of Technical Commissions (P.TC-1388)
Chairmen of CBS Working Groups
Secretary-General of ICAO
Director-General of IATA
Secretary of IOC
Director-General of ASECNA
Director of ECMWF

4. Automatic marine stations

5. ARGOS Service

5.1 ARGOS monthly status report

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

Annex III - Global Telecommunication System

A. GTS regulatory or guidance material

3. Amendments to the Manual on the Global Telecommunication System

C. Information on the operation of the GTS

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

1.3 Changes to bulletins

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

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

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 6, "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: May 1991

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

1. Publication No. 9, Volume A - Stations

1.1 New Stations

03840 DUNKESWELL AERODROME 50°52'N 03°14'W - 255 X X XX X X X X H00-24 . . . . ./

1.3 Changes to existing stations

| | | | | |
|---|---|---|---|---|
| 13008 | KREDARICA | X X X X X X X X | . . . | ./ |
| 13340 | LIVNO | . X X X X X X . | . . . | ./ |
| 71852 | WINNIPEG INT. AIRPORT | X . X . X . X . | . . . | ./ |
| 78583 | BELIZE/INT. AIRPORT | X X . . X X X X | RW . RW | ./ |

(Will resume 24-hour observations by the end of 1991)

| | | | | |
|---|---|---|---|---|
| 85470 | COPIAPO | X . . . X X X X | . . . | ./ |
| 85577 | SANTIAGO Q. NORMAL | X . . . X X X X | . . . | ./ |
| 89056 | CENTRO MET. ANTARTICO "PDTE EDUARDO FREI" | X X X X X X X X | . . . | ./ |

1.5 Temporary changes

Notification from Argentina that radiosonde/radiowind observations have been resumed at station 87576 EZEIZA AERO as from 0000 UTC on 1 April 1991 .

And from 0000 UTC on 1 May 1991 at the following stations:

87047 SALTA AERO
87418 MENDOZA AERO
87623 SANTA ROSA AERO
87715 NEUQUEN AERO
87860 COMODORO RIVADAVIA AERO

3. Mobile sea stations

3.2 Automated Shipboard Aerological Programme (ASAP)

Canada (ASAP messages - call-sign change)

- One of the ASAP ships is changing ownership and so the call-sign in the messages is changing, as well as the ship's name. The transmitter platform I.D., timeslots and channel number are not being affected.
- The ship is the SKEENA, call-sign ZSCK. The new name is SKAUBRYN and the new call-sign is LAJV4.
- This change was made on 21 March 1991.

4. Automatic marine stations

Canada

Data from moored and drifting buoys are collected via geostationery 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 Terminal in Edmonton and distributed on the GTS using the FM 14-VIII DRIBU code.

Legend

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

Moored Buoys (North-east Pacific Ocean):

| WMO buoy Identifier | Position 28 April 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|
| 46004 | 50°56'N | 135°52'W | X X X X X X X X |
| 46036 | 48°18'N | 133°51'W | X . X X X X X X |
| 46145 | 54°23'N | 132°22'W | X X X X X X X X |
| 46181 | 53°49'N | 128°51'W | X X X X X X X X |
| 46182 | 49°29'N | 123°18'W | X X X X X X X X |
| 46183 | 53°34'N | 131°09'W | X X X X X X X X |
| 46184 | 53°56'N | 138°48'W | X X X X X X X X |
| 46185 | 52°25'N | 129°48'W | X X X X X X X X |
| 46204 | 51°14'N | 128°27'W | X X X X X X X X |
| 46205 | 54°10'N | 134°20'W | X X X X X X X X |
| 46206 | 48°50'N | 126°00'W | X X X X X X X X |
| 46207 | 50°31'N | 129°33'W | X X X X X X X X |
| 46208 | 52°18'N | 132°25'W | X X X X X X X X |

Moored Buoys (North-west Atlantic Ocean):

| WMO buoy Identifier | Argos Identifier | Position 29 April 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 44137 | 05579 | 41°14'N | 061°14'W | X X X X X X . X |
| 44139 | 03448 | 44°19'N | 057°21'W | X X X X X X . X |
| 44140 | 05576 | 42°44'N | 050°36'W | X . X X X . . X |
| 44141 | 05577 | 42°07'N | 061°12'W | X X X X X X . X |
| 44142 | 05578 | 42°30'N | 064°12'W | X X X X X X . X |

Moored Buoys (Great Lakes):

| WMO buoy Identifier | Position 29 April 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|
| 45132 | 42°28'N | 081°12'W | x x x x x x . x |
| 45135 | 43°48'N | 076°52'W | x x x x x x . x |
| 45136 | 48°32'N | 086°57'W | x x x x x x . x |
| 45137 | 45°20'N | 080°02'W | x x x x . . . x |
| 45139 | 43°16'N | 079°33'W | x x x x x x x x |

Drifting Buoys (North-east Pacific Ocean):

| WMO buoy Identifier | Argos Identifier | Position 28 April 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 46632 | 12511 | 43°52'N | 140°26'W | . x x . x . . . |
| 46681 | 07135 | 50°44'N | 153°51'W | . x x . x . . . |
| 46684 | 07137 | 43°56'N | 160°13'W | . x x . x . . . |
| 46687 | 07138 | 36°23'N | 132°17'W | . x x . x . . . |
| 46692 | 07139 | 42°15'N | 157°14'W | . . x . x . . . |
| 46693 | 07140 | 35°02'N | 141°02'W | . x x . x . . . |
| 46696 | 06267 | 39°11'N | 151°02'W | . x x . x . . . |
| 46703 | 06269 | 52°38'N | 133°41'W | . x x . x . . . |
| 46704 | 07128 | 46°55'N | 139°00'W | . x x . x . . . |
| 46705 | 07129 | 50°49'N | 141°51'W | . x x . x . . . |
| 46706 | 07130 | 41°58'N | 130°09'W | . x x . x . . . |
| 46707 | 07131 | 24°41'N | 146°47'W | . x x . x . . . |

Drifting Buoys (Arctic Icepack)):

| WMO buoy Identifier | Argos Identifier | Position 29 April 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 48523 | 01107 | 74°39'N | 135°58'W | . x x x . . . . |

United States of America

List of U.S.A. Ocean Data Acquisition System (ODAS) included in the May 1991 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 DRIBU code.

Legend

| Column | Observed or technical parameters |
|---|---|
| 1 | Wind direction and speed |
| 2 | Air temperature |
| 3 | Pressure |
| 4 | Pressure tendency |
| 5 | Sea-surface temperature |
| 6 | Wave period and height |
| 7 | Wave spectra |
| 8 | Drogued |

Moored Buoys:

| WMO buoy Identifier | Position 2-9 May 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 32302 | 18°00'S | 85°06'W | x | x | x | x | x | x | x |
| 41001** | 34°54'N | 72°54'W | x | x | x | x | x | x | x |
| 41002** | 32°18'N | 75°12'W | x | x | x | x | x | x | x |
| 41006** | 29°18'N | 77°24'W | * | * | * | * | * | * | * |
| 41008 | 30°42'N | 81°06'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 |
| 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 |
| 44004** | 38°30'N | 70°36'W | x | x | x | x | x | x | x |
| 44005** | 42°42'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 |
| 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 | x |
| 45001** | 48°00'N | 87°48'W | x | . | x | x | x | x | x |
| 45002** | 45°18'N | 86°24'W | * | 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°48'N | 87°06'W | 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°24'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°48'N | 137°42'W | * | * | * | * | * | * | * |
| 46010** | 46°12'N | 124°12'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 | x | x | x | x | x | x | x |

