leaded for the Last Reader, 2006 di INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION COMMISSION OCEANOGRAPHIQUE INTERGOUVERNEMENTALED = Belgium - iel. ORGANISATION METEOROLOGIQUE MONDIALE COMISION OCEANOGRAFICA INTERGUBERNAMENTAL ORGANIZACION METEOROLOGICA MUNDIAL **МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ** 

Printed WORLD METEOROLOGICAL ORGANIZATION ВСЕМИРНАЯ МЕТЕОРОЛОГИЧЕСКАЯ ОРГАНИЗАЦИЯ



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15. 04. 83 DOSS.

Incling was Trampfanishanalille anderines



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Joint IOC/WMO circular letter No. 82-77

GENEVA, 31 December 1982.

Annex:

1 (English only)

22659

Subject:

Sixth issue of the regular information service bulletin on ocean data buoys and other Ocean Data Acquisition Systems

Action required:

- (1) To transmit information on ocean data buoys and other ODAS to national authorities concerned;
- To inform the WMO and IOC Secretariats of national data buoys and other ODAS before 30 June 1983.

To:

Member States of IOC Permanent Representatives of Members of WMO (PR-3517)

Dear Sir/Madam,

I have pleasure in forwarding herewith the sixth issue of the regular information bulletin on ocean data buoys and other ODAS valid on 1 October 1982 which was prepared on the basis of the information received from Member States in response to the Joint IOC/WMO circular letter No. 81-70 of 16 December 1981.

This bulletin is based exclusively on information received from the Permanent Representatives of Members of WMO and Member States of IOC. As you are probably aware, at present, inventories of this kind are also prepared by other organizations such as ICES and COST-43. It is therefore important that co-ordination is made at the national level so as to avoid discrepancies among these inventories.

I would like to stress that one of the purposes of this bulletin is to make widely known the position and nature of deployed buoys and other ODAS for the safety of navigation and for preventing wilful damages to these installations. Those countries deploying ocean data buoys and other ODAS are therefore invited to inform national authorities concerned of their deployment.

cc: National Representatives for IGOSS

Vlaams Instituut voor de Zee Franciero Marino Inetitute

Chairman, vice-chairman and Members of the Joint IOC/WMO Working Committee for IGOSS

Chairman and vice-chairman, IOC Working Committee for IODE

President and vice-president, WMO Commission for Marine Meteorology

wident and vice-president, WMO Commission for Basic Systems

Secretary-General, IMO

Secretary-General, ICS

Secretary-General, CIRM

President of the Directing Committee, IHO

Chairman, IFRB (ITU)

I would also like to draw your attention to the decisions of the governing bodies of IOC and WMO which urged Member States to arrange for the increased transmission of buoy data, both moored and drifting, on the Global Telecommunication System (GTS) on a real-time basis. It is therefore very much hoped that institutions deploying buoys will arrange for the insertion of their data onto the GTS for operational oceanographic and meteorological purposes.

Since the publication of the first issue of this bulletin, its contents have been enlarged to include, in addition, drifting buoys and other ODAS. The volume has thus considerably increased. At the same time it has become necessary to review the present presentation and layout to judge if it is still adequate for the purpose of information exchange and programme promotion. I should therefore be grateful if you would kindly send your comments on this question to the Secretariats by 31 January 1983. comments will be very useful for the third session of the Joint IOC/WMO Working Committee for IGOSS in making a decision on this matter.

Yours faithfully,

(M. Ruivo)

Secretary, IOC

(G.K. Weiss) for the Secretary-General of WMO INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION
(of UNESCO)

WORLD METEOROLOGICAL ORGANIZATION

INTEGRATED GLOBAL OCEAN SERVICES SYSTEM

WORLD WEATHER WATCH

REGULAR INFORMATION SERVICE BULLETIN ON OCEAN DATA BUOYS AND OTHER OCEAN DATA ACQUISITION SYSTEMS (ODAS)

SIXTH ISSUE - DECEMBER 1982

## INFORMATION ON OCEAN DATA BUOYS

A. Background: Recommendation 4 (IPLAN-III) - Protection from loss and wilful disablement of buoys supporting IGOSS and WWW - which was subsequently endorsed by the twenty-eighth session of the WMO Executive Committee (Res. 6 (EC-XXVIII)) and the seventh session of the IOC Executive Council (Res. EC-VII.10), requested the two Secretariats to initiate a regular service for obtaining information from Member States on their ocean data buoys and providing wide dissemination of the information collected. The purpose or such a service is, not only to ensure the safety of navigation and the protection of buoys against collision, but also to inform the maritime community of the great scientific value of and the immediate benefits to be derived from ocean data buoys.