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

• Sensor/system failure

Moored Buoys (continued):

| WMO buoy Identifier | Position 2-9 May 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 46027** | 41°48'N | 124°24'W | X | X | X | X | X | X | X |
| 46028 | 35°48'N | 121°54'W | X | X | X | X | X | X | X |
| 46030 | 40°24'N | 124°30'W | X | X | X | X | * | X | X |
| 46035 | 57°00'N | 177°42'W | X | X | X | X | X | X | X |
| 46040 | 44°48'N | 124°18'W | X | X | X | X | X | X | X |
| 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 | X |
| 46045 | 33°48'N | 118°24'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°12'N | 160°48'W | X | X | X | X | X | X | X |
| 51004** | 17°30'N | 152°30'W | X | X | X | X | X | X | X |

Drifting Buoys:

| WMO buoy Identifier | Argos Identifier | Position 8-9 May 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14803 | 08844 | 40°S | 021°E | . | X | X | . | X | . | . | . |
| 14804 | 08845 | 25°S | 054°E | . | X | X | . | X | . | . | . |
| 16807 | 05133 | 50°S | 004°W | . | X | X | . | X | . | . | . |
| 17803 | 05571 | 40°S | 091°E | X | * | X | . | * | . | . | X |
| 17804 | 12300 | 37°S | 088°E | . | * | X | . | X | . | . | . |
| 17805 | 12304 | 31°S | 074°E | . | * | X | . | X | . | . | . |
| 17806 | 12306 | 40°S | 007°E | . | X | X | . | X | . | . | . |
| 17809 | 05125 | 43°S | 013°E | . | X | X | . | X | . | . | . |
| 17810 | 05126 | 41°S | 005°E | . | X | X | . | X | . | . | . |
| 17825 | 05129 | 45°S | 006°E | . | X | X | . | X | . | . | . |
| 33301 | 12310 | 56°S | 028°W | . | X | X | . | . | . | . | . |
| 33509 | 12307 | 43°S | 043°W | . | X | X | . | X | . | . | . |
| 33510 | 12308 | 47°S | 011°E | . | X | X | . | X | . | . | . |
| 33825 | 12301 | 55°S | 089°E | . | X | X | . | X | . | . | . |
| 33826 | 12296 | 60°S | 038°E | . | X | X | . | X | . | . | . |
| 33827 | 12297 | 49°S | 068°E | . | X | X | . | X | . | . | . |
| 33828 | 12298 | 46°S | 055°E | . | X | X | . | X | . | . | . |
| 33830 | 12305 | 43°S | 038°E | . | X | X | . | X | . | . | . |
| 54829 | 06762 | 40°S | 160°W | . | * | X | . | X | . | . | . |
| 54830 | 06763 | 42°S | 112°W | . | * | X | . | X | . | . | . |

* Sensor/system failure.

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

Drifting Buoys (continued):

| WMO buoy identifier | Argos identifier | Position 8-9 May 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 54831 | 06764 | 46°S | 108°W | . x x . x . . . |
| 54832 | 06585 | 41°S | 164°W | x x x . x . . x |
| 54833 | 06586 | 44°S | 144°W | x x x . x . . x |
| 54834 | 06583 | 37°S | 153°W | x x x . x . . x |
| 54835 | 06731 | 39°S | 156°W | . x x . x . . . |
| 54836 | 05128 | 35°S | 170°W | . x x . x . . . |
| 54837 | 05135 | 31°S | 158°W | . x x . x . . . |
| 54838 | 08823 | 45°S | 167°W | . x x . x . . . |
| 54839 | 12312 | 43°S | 161°W | . x x . x . . . |
| 54840 | 05120 | 52°S | 175°W | . x x . x . . . |
| 54842 | 05122 | 47°S | 169°W | . x x . x . . . |
| 54843 | 05134 | 49°S | 153°W | . x x . x . . . |
| 55802 | 08843 | 24°S | 050°E | . x x . x . . . |
| 55803 | 05136 | 59°S | 159°W | . x x . x . . . |
| 56827 | 09221 | 63°S | 168°E | . * x . * . . . |
| 56832 | 09219 | 09°S | 110°E | . x x . x . . . |

• Sensor/system failure

5. ARGOS service

5.1 ARGOS monthly status report

As at 5 May 1991 the Argos service was handling reports from 628 drifting buoys, 129 moored buoys, 2 balloons, 25 ships, 114 animal trackings, 400 fixed stations, 244 boats and 26 miscellaneous platforms. DRIBU reports from 78 drifting buoys and BATHY reports from 26 selected ships were transmitted to the RTH Paris and DRIBU reports from 242 drifting 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 | 56001 | 04873 |
| | 56501 | 02934 |
| | 56502 | 02936 |
| | 56503 | 08035 |
| | 56504 | 08036 |
| | 56505 | 08037 |
| | 56546 | 02951 |
| | 56547 | 04870 |
| | 56548 | 04871 |
| | 56549 | 04872 |
| | 9VBZ* | 09195 |
| | 9VUU* | 09190 |
| | 9VWM* | 09187 |
| | GYSA* | 09189 |
| | GYSE* | 09199 |
| | S6FK* | 09193 |
| | VJBQ* | 09196 |
| | VJDP* | 09198 |

• PTT's transmitting at irregular intervals

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Canada | 21551 | 01314 |
| | 21552 | 01315 |
| | 21553 | 01316 |
| | 44635 | 08666 |
| | 44754 | 01055 |
| | 44755 | 03319 |
| | 44756 | 03320 |
| | 44757 | 04762 |
| | 44758 | 08648 |
| | 46644 | 01198 |
| | 46645 | 01199 |
| | 46646 | 01310 |
| | 46649 | 01313 |
| | 46650 | 01424 |
| | 46655 | 01429 |
| | 46657 | 08093 |
| | 47531 | 05218 |
| | 47542 | 05217 |
| | 47559 | 04004 |
| France | 13531 | 05832 |
| | 44610 | 10102 |
| | 62513 | 05829 |
| | 62516 | 05833 |
| | 62518 | 10104 |
| | 64516 | 05796 |
| | A3BZ* | 04709 |
| | C6HL* | 04705 |
| | DIDA* | 08742 |
| | ELEH* | 08746 |
| | ELIS* | 04716 |
| | FITA* | 04723 |
| | FNCZ* | 08744 |
| | FNGB* | 04733 |
| | FNGS* | 04707 |
| | FNJT* | 04722 |
| | FNOM* | 04701 |
| | FNQB* | 04726 |
| | FNZP* | 04719 |
| | FNZQ* | 04703 |
| | FPYO* | 04729 |
| | GTIA* | 04712 |
| | HPEW* | 04720 |
| | ZDBE* | 04718 |

* PTT's transmitting at irregular intervals

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Germany | 71524 | 03315 |
| | 71543 | 08055 |
| | 71544 | 08062 |
| | 71545 | 09353 |
| | 71546 | 09354 |
| | 71548 | 09360 |
| Japan | 52060 | 08718 |
| | 62551+ | 12001 |
| | 62552+ | 12020 |
| | 62553+ | 12025 |
| | 62554+ | 12035 |
| | 62555+ | 12039 |
| | 62556+ | 12042 |
| | 62557+ | 12048 |
| | 62558+ | 12056 |
| | 62560+ | 12002 |
| | 62561+ | 12018 |
| | 62563+ | 12031 |
| | 62564+ | 12045 |
| | 62565+ | 12047 |
| | 62566+ | 12050 |
| | 62567+ | 12004 |
| | 62568+ | 12005 |
| | 62570+ | 12022 |
| | 62571+ | 12024 |
| | 62572+ | 12030 |
| | 62573+ | 12033 |
| | 62574+ | 12037 |
| | 62576+ | 12040 |
| | 62577+ | 12046 |
| | 62578+ | 12049 |
| | 62579+ | 12053 |
| | 62583+ | 12007 |
| | 62584+ | 12023 |
| | 62585+ | 12027 |
| | 62586+ | 12029 |
| Netherlands | 44613 | 04179 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| New Zealand | 55579 | 06435 |
| | 55582 | 07175 |
| | 55583 | 07179 |
| | 55584 | 07178 |
| | 55585 | 07177 |
| | 55586 | 07176 |
| Norway | 17001 | 01591 |
| | 17003 | 01758 |
| | 62694 | 03670 |
| | 63002 | 09407 |
| | 65591 | 06666 |
| | 74001 | 09405 |
| South Africa** | 17524 | 09099 |
| | 17527 | 09087 |
| | 17528 | 08260 |
| | 17529 | 09088 |
| | 17533 | 09091 |
| | 17534 | 14055 |
| | 17535 | 14056 |
| | 33021 | 09085 |
| United Kingdom | 62608 | 03919 |
| | 62803 | 06299 |
| | 62804 | 06305 |
| | 62805 | 06285 |
| | 64043 | 06271 |
| United States of America | 14803 | 08844 |
| | 14804 | 08845 |
| | 16807 | 05133 |
| | 16808 | 05127 |
| | 17803+ | 05571 |
| | 17804 | 12300 |
| | 17805 | 12304 |
| | 17806 | 12306 |
| | 17809 | 05125 |
| | 17810 | 05126 |
| | 17825 | 05129 |
| | 25537 | 12805 |

\+ 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.

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 31502 | 09844 |
| | 32316+ | 06370 |
| | 32317+ | 06519 |
| | 32318+ | 06371 |
| | 32512 | 11920 |
| | 32513 | 11910 |
| | 32514 | 10836 |
| | 32515 | 11898 |
| | 32516 | 11927 |
| | 32517 | 15093 |
| | 32518 | 15091 |
| | 32519 | 11905 |
| | 32522 | 10808 |
| | 32523 | 10809 |
| | 32525 | 11192 |
| | 32528+ | 10820 |
| | 32529 | 11194 |
| | 32531 | 10812 |
| | 32532 | 11897 |
| | 32537 | 10839 |
| | 32538 | 11172 |
| | 32540 | 11904 |
| | 32543 | 11015 |
| | 32544 | 11908 |
| | 32545 | 10849 |
| | 32546 | 11160 |
| | 32549 | 11163 |
| | 32550 | 11894 |
| | 32552 | 11195 |
| | 32553 | 10841 |
| | 32554 | 10840 |
| | 32558 | 09276 |
| | 32560 | 11572 |
| | 33301 | 12310 |
| | 33509 | 12307 |
| | 33510 | 12308 |
| | 32825 | 12301 |
| | 33826 | 12296 |
| | 33827 | 12297 |
| | 33828 | 12298 |
| | 33830 | 12305 |
| | 41513 | 09853 |
| | 42525+ | 07494 |
| | 43501 | 11919 |
| | 43502 | 11168 |
| | 43503 | 11926 |
| | 43504 | 11198 |
| | 43508 | 11171 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 43510 | 11628 |
| | 44507 | 04566 |
| | 44508 | 09171 |
| | 44509 | 09165 |
| | 44510+ | 09176 |
| | 44518 | 09841 |
| | 44520 | 09856 |
| | 44523 | 12772 |
| | 44530 | 12770 |
| | 44534 | 12771 |
| | 44535 | 12732 |
| | 44536 | 12730 |
| | 44537 | 12731 |
| | 44538 | 12762 |
| | 44539 | 12733 |
| | 44541 | 12763 |
| | 44542 | 12764 |
| | 44543 | 12765 |
| | 44544 | 12766 |
| | 44545 | 12767 |
| | 44551 | 12453 |
| | 46510 | 12672 |
| | 46512 | 12691 |
| | 47601 | 12785 |
| | 47603+ | 12809 |
| | 48518 | 12800 |
| | 48519 | 12783 |
| | 48520 | 12801 |
| | 48554 | 12802 |
| | 48555 | 12806 |
| | 48556+ | 12807 |
| | 48557 | 12808 |
| | 51006+ | 06521 |
| | 51007+ | 06475 |
| | 51008+ | 06518 |
| | 51014+ | 06517 |
| | 51510 | 11671 |
| | 51511 | 06883 |
| | 51512 | 15089 |
| | 51513 | 11663 |
| | 51514 | 11675 |
| | 51516 | 09274 |
| | 51517 | 11676 |
| | 51518 | 15077 |
| | 51519 | 11646 |
| | 51520 | 11653 |
| | 51801 | 11197 |
| | 51802 | 11915 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51803 | 11912 |
| | 51804 | 15092 |
| | 51806 | 09279 |
| | 51807 | 15094 |
| | 51808 | 15085 |
| | 51809 | 11576 |
| | 51810 | 15087 |
| | 51811 | 11644 |
| | 51812 | 15079 |
| | 51813 | 11569 |
| | 51814 | 11682 |
| | 51816 | 11620 |
| | 51817 | 11655 |
| | 51818 | 11630 |
| | 51819 | 11645 |
| | 51820 | 11687 |
| | 51821 | 11690 |
| | 51822 | 11870 |
| | 51823 | 15095 |
| | 51824 | 11685 |
| | 51825 | 11686 |
| | 51826 | 11578 |
| | 51827 | 11688 |
| | 51828 | 11695 |
| | 51829 | 11202 |
| | 51830 | 15088 |
| | 51831 | 11689 |
| | 51832 | 11691 |
| | 51833 | 11872 |
| | 51834 | 11170 |
| | 51835 | 09271 |
| | 51836 | 09270 |
| | 51837 | 15096 |
| | 51839 | 11700 |
| | 51840 | 15090 |
| | 51841 | 15098 |
| | 51842 | 11702 |
| | 51843 | 11703 |
| | 51844 | 09275 |
| | 51846 | 11692 |
| | 51847 | 11706 |
| | 51849 | 15097 |
| | 51850 | 11662 |
| | 51853 | 11694 |
| | 51855 | 11705 |
| | 51856 | 15082 |
| | 51857 | 11667 |
| | 51858 | 11668 |

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51861 | 15099 |
| | 51862 | 11670 |
| | 51865 | 11623 |
| | 51866 | 11664 |
| | 51867 | 11666 |
| | 51868 | 11669 |
| | 51869 | 11674 |
| | 51870 | 11679 |
| | 51871 | 11693 |
| | 51872 | 11696 |
| | 51873 | 11699 |
| | 51874 | 11701 |
| | 51875 | 11704 |
| | 51876 | 11683 |
| | 51877 | 15073 |
| | 51878 | 15072 |
| | 51879 | 15074 |
| | 51880 | 15078 |
| | 51881 | 15080 |
| | 51882 | 15081 |
| | 51883 | 15083 |
| | 51884 | 15084 |
| | 51885 | 15086 |
| | 52001+ | 06799 |
| | 52003+ | 12522 |
| | 52004+ | 12523 |
| | 52006+ | 12525 |
| | 52051 | 09272 |
| | 52052 | 09278 |
| | 52301+ | 06514 |
| | 52528+ | 12499 |
| | 52813 | 10835 |
| | 52827 | 10823 |
| | 52847+ | 11191 |
| | 52854 | 11626 |
| | 52866 | 11887 |
| | 52867 | 11893 |
| | 52868 | 11876 |
| | 52872 | 11890 |
| | 52875 | 11896 |
| | 52877 | 11883 |
| | 52878 | 11885 |
| | 53501 | 11255 |
| | 53502 | 12498 |
| | 53503 | 12480 |
| | 53809 | 11886 |
| | 54829 | 06762 |
| | 54830 | 06763 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 54831 | 06764 |
| | 54832+ | 06585 |
| | 54833+ | 06586 |
| | 54834+ | 06583 |
| | 54835 | 06731 |
| | 54836 | 05128 |
| | 54837 | 05135 |
| | 54838 | 08823 |
| | 54839 | 12312 |
| | 54840 | 05120 |
| | 54841 | 05121 |
| | 54842 | 05122 |
| | 54843 | 05134 |
| | 55802 | 08843 |
| | 55803 | 05136 |
| | 56827 | 09221 |
| | 56832 | 09219 |
| | 64581 | 12804 |
| | 65503+ | 12803 |

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

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

In view of the difficulties experienced at present in identifying non-implemented observing stations or implemented stations which are closed or suspended for a certain period, or stations making observations but not reaching their NMCs, the ninth session of the CBS Advisory Working Group recommended that a special table be added to the WWW monthly operational letter to serve as feed-back from Members to the Secretariat on any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations.