Since meteorological and oceanographic reports which originated from many anchored and drifting buoys and from other ODAS listed are now routinely exchanged over the Global Telecommunication System, the particulars of these ODAS are published in a consolidated form for reference purposes.

A list of moored ocean data buoys, platforms, fixed towers and light vessels will also be included in WMO Publication No. 9, Volume A - Observing Stations and will be updated regularly.

B. References: So far the bulletins have been issued by the following Joint IOC WMO circular letters:

No. 77-32 dated 31 August 1977

No. 78-46 dated 18 October 1978

No. 79-58 dated 21 November 1979

No. 81-66 dated 11 May 1981

No. 81-70 dated 16 December 1981.

# C. Layout

# Country

- 1. Name and address of operating agency
- 2. Type of buoy or other ODAS (e.g. oil rig, observing tower)
- 3. Size and configuration
- 4. Markings and signal characteristics
- 5. International identifier or call sign
- 6. Position deployed
- 7. Date of deployment and intended duration
- 8. Status of buoy operation
  - (i) Operational;
  - (ii) Experimental
- 9. Anticipated track and estimated speed of drift
- 10. Elements measured
- 11. Transmission particulars:
  - (i) Assigned frequency and channel;
  - (ii) Class of emission;
  - (iii) Effective radiated power;
  - (iv) Time period of transmission
- 12. Data exchange and archival procedures
  - (i) Data availability;
    - (a) Transmitted over the GTS;
    - (b) Made available to other countries (through IODE, bilateral arrangements, etc.);
  - (ii) Data archival form (magnetic tapes, punch cards, charts, etc.).

## Australia

- Antarctic Division
   Department of Science and Technology
   Kingston, Tasmania 7150
- 2. Drifting spar buoy with armour protection against ice
- 3. Length 3.25 m, maximum diameter 0.34 m weight (without ballast) 200 kg, ballast chain weight 200 kg. Constructed of black, welded, high-density polyethylene pipe with a l m long ice protection collar of 50 mm thick resin and fibreglass near the waterline. Not droqued
- No lights or markings
- UHF radio transmissions from buoy to NOAA orbiting satellites include 20 bit identifier
- 6. Three buoys are to be deployed at the approximate positions:

64 S 62 E

67°S 68°E

65° 74°E

- 7. The three buoys will be deployed between January and March 1983 as opportunity permits. Expected lifetime is 6 to 12 months
- Prototype experimental buoys
- Uncertain-intended to be frozen in by sea ice. Open water drifting speed about 1-2 knots
- 10. Pressure, air temperature, internal temperature, sea surface temperature, sea temperature at 100 m depth, inclination, sea ice thickness, battery voltage
- 11. (i) 401.650 MHz;
  - (ii) Argos compatible phase modulated pulse;
  - (iii) 33 dBm PEP;
  - (iv) 0.44 sec every minute (approximately)
- 12. (i) (a) No;
  - (b) On request;
  - (ii) 1600 bpi magnetic tape

#### Australia

- Bureau of Meteorology
   P.O. Box 1289K
   Melbourne, Victoria 3001
- 2. Automatic Weather Station (AWS) Data Collection Platform (DCP) type
- 3. Heard Island: Stainless steel drum 590 mm high and 375 mm diameter with integral antenna and internal battery pack. Unit is mounted on a 2 m tower and protected against air-borne debris by a surrounding screen.

Lihou and Marion Reefs: Stainless steel drum (as above) located inside a weather proof hut. Antenna, wind and temperature sensors are located on top of the hut. Power source is an alkaline-manganese dry battery also located inside the hut

- 4. Deltatek, Automatic Weather Station. Model No. 11, Serial No. Deltatek Pty. Ltd., Melbourne, Australia. No other markings
- 5. UHF radio transmission from the AWS to Argos equipped NOAA orbiting satellites, includes a 20 bit identifier:

Heard Is. Hex 30725 Marion Reef Hex 30776 Lihou Reef Hex 307D0

6. Three Australian DCP type AWS have been installed. Their locations are:

Heard Island	53° 0	1'S	73°	23¹E	(WMO	No.	94997)
Marion Reef	19' 0	6'S	152*	23'E	(WMO	No.	95298)
Lihou Reef	17" 1	.01S	152	05'E	(WMO	No.	952961

- 7. Heard Island AWS installed February 1980 with expected battery life of 2 years (February 1982). AWS still operational (20 May 1982). Station will be rejuvenated first available Antarctic expedition (expected October 1982) to provide a further 2-year life expectation. Marion Reef and Lihou Reef AWS installed December 1981 for an indefinite duration. Battery will be replaced every 18 to 24 months
- 8. Experimental However future AWS are intended for real time operational use as a back-up to the primary AWS network
- 9. N/A fixed location
- 10. Heard Island: Atmospheric pressure, internal temperature (will be delteted soon) and battery voltage.