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

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

(explanatory notes overleaf)

Global Exchange/Regional Exchange (delete as appropriate) Country: _____

| Station index number | Bulletin identification TTAAii CCCC | Implementation of observing programme 00 03 06 09 12 15 18 21 | Alternate observing station | Remarks |
|---|---|---|---|---|
| 1. SYNOP | | | | |
| 2. TEMP | | | | |
| 3. PILOT | | | | |

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

1. Separate tables should be prepared for global exchange and regional exchange respectively. These tables should contain information concerning any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations given in Attachment I-4 of the Manual on the GTS, Volume I for global exchange and, as applicable, Attachments AF-I, AI-1, SA-1, NA-1, PS-1 and EU-1 of the Manual on the GTS, Volume II for regional exchange.

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

   (a) In the column "Station index number", the index number (IIiii) of each station should be entered in case of any changes in the observing programmes of the stations;

   (b) In the column "Bulletin identification", the TTAAii CCCC of the abbreviated heading of the meteorological bulletins which contains reports from the station should be inserted;

   (c) In the column "Implementation of observing programme", "X" for implementation and "-" for non-implementation should be inserted as appropriate. In order to easily identify changes in the programme, this should be marked in red;

   (d) In the column "Alternate observing station", the index number (IIii) of an alternate observing station should be inserted in case another station is available with a view to filling gaps which are caused by suspension of observing programmes of the original station;

   (e) The required information concerning the observing programme of the alternate station should be inserted in the next horizontal line of the original station;

   (f) In the column "Remarks", reasons of temporary suspension of observing programmes and an expected date of resumption of the programmes should be given as far as possible. Non-standard collection and/or distribution times should also be included.

3. These tables should be sent to the Secretariat before the 1st of the month for inclusion of the changes in the monthly operational letter, as appropriate.

# Annex III - Global Telecommunication System

Date: May 1991

## A. GTS regulatory or guidance material

### 3. Amendments to the Manual on the Global Telecommunication System

Recommendations adopted by CBS Ext. (90)

At its extraordinary session (London, 24 September - 5 October 1990), CBS adopted three recommendations for amendment to the Manual on the GTS. Volume I, Parts I, II and III respectively.

The recommendation relating to Part I, with effect from 1 September 1991, includes a revision of paragraphs 1 to 3. It also includes provisions for the global exchange of Parts A, B, C and D of TEMP, PILOT, TEMP SHIP, PILOT SHIP, TEMP MOBIL and PILOT MOBIL, as well as new procedures for the annual global monitoring (see also WMO letter W/SY/T.9 (PR. 4569) dated 15 January 1991).

The recommendations relating to Part II and III, with effect from 1 November 1991, include provisions to delete the groups CLLLL and CFFFF from the starting line of the meteorological messages. They also include amendments to the allocation of abbreviated headings, in particular to the tables A, B1, B2, C3, C5 and D, and provisions to add new tables relating to messages in bit-oriented code forms. The other amendments are related to the introduction of virtual calls (VC) services in the network layer and of a limit of length of 15000 octets for messages in bit-oriented code forms,.to the detection and cancellation of duplicated messages, to the use of groups GGgg and ii of the abbreviated heading, and to the use of CCITT group 4 standard for coded digital fax.

The three recommendations were approved by the forty-third session of the Executive Council (Geneva, May 1991).

## C. Information on the operation of the GTS

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

#### 1.3 Changes to bulletins

Notification from the United Kingdom that with effect from 1200 UTC 31 May 1991, station 03840 will replace 03839 in bulletins SMUK01 EGRR, SIUK21 EGRR, SNUK21 EGRR.

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

#### 2.3 Changes in schedules/technical specifications

I-iii Dakar radio-facsimile broadcast effective 1 March 1991 delete CVY 41 (0000-2400) 7587,5 kHz 5 kW

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

**Date: May 1991**

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

AII-I Dakar radio-facsimile broadcast effective 1 March 1991 delete CVY 41 (0000-2400) 7587,5 kHz 5 kW

ORGANISATION MÉTÉOROLOGIQUE MONDIALE

WORLD METEOROLOGICAL ORGANIZATION

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Télégrammes: METEOMOND GENÈVE
Télex: 41 41 99 OMM CH
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CH - 1211 Genève 2

W/OIS

Annexes: 4

GENEVA, 30 June1991

Subject : Monthly letter on the operation of the World Weather Watch (WWW) and Marine Meteorological Services (MMS) June 1991

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

Dear Sir/Madam,

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

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

Annex I - Global Observing System

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

1. Publication No. 9, Volume A - Stations

1.2 Deleted stations
1.3 Changes to existing stations

4. Automatic marine stations

5. ARGOS

5.1 ARGOS monthly status report

To: Permanent Representatives (or Directors of Meteorological or Hydro-meteorological Services) of Members of WMO (PR-4633)
Directors of Meteorological Services of non-Member countries (MC-2448)
Presidents and Vice-Presidents of Regional Associations (P.RA-1271)
Presidents and Vice-Presidents of Technical Commissions (P.TC-1389)
Chairmen of CBS Working Groups
Secretary-General of ICAO
Director-General of IATA
Secretary of IOC
Director-General of ASECNA
Director of ECMWF

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

D. Information on operational status of space sub-system

Annex III - Global Telecommunication System

A. GTS regulatory or guidance material

4. Regional telecommunications plans

C. Information on the operation of the GTS

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

1.3 Changes to bulletins

Annex IV - Codes

B. Manual on codes

1. Global practices

1.3 Changes to codes

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

C. Information on the operation of Marine Meteorological Services

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

4. Collection and dissemination of marine information

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 6, "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,

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

# Annex I - Global Observing System

Date: June 1991

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

1. Publication No. 9, Volume A - Stations

1.2 Deleted stations

04350 APUTITEQ
04381 IKERMIUARSSUK

1.3 Changes to existing stations

06151 OMO . . X X X X X . . . . . /

United States of America

List of U.S.A. Ocean Data Acquisition System (ODAS) included in the June 1991 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 DRIBU code.

Legend

| Column | Observed or technical parameters |
|---|---|
| 1 | Wind direction and speed |
| 2 | Air temperature |
| 3 | Pressure |
| 4 | Pressure tendency |
| 5 | Sea-surface temperature |
| 6 | Wave period and height |
| 7 | Wave spectra |
| 8 | Drogued |

Moored Buoys:

| WMO buoy Identifier | Position 30 May - 6 June 1991 | | Observed or technical parameters 1 2 3 4 5 6 7 |
|---|---|---|---|
| 32302 | 18°00'S | 85°06'W | X X X X X X X |
| 41001** | 34°54'N | 72°54'W | X X X X X X X |
| 41002** | 32°18'N | 75°12'W | X X X X X X X |
| 41006** | 29°18'N | 77°24'W | * * * * * * * |

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

* Sensor/system failure

Moored Buoys (continued):

| WMO buoy Identifier | Position 30 May - 6 June 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 41008 | 30°42'N | 81°06'W | X | X | X | X | X | X | X |
| 41009 | 28°30'N | 80°12'W | * | * | * | * | * | * | * |
| 41010 | 28°54'N | 78°30'W | X | X | 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 |
| 44004** | 38°30'N | 70°36'W | * | * | * | * | * | * | * |
| 44005** | 42°42'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 |
| 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 | 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°48'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°24'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°48'N | 137°42'W | * | * | * | * | * | * | * |
| 46010** | 46°12'N | 124°12'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 | X | X | X | X | X | X | X |
| 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 | X |
| 46028 | 35°48'N | 121°54'W | X | X | X | X | X | X | X |
| 46030 | 40°24'N | 124°30'W | X | X | X | X | * | X | X |