  Marion and Lihou Reefs: Atmospheric pressure, 10 minute average wind speed and direction, air temperature and battery voltage
- 11. (i) 401.650 MHz;
  - (ii) Phase modulated pulse coded Argos compatible;
  - (iii) 33 dBm peak envelope power;
  - (iv) 0.44 second approximately every 120 seconds
- 12. (i) (a) No;
  - (b) Available on request;
  - (ii) Magnetic tapes: 800 bpi

## Belgium

- 1. Institut Royal Météorologique Groupe de travail interactions océan-atmosphère 3, Av. Circulaire 1180 Bruxelles
- Model of the University of Hamburg, Brocks-ATEX moored buoy
- 3. Conical body, diameter 2 m, extended by a cylinder 6 m long with mobile ballast
- 4. B.C.D. (Binaire-code-decimal)
- 5. Being determined
- 6. First phase: Mezzo Golfo (Bay of Calvi), afterwards further out in the Ligurian Sea (during MEDALPEX)
- 7. Participation to preliminary measurements for MEDALPEX and COST-43 Mediterranean sub-programmes during 90 days (July , August and September 1981) and if possible also in October and November 1981
- 8. Participation to BATHY programme of IGOSS during the same period with thermistor chain (data on magnetic tapes)
- 9. Not applicable
- 10. All "SHIP" parameters apart from pressure and precipitation which are planned for inclusion in the third phase
- 11. (i) 31 MHz
  - (ii) -
  - (iii) l watt
  - (iv) Two minutes every hour
- 12. (i) (a) March and April 1982; (b) -
  - (ii) Charts and magnetic tapes in 1981

## Belgium

- Ministère de la santé publique et de l'environnement Unité de gestion du modèle mathématique de la Mer du Nord C.A.E. Vesale 2/3 B-1010 Bruxelles
- 2. Moored cylindrical buoy
- 3. Diameter 3 m, height 11 m (with antenna), measuring height 8 m
- Fluorescent yellow paint. Interrupted group yellow flashing 5 (20 secs).
   Passive radar reflector, Owner's name in black letters
- 5. -
- 6. 51° 23' 43" N 3° 2' 50" E
- November 1978
- Experimental
- 9. -
- 10. Sea water temperature and conductivity A 1 m heave. Air temperature at 8 m. Wind speed and direction at 8 m. Barometric pressure
- 11. (i) 31.85 MHz
  - (ii) Lower VHF band. Phase modulation. Pulse length coded
  - (iii) 3 watts
  - (iv) 12 minutes every 3 hours and on request from shore station
- 12. (i) Not transmitted over the GTS. Available on request
  - (ii) Magnetic tapes

- Institut für Meereskunde (FRG) and Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- 2. Drifting
- 2 m high
- 4. -
- 5. 44635
- 6. 45°N 45'W
- 7. July 22 1982
- 8. (i) No; (ii) Yes
- 9. East at 10 Kn/day
- 10. Msl pressure, water temperature
- 11. (i) 401.650 MHz;
  - (ii) 2P9;
  - (iii) 6 watts;
  - (iv) Every 40-60 seconds
- 12. (i) (a) Yes; (b) -;
  - (ii) None

- Atmospheric Environment Service 1. 4905 Dufferin Street Downsview, Ontario M3H 5T4
- 2. Drifting (drogued)
- 3. 1.8 Hermes conical
- 4. Hermes label, international orange
- 5. WMO No. 46640 (ARGOS HEX 3260E; known as PADS 10)
- 6. 40'N 157'W
- 7. September 19, 1981; 1 year
- 8. (i) Yes;
  - (ii) No
- 9. Eastward at 4 km per day
- l£. Atmospheric pressure, sea temperature
- 11. 401.65 MHz; (i)
  - (ii)
  - (iii) 33 dBm;
  - 360 msec each 55 sec (iv)
- 12. (i) (a) Yes; (b) -;
  - Method not decided (ii)

- Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- Drifting (drogued)
- 1.8 Hermes conical
- 4. Hermes label, international orange
- 5. WMO No. 46641 (ARGOS HEX 3260E; known as PADS 11)
- 6. 44°N 157'W
- 7. September 20, 1981; 2 years
- 8. (i) Yes; (ii) No
- 9. Eastward at 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- 12. (i) (a) Yes; (b) -
  - (ii) Method not decided