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

* Sensor/system failure

Moored Buoys (continued):

| WMO buoy Identifier | Position 30 May - 6 June 1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 46035 | 57°00'N | 177°42'W | X | X | X | X | X | X | X |
| 46040 | 44°48'N | 124°18'W | X | X | X | X | X | X | X |
| 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 | X |
| 46045 | 33°48'N | 118°24'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°12'N | 160°48'W | X | X | X | X | X | X | X |
| 51004** | 17°30'N | 152°30'W | X | X | X | X | X | X | X |

Drifting Buoys:

| WMO buoy Identifier | Argos Identifier | Position 5/6 June1991 | | Observed or technical parameters 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14803 | 08844 | 36°S | 031°E | . | X | X | . | X | . | . | . |
| 14804 | 08845 | 24°S | 054°E | . | X | X | . | X | . | . | . |
| 16807 | 05133 | 52°S | 005°W | . | X | X | . | X | . | . | . |
| 17803 | 05571 | 37°S | 164°E | X | * | X | . | * | . | . | X |
| 17804 | 12300 | 37°S | 088°E | . | * | X | . | X | . | . | . |
| 17805 | 12304 | 28°S | 074°E | . | * | X | . | X | . | . | . |
| 17806 | 12306 | 39°S | 010°W | . | X | X | . | X | . | . | . |
| 17809 | 05125 | 44°S | 015°W | . | X | X | . | X | . | . | . |
| 17810 | 05126 | 40°S | 009°E | . | X | X | . | X | . | . | . |
| 17825 | 05129 | 46°S | 012°E | . | X | X | . | X | . | . | . |
| 33301 | 12310 | 56°S | 028°W | . | X | X | . | . | . | . | . |
| 33509 | 12307 | 43°S | 037°W | . | X | X | . | X | . | . | . |
| 33510 | 12308 | 48°S | 019°E | . | X | X | . | X | . | . | . |
| 33825 | 12301 | 57°S | 098°E | . | X | X | . | X | . | . | . |
| 33826 | 12296 | 60°S | 045°E | . | X | X | . | X | . | . | . |
| 33827 | 12297 | 47°S | 079°E | . | X | X | . | X | . | . | . |
| 33828 | 12298 | 45°S | 061°E | . | X | X | . | X | . | . | . |
| 33830 | 12305 | 42°S | 043°E | . | X | X | . | . | . | . | . |
| 54829 | 06762 | 39°S | 157°W | . | * | X | . | X | . | . | . |
| 54830 | 06763 | 41°S | 112°W | . | * | X | . | X | . | . | . |
| 54831 | 06764 | 44°S | 109°W | . | X | X | . | X | . | . | . |
| 54832 | 06585 | 40°S | 162°W | X | X | X | . | X | . | . | X |
| 54833 | 06586 | 45°S | 143°W | X | X | X | . | . | . | . | X |
| 54834 | 06583 | 38°S | 153°W | X | X | X | . | X | . | . | X |
| 54835 | 06731 | 38°S | 155°W | . | X | X | . | X | . | . | . |
| 54836 | 05128 | 33°S | 168°W | . | X | X | . | X | . | . | . |
| 54837 | 05135 | 30°S | 155°W | . | X | X | . | X | . | . | . |
| 54838 | 08823 | 43°S | 163°W | . | X | X | . | X | . | . | . |

* Sensor/system failure.

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

Drifting Buoys (continued):

| WMO buoy Identifier | Argos Identifier | Position 5/6 June1991 | | Observed or technical parameters 1 2 3 4 5 6 7 8 |
|---|---|---|---|---|
| 54839 | 12312 | 42°S | 157°W | . X X . X . . . |
| 54840 | 05120 | 51°S | 170°W | . X X . X . . . |
| 54842 | 05122 | 46°S | 164°W | . X X . X . . . |
| 54843 | 05134 | 50°S | 151°W | . X X . X . . . |
| 55802 | 08843 | 26°S | 049°E | . X X . X . . . |
| 55803 | 05136 | 59°S | 155°W | . X X . X . . . |
| 56827 | 09221 | 62°S | 179°E | . * X . * . . . |
| 56832 | 09219 | 11°S | 100°E | . X X . X . . . |
| 56834 | 09218 | 19°S | 093°E | . X X . X . . . |

• Sensor/system failure

## 5. ARGOS service

### 5.1 ARGOS monthly status report

As at 5 June 1991 the Argos service was handling reports from 637 drifting buoys, 142 moored buoys, 5 balloons, 25 ships, 146 animal trackings, 399 fixed stations, 435 boats and 28 miscellaneous platforms. DRIBU reports from 76 drifting buoys and BATHY reports from 25 selected ships were transmitted to the RTH Paris and DRIBU reports from 237 drifting 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 | 56001 | 04873 |
| | 56501 | 02934 |
| | 56502 | 02936 |
| | 56503 | 08035 |
| | 56504 | 08036 |
| | 56505 | 08037 |
| | 56506 | 04875 |
| | 56546 | 02951 |
| | 56547 | 04870 |
| | 56548 | 04871 |
| | 56549 | 04872 |
| | 62590+ | 12054 |
| | 9VBZ* | 09195 |
| | 9VUU* | 09190 |
| | 9VWM* | 09187 |
| | VJBQ* | 09196 |
| | VJDP* | 09198 |
| | S6FK* | 09193 |
| | GYRW* | 09197 |
| | VJDI* | 09198 |

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

• PTT's transmitting at irregular intervals

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Canada | 21551 | 01314 |
| | 21552 | 01315 |
| | 21553 | 01316 |
| | 44635 | 08666 |
| | 44755 | 03319 |
| | 44756 | 03320 |
| | 44758 | 08648 |
| | 46644 | 01198 |
| | 46645 | 01199 |
| | 46646 | 01310 |
| | 46649 | 01313 |
| | 46650 | 01424 |
| | 46655 | 01429 |
| | 46656 | 08090 |
| | 47542 | 05217 |
| | 47559 | 04004 |
| France | 13531 | 05832 |
| | 44610 | 10102 |
| | 62513 | 05829 |
| | 62514 | 05831 |
| | 62516 | 05833 |
| | 62518 | 10104 |
| | 62519 | 10114 |
| | 64516 | 05796 |
| | C6HL* | 04705 |
| | DIDA* | 08742 |
| | ELEH* | 08746 |
| | ELIS* | 04716 |
| | FNCZ* | 08744 |
| | FNGB* | 04733 |
| | FNGS* | 04707 |
| | FNJT* | 04722 |
| | FNOM* | 04701 |
| | FNQB* | 04726 |
| | FNZO* | 04717 |
| | FNZQ* | 04703 |
| | FPYO* | 04729 |
| | GTIA* | 04712 |
| | HPEW* | 04720 |
| | ZDBE* | 04718 |
| Germany | 71524 | 03315 |
| | 71543 | 08055 |
| | 71544 | 08062 |
| | 71545 | 09353 |
| | 71546 | 09354 |
| | 71548 | 09360 |

* PTT's transmitting at irregular intervals

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| Netherlands | 44613 | 04179 |
| New Zealand | 55579 | 06435 |
| | 55582 | 07175 |
| | 55583 | 07179 |
| | 55584 | 07178 |
| | 55585 | 07177 |
| | 55586 | 07176 |
| Norway | 17001 | 01591 |
| | 17003 | 01758 |
| | 62694 | 03670 |
| | 63002 | 09407 |
| | 65591 | 06666 |
| | 74001 | 09405 |
| South Africa** | 17524 | 09099 |
| | 17527 | 09087 |
| | 17528 | 08260 |
| | 17529 | 09088 |
| | 17533 | 09091 |
| | 17534 | 14055 |
| | 17535 | 14056 |
| | 17537 | 14057 |
| | 33021 | 09085 |
| United Kingdom | 62608+ | 03919 |
| | 62803 | 06299 |
| | 62804 | 06305 |
| | 62805 | 06285 |
| | 64043 | 06271 |
| United States of America | 14803 | 08844 |
| | 14804 | 08845 |
| | 16807 | 05133 |
| | 16808 | 05127 |

** 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.

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 17803+ | 05571 |
| | 17804 | 12300 |
| | 17805 | 12304 |
| | 17806 | 12306 |
| | 17809 | 05125 |
| | 17810 | 05126 |
| | 17825 | 05129 |
| | 23503 | 14285 |
| | 25537 | 12805 |
| | 31502 | 09844 |
| | 32512 | 11920 |
| | 32513 | 11917 |
| | 32514 | 10836 |
| | 32515 | 11898 |
| | 32516 | 11927 |
| | 32517 | 15093 |
| | 32518 | 15091 |
| | 32519 | 11905 |
| | 32522 | 10808 |
| | 32523 | 10809 |
| | 32524 | 11921 |
| | 32525 | 11192 |
| | 32526 | 11923 |
| | 32529 | 11194 |
| | 32531 | 10812 |
| | 32532 | 11897 |
| | 32537 | 10839 |
| | 32538 | 11172 |
| | 32540 | 11904 |
| | 32543 | 11015 |
| | 32544 | 11908 |
| | 32545 | 10849 |
| | 32546 | 11160 |
| | 32549 | 11163 |
| | 32550 | 11894 |
| | 32552 | 11195 |
| | 32553+ | 10841 |
| | 32554 | 10840 |
| | 32558 | 09276 |
| | 32560 | 11572 |
| | 33301 | 12310 |
| | 33509 | 12307 |
| | 33510 | 12308 |
| | 33825 | 12301 |
| | 33826 | 12296 |
| | 33827 | 12297 |
| | 33828 | 12298 |
| | 33830 | 12305 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 41501 | 11752 |
| | 41502 | 11753 |
| | 41506 | 14294 |
| | 41512+ | 09857 |
| | 41521 | 14296 |
| | 43501 | 11919 |
| | 43502 | 11168 |
| | 43503 | 11926 |
| | 43504 | 11198 |
| | 43508 | 11171 |
| | 43510 | 11628 |
| | 44507 | 04566 |
| | 44508 | 09171 |
| | 44509 | 09165 |
| | 44510 | 09176 |
| | 44511 | 09177 |
| | 44518+ | 09841 |
| | 44520 | 09856 |
| | 44523 | 12772 |
| | 44530 | 12737 |
| | 44534 | 12771 |
| | 44535 | 12732 |
| | 44536 | 12730 |
| | 44537 | 12731 |
| | 44538 | 12762 |
| | 44541 | 12734 |
| | 44542 | 12735 |
| | 44543 | 12736 |
| | 44544 | 12766 |
| | 44545 | 12767 |
| | 44551 | 12453 |
| | 46510 | 12672 |
| | 47601 | 12785 |
| | 48518 | 12800 |
| | 48519 | 12783 |
| | 48520 | 12801 |
| | 48554 | 12802 |
| | 48555 | 12806 |
| | 48557 | 12808 |
| | 51011+ | 06476 |
| | 51014+ | 06517 |
| | 51510 | 11671 |
| | 51511 | 06883 |
| | 51512 | 15089 |
| | 51513 | 11663 |
| | 51514 | 11675 |
| | 51515 | 14432 |
| | 51516 | 09274 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51517 | 11676 |
| | 51518 | 15077 |
| | 51519 | 11646 |
| | 51520 | 11653 |
| | 51801 | 14433 |
| | 51802 | 11915 |
| | 51803 | 11912 |
| | 51804 | 14434 |
| | 51806 | 09279 |
| | 51807 | 15094 |
| | 51808 | 15085 |
| | 51809 | 14435 |
| | 51810 | 15087 |
| | 51811 | 11644 |
| | 51812 | 15079 |
| | 51813 | 11924 |
| | 51814 | 11682 |
| | 51816 | 11620 |
| | 51817 | 11655 |
| | 51819 | 11645 |
| | 51820 | 11687 |
| | 51821 | 11690 |
| | 51822 | 11870 |
| | 51823 | 15095 |
| | 51824 | 11685 |
| | 51825 | 11686 |
| | 51826 | 11578 |
| | 51827 | 11688 |
| | 51828 | 11695 |
| | 51829 | 11202 |
| | 51830 | 15088 |
| | 51831 | 11689 |
| | 51832 | 11691 |
| | 51833 | 11872 |
| | 51834+ | 11170 |
| | 51835 | 09271 |
| | 51836 | 09270 |
| | 51837 | 15096 |
| | 51839 | 11700 |
| | 51840 | 15090 |
| | 51841 | 15098 |
| | 51842 | 11702 |
| | 51843 | 11703 |
| | 51844 | 09275 |
| | 51845 | 09273 |
| | 51846 | 11692 |
| | 51847 | 11706 |
| | 51849 | 15097 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 51853 | 11694 |
| | 51855 | 11705 |
| | 51856 | 15082 |
| | 51857 | 11667 |
| | 51858 | 11668 |
| | 51861 | 15099 |
| | 51862 | 11670 |
| | 51865 | 11623 |
| | 51867+ | 11666 |
| | 51868 | 11669 |
| | 51869 | 11674 |
| | 51870 | 11679 |
| | 51871 | 11693 |
| | 51872 | 11696 |
| | 51873 | 11699 |
| | 51874 | 11701 |
| | 51875 | 11704 |
| | 51876 | 11683 |
| | 51877 | 15073 |
| | 51878 | 15072 |
| | 51879 | 15074 |
| | 51880 | 15078 |
| | 51881 | 15080 |
| | 51882 | 15081 |
| | 51883 | 15083 |
| | 51884 | 15084 |
| | 51885 | 15086 |
| | 52001+ | 06799 |
| | 52002+ | 06799 |
| | 52003+ | 12522 |
| | 52004+ | 12523 |
| | 52006+ | 12525 |
| | 52051 | 09272 |
| | 52052 | 09278 |
| | 52301+ | 06381 |
| | 52813 | 10835 |
| | 52827 | 10823 |
| | 52854 | 11626 |
| | 52866 | 11887 |
| | 52867 | 11893 |
| | 52868 | 11876 |
| | 52872 | 11890 |
| | 52877 | 11883 |
| | 53501 | 11255 |
| | 53502 | 12498 |
| | 53503 | 12480 |
| | 53809 | 11886 |
| | 54829 | 06762 |

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

| Operating country | WMO identifier/call sign | Argos identifier |
|---|---|---|
| United States of America (continued) | 54830 | 06763 |
| | 54831 | 06764 |
| | 54832+ | 06585 |
| | 54833+ | 06586 |
| | 54834+ | 06583 |
| | 54835 | 06731 |
| | 54836 | 05128 |
| | 54837 | 05135 |
| | 54838 | 08823 |
| | 54839 | 12312 |
| | 54840 | 05120 |
| | 54841 | 05121 |
| | 54842 | 05122 |
| | 54843 | 05134 |
| | 55802 | 08843 |
| | 55803 | 05136 |
| | 56827 | 09221 |
| | 56832 | 09219 |
| | 62672 | 09859 |
| | 62673 | 12726 |
| | 64581 | 12804 |
| | 64587 | 14314 |
| | 64592 | 14283 |
| | 64593 | 14295 |
| | 64594 | 14313 |
| | 64595 | 14328 |

ATLAS buoys

| WMO identifier/call sign | Argos identifier |
|---|---|
| 32315 | 06380 |
| 32316 | 06370 |
| 32317 | 06519 |
| 32318 | 06371 |
| 51006 | 06798 |
| 51007 | 06475 |
| 51008 | 06518 |
| 51009 | 06461 |
| 51010 | 06375 |
| 51011 | 06476 |
| 51014 | 06521 |
| 52001 | 06799 |
| 52002 | 06795 |
| 52003 | 12522 |
| 52004 | 06515 |
| 52006 | 06796 |
| 52301 | 06514 |

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

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

In view of the difficulties experienced at present in identifying non-implemented observing stations or implemented stations which are closed or suspended for a certain period, or stations making observations but not reaching their NMCs, the ninth session of the CBS Advisory Working Group recommended that a special table be added to the WWW monthly operational letter to serve as feed-back from Members to the Secretariat on any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations.

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

D. Information on operational status of space-based sub-system

GOES Status Report

GOES-7:

VAS operations, mode AAA, with MSI at 01 and 31 minutes past each hour with the following comment(s) exception(s):

1. MSI at 1820 UTC each Wednesday cancelled for visible channel calibration.
2. D-S at 1222 UTC each Sunday and Thursday cancelled for torque management.

WEFAX broadcasts: simultaneous, see operational message broadcast at 1055 UTC for schedule.

Status of NOAA polar orbiting satellites (updated 01 May 1991)

NOAA-9: (Stand-by). Launched 12 December 1984, afternoon ascending, AVHRR (HRPT, APT), SSU, DCS, SBUV, SAR.

NOAA-10: (Operational). Launched 17 September 1986, morning descending, AVHRR (HRPT, APT), DCS, MSU, SAR, SEM.

NOAA-11: (Operational). Launched 24 September 1986, afternoon ascending, AVHRR (HRPT, APT), SSU, DCS, SBUV, SAR.

| | HRPT | APT | BCN |
|---|---|---|---|
| NOAA-9 | 1707(HSB) | 137.62(VTX2) | 137.77(BTX2) |
| NOAA-10 | 1698(LSB) | 137.50(VTX1) | 136.77(BTX1) |
| NOAA-11 | 1707(HSB) | 137.62(VTX2) | 137.77(BTX2) |

NOAA-D: Spacecraft (now NOAA-12) was successfully launched from Vandeenberg A.F.B., California on 14 May 1991. Official lift-off time was 15:52:00:0357 UTC.

NOAA-11: Spacecraft is expected to replace the NOAA-10 spacecraft as the operational morning descending spacecraft on or about 1 July 1991.

Status of U.S.S.R. satellites

METEOR 3-4 was launched on 24 April 1991 and began transmitting visible mode APT imagery almost immediately. It can be heard during early afternoon north to sout passes on 137.300 mHz. METEOR 3-3 also transmits on 137.00 mHz with visible mode imagery during daytime passes and IR imagery during night time passes.

METEOR 2-20 was switched off recently following the loss of the synchronizing pulses from the scan lines.

METEOR 2-19 has been switched back on and is transmitting on 137.850 mHz.

Status of EUMETSAT satellites

METEOSAT-4 remains the operational satellite at the nominal position for the time being. The rectification anomaly affecting METEOSAT-5 imagery is being investigated.

METEOSAT-3 is being slowly moved (currently around 17°W) to take up a position at 50°W for Atlantic Data Coverage (imagery expected from this satellite on 1 August 1991)

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

(explanatory notes overleaf)

Global Exchange/Regional Exchange (delete as appropriate) Country: _____

| Station index number | Bulletin identification TTAAii CCCC | Implementation of observing programme 00 03 06 09 12 15 18 21 | Alternate observing station | Remarks |
|---|---|---|---|---|
| 1. SYNOP | | | | |
| 2. TEMP | | | | |
| 3. PILOT | | | | |

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

1. Separate tables should be prepared for global exchange and regional exchange respectively. These tables should contain information concerning any changes of the present state of implementation of observing programmes of SYNOP, TEMP and PILOT reporting stations given in Attachment I-4 of the Manual on the GTS, Volume I for global exchange and, as applicable, Attachments AF-I, AI-1, SA-1, NA-1, PS-1 and EU-1 of the Manual on the GTS, Volume II for regional exchange.

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

   (a) In the column "Station index number", the index number (IIIII) of each station should be entered in case of any changes in the observing programmes of the stations;

   (b) In the column "Bulletin identification", the TTAAii CCCC of the abbreviated heading of the meteorological bulletins which contains reports from the station should be inserted;

   (c) In the column "Implementation of observing programme", "X" for implementation and "-" for non-implementation should be inserted as appropriate. In order to easily identify changes in the programme, this should be marked in red;

   (d) In the column "Alternate observing station", the index number (IIii) of an alternate observing station should be inserted in case another station is available with a view to filling gaps which are caused by suspension of observing programmes of the original station;

   (e) The required information concerning the observing programme of the alternate station should be inserted in the next horizontal line of the original station;

   (f) In the column "Remarks", reasons of temporary suspension of observing programmes and an expected date of resumption of the programmes should be given as far as possible. Non-standard collection and/or distribution times should also be included.

3. These tables should be sent to the Secretariat before the 1st of the month for inclusion of the changes in the monthly operational letter, as appropriate.

# Annex III - Global Telecommunication System

Date: June 1991

## A. GTS regulatory or guidance material

### 4. Regional telecommunications plans

The President of RA VI approved to amend the Manual on the GTS - Regional Aspects - Region VI - Part I - to take into account the following changes relating to accession of former German Democratic Republic (GDR) to Germany: deletion of the main regional circuit Prague-Potsdam from the plan, deletion of the area corresponding to the former GDR from the zone of responsibility to RTH Prague as from 2200 UTC, 30 June 1991 and termination of the RTT broadcast of Potsdam.

## C. Information on the operation of the GTS

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

#### 1.3 Changes to bulletins

Notification from the United Kingdom that with effect from 0000 UTC 1 June 1991, station 03322 replaced 03318 in bulletins SMUK01 EGRR, SIUK21 EGRR and SNUK21 EGRR

Exchange of bulletins including information on the status of the ozone layer on the GTS

1. Bulletins including information on the status of the ozone layer will be prepared by the WMO Secretariat as from August 1991. Such information has already been inserted in the METNO messages during the second half of 1990 as a temporary measure.

2. With a view to making it possible to insert the bulletins into the GTS from the WMO headquarters from August 1991, the president of CBS has agreed to allocate the abbreviated heading AOAA01 LWMO for these bulletins.

3. At first, test messages will be inserted on 7 and 14 August 1991 and then it is expected to send bulletins routinely at any dates from the end of August to the end of November with a possible average of 4 bulletins a month. WMO members are invited to relay, as required, these bulletins on the GTS.

# Annex IV - Codes

Date: June 1991

## B. Manual on codes

### 1. Global practices

#### 1.3 Changes to codes

Volume I - Manual on Codes

FM 65-IX WAVEOB

The Chairman of the Sub-group on Codes, after consultation with the Members currently using the code FM 65-IX WAVEOB, has approved the editorial additions to regulations 65.1.3.2 and 65.1.4.1, which reflect the present use of the code. The revised text for pages 1-A-173 - 1-A-174 is attached:

FM 65-1X WAVEOB

**65.1.3.2**

**When used, Section 1 shall contain the section identifier, the total number of bands described in the section, the sampling interval (in tenths of a second or in metres), the duration in seconds of record of the wave or the length in tens of metres, the number (BB) of bands described in the next two groups, the first centre frequency (Hz) or first centre wave number (metres)$^{-1}$ and the increment added to obtain the next centre frequency (Hz) or the next centre wave number (metres)$^{-1}$ and their associated exponents.**

**NOTE: In deriving the value of the first center frequency in a series or wave number and increment from the groups $nf_nf_nf_nx$ $nf_df_df_dx$, decimal points are assumed at the left of the numeric values. For example, for center frequency, the groups 13004 11004 would be interpreted as a first center frequency of 0.300 x 10 to -1 Hz and and increment of 0.100 x 10 to -1 Hz. (The maximum spectral spectral density value $C_mC_mC_m$ in section 2, or $C_{sm}C_{sm}C_{sm}$ in section 3, is coded in a similar fashion.)**

65.1.3.3

Except when BB = 00, the two groups for the first centre frequency or first centre wave number, and the increment added to obtain the next centre frequency or the next centre wave number (each time preceded by BB) shall be repeated (n) times as required to describe band distribution .

NOTE: If sets of data groups are greater than 9, the group identifier (n) for the tenth set will be 0. the group identifier for the eleventh will be 1 . etc.

65.1.3.4

BB shall be encoded BB = 00 when no increments are given and the following (n) groups are actual centre frequencies or actual centre wave numbers.

NOTE: The note under Regulation 65.1.3.3 applies if data groups are greater than 9.

65.1.4

*Use of Sections 2 and 3*

**65.1.4.1**

**When used, Section 2 shall contain the section identifier, an exponent associated with the first data group on the maximum value for nondirectional spectra ($C_mC_mC_m$) in $m^2$ Hz $^{-1}$ for frequencies or $m^3$ for wave numbers from wave heave sensors, given as a 3-digit number. The band number (nmnm) in which the maximum value for non-directional spectra occurs shall be included in the same group as the value. Subsequent groups shall contain ratios of individual spectra to the maximum ($c_1c_1$ to $C_nC_n$) as a percentage (00 99), with 00 meaning either zero or 100 per cent.**

**NOTE (1): See note under regulation 65.1.3.2**

**NOTE (2): Confusion between a zero ratio and the maximum ratio (100 per cent) should not arise since the band number ($n_mn_m$) for the maximum has already been identified.**

FM 65-1X WAVEOB

65.1.4.2

Each group containing ratios shall begin with an odd number representing the unit value of the first band in the group. Thus, the number 1 shall identify values for the first and second or eleventh and twelfth or twenty-first and twenty-second, etc., bands. The last group shall contain two ratios for even numbers of bands and one ratio for odd numbers of bands. In the case of odd numbers of bands, the last two characters in the group shall be encoded as //.

65.1.4.3

When used, Section 3 shall contain the section identifier, and nondirectional spectral data derived from wave slope sensors, analogous to
Section 2. Regulations 65.1.4.1, with the exception of the section identifier, and 65.1.4.2 shall apply.

65.1.5

*Use of Section 4*

When used, Section 4 shall contain the section identifier and pairs of data groups of mean direction and principal direction from which waves are coming for the band indicated, relative to true north, in units of 4 degrees, and the first and second normalized polar co-ordinates derived from Fourier coefficients. The pairs of groups shall be repeated (n) times as required to describe the total number of bands given in Section 1.

NOTES:

(1) The note under Regulation 65.1.3.3 applies if pairs of data groups are greater than 9.

(2) The mean direction and principal direction from which waves are coming will range from 00 (actual value 358° to less than 2°) to 89 (actual value from 354° to less than 358°). A value of 99 indicates the energy for the band is below a given threshold.

(3) Placing $d_{ai}d_{ai}$, and $d_{a2}d_{a2}$ for each band in the same group with $r_1r_1$ and $r_2r_2$ for the same band in the next group allows a quick visual check of the state of the sea.

(4) If $d_{ai}d_{ai}$=$d_{a2}d_{a2}$ and $r_1r_1 > r_2r_2$ there is a single wave train in the direction given by the common value of $d_{ai}d_{ai}$ and $d_{a2}d_{a2}$.

(5) If the coded value of $| d_{ai}d_{ai} - d_{a2}d_{a2} | > 2$ and $r_1r_1 < r_2r_2$ a confused sea exists and no simple assumption can be made about the direction of the wave energy.

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

Date: June 1991

C. Information on the operation of Marine Meteorological Services

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

Australia - Australie (22.V.1991)

Changes (pages: D-$C_1$-V-3/4)

| (1) | (2) | (3) |
|---|---|---|
| Adelaide, South Australia | C/-South Australia Regional Office (see/voir (6)) | 3662288 |

(4) Forecasts and warnings on request. /
Prévisions et avis sur demande.

(5) Advice and information, instrument checks, log-books etc. /
Conseils et renseignements, vérification des instruments, livres de bord etc.

(6) Regional Director, Bureau of Meteorology, 25 College road, Kent Town, S.A. Tel. 3662222

| (1) | (2) | (3) |
|---|---|---|
| Brisbane, Queensland | C/-Queensland Regional Office (see/voir (6)) | 2252790 |

(4) Forecasts and warnings on request. /
Prévisions et avis sur demande.

(5) Advice and information, instrument checks, log-books etc. /
Conseils et renseignements, vérification des instruments, livres de bord etc.

(6) Regional Director, Bureau of Meteorology, 295 Ann Street, Brisbane, Qld, Tel. 2252766

| (1) | (2) | (3) |
|---|---|---|
| Darwin, Northern Territory | C/-Northern Territory Regional Office (see/voir (6)) | 824717 |

(4) Forecasts and warnings on request. /
Prévisions et avis sur demande.

(5) Advice and information, instrument checks, log-books etc. /
Conseils et renseignements, vérification des instruments, livres de bord etc.

(6) Regional Director, Bureau of Meteorology, 79-81 Smith Street, Darwin, N.T. Tel. 824711

| (1) | (2) | (3) |
|---|---|---|
| Freemantle,<br>Weatern Australia | Victoria Quay, (near Harbourmaster's Office)<br>Freemantle | 3358444 |

(4) Forecasts and warnings on request. /
Prévisions et avis sur demande.

(5) Advice and information, instrument checks, log-books etc. /
Conseils et renseignements, vérification des instruments, livres de bord etc.

(6) Regional Director, Bureau of Meteorology, 127 Wellington Street, Perth, W.A. Tel. 4259299

Australia - Australie (continued/suite)

| (1) | (2) | (3) |
|---|---|---|
| Hobart, Tasmania | C/-Tasmania Regional Office (see/voir (6)) | 206628 |

(4) Forecasts and warnings on request. /
Prévisions et avis sur demande.

(5) Advice and information, instrument checks, log-books etc. /
Conseils et renseignements, vérification des instruments, livres de bord etc.

(6) Regional Director, Bureau of Meteorology, 20 Ellerslie Road, Hobart, TAS. Tel. 206666

| (1) | (2) | (3) |
|---|---|---|
| Melbourne, Victoria | 14 Victoria Dock, Melbourne | 621810 |

(4) Forecasts and warnings on request. /
Prévisions et avis sur demande.

(5) Advice and information, instrument checks, log-books etc. /
Conseils et renseignements, vérification des instruments, livres de bord etc.

(6) Regional Director, Bureau of Meteorology, 150 Lonsdale Street, Melbourne. Vic. Tel. 6677600

| (1) | (2) | (3) |
|---|---|---|
| Sydney, New South Wales | C/- N.S.W. Regional Office (see/voir (6)) | 2698547 |

(4) Forecasts and warnings on request. /
Prévisions et avis sur demande.

(5) Advice and information, instrument checks, log-books etc. /
Conseils et renseignements, vérification des instruments, livres de bord etc.

(6) Regional Director, Bureau of Meteorology, 162-166 Goulburn Street, Darlinghurst, N.S.W.
Tel. 2698555

4. Collection and dissemination of marine information

In view of the many VOS which are now or which will soon be operating INMARSAT-C terminals on board, a software package called TURBO-2 (TURBO Transmission of Weather Observations) has been developed by the Royal Netherlands Meteorological Institute (KNMI). The software is currently under test on the weather ship "Cumulus", and its purpose is to allow the ship staff to properly code the wather observation and then prepare a correctly formatted message for transmission via INMARSAT. Once the testing period is finished and the necessary modifications introduced, the software package will be made available to all Meteorological Services for use on board VOS. Furthe rinformation may be obtained directly from KNMI.