- Atmospheric Environment Service l. 4905 Dufferin Street Downsview, Ontario M3H 5T4
- 2. Drifting (undrogued)
- 3. 1.8 Hermes conical
- 4. Hermes label, international orange
- WMO No. 46642 (ARGOS HEX 3260E; known as PADS 12) 5.
- 6. 48'N 157'W
- 7. September 20, 1981; 1 year
- Yes; 8. (i) (ii) No
- 9. Eastward at 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz
  - (ii)
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- (a) Yes; 12. (i) (b) -

  - (ii) Method not decided

- Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- 2. Drifting
- 1.8 Hermes conical
- 4. Hermes label, international orange
- 5. WMO No. 46643 (ARGOS HEX 3212; PADS 13)
- 6. 48'N 177'W
- 7. June 11, 1982
- 8. (i) Yes; (ii) No
- 9. Eastward at 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm
  - (iv) 360 msec each 55 sec
- 12. (i) (a) (b) -
  - (ii) Method not decided

- 1. Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- 2. Drifting
- 1.8 Hermes conical
- 4. Hermes label, international orange
- 5. WMO No. 46644 (ARGOS HEX 3219; PADS 14)
- 6. 44°01'N 176°58'W
- 7. June 12, 1982
- 8. (i) Yes; (ii) No
- (11) 100
- 9. Eastward at 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- 12. (i) (a) (b) -
  - (ii) Method not decided

- Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- Drifting
- 1.8 Hermes conical
- 4. Hermes label, international orange
- 5. WMO No. 46645 (ARGOS HEX 3214; PADS 15)
- 6. 40°00'N 177°00'W
- 7. June 12, 1982
- 8. (i) Yes; (ii) No
- 9. Eastward at 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- 12. (i) (a) Yes;
  - (ii) Method not decided

- Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- 2. FGGE-type drifter buoy
- 3. 0.5 m diameter, length 1.8 m
- 4. AES label, international orange
- 5. WMO No. 47541
- 6. Hudson Bay
- 7. July 1982 to January 1983 (tentative)
- 8. (i) -(ii) Yes
- 9. Unknown
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- 12. Pending

- 1. Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- 2. FGGE-type drifter buoy
- 3. 0.5 m diameter, length 1.8 m
- 4. AES label, international orange
- 5. WMO No. 47540
- 6. Hudson Bay (Northwest quadrant)
- 7. July 1982 to January 1983 (tentative)
- 8. (i) -(ii) Yes
- 9. Southeast 2 Kn
- 10. Water temperature, air pressure
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- 12. Pending

- Atmospheric Environment Service
   4905 Dufferin Street
   Downsview, Ontario M3H 5T4
- Drifting
- 1.8 Hermes conical
- Hermes label, international orange
- 5. -
- 6. 48°N 157'W
- 7. October 1982
- 8. (i) Yes; (ii) -
- 9. Eastward at 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- 12. (i) (a) Yes;
  - (b) -
  - (ii) Method not decided

- 1. Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- Drifting
- 1.8 Hermes conical
- 4. Hermes label, international orange
- 5. -
- 6. 46°N 157'W
- 7. October 1982
- 8. (i) Yes; (ii) -
- 9. Eastward at 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- 12. (i) (a) Yes; (b) -
  - (ii) Method not decided

- Atmospheric Environment Service 1. 4905 Dufferin Street Downsview, Ontario M3H 5T4
- Drifting 2.
- Э. 1.8 Hermes conical
- 4. Hermes label, international orange
- 5.
- 40°N 157'W 6.
- 7. October 1982
- 8. (i) Yes;
  - (ii) -
- 9. Eastward at 4 km per day
- Atmospheric pressure, sea temperature 10.
- 11. (i) 401.65 MHz
  - (ii)
  - (iii) 33 dBm;
  - 360 msec each 55 sec (iv)
- 12. (i) (a) Yes;
  - (b) -
  - (ii) Method not decided

- 1. Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- 2. Drifting
- 1.8 Hermes conical
- 4. Hermes label, international orange
- 5. -
- 6. 44°N 157'W
- 7. October 1982
- 8. (i) Yes; (ii) -
- 9. Eastward at 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 sec
- 12. (i) (a) Yes;
  - (b) -
  - (ii) Method not decided

- 1. Atlantic Oceanographic Laboratory
  Ocean Science and Surveys, Atlantic Region
  Department of Fisheries and Oceans
  P.O. Box 1006
  Dartmouth, Nova Scotia B2Y 4A2
- 2. Moored buoy
- 3. 1.8 m Hermes conical with floatation collar
- 4. Hermes label, international orange
- 5. Argos 2419
- 48'15N 52'30'W (approximately)
- 7. April 1982 until August 1982
- 8. (i) Yes; (ii) -
- 9. Nil
- 10. Water temperature at 0, 10, 20, 30, 40, 50, 75, 100 m
- 11. (i) 401.65 MHz (via System Argos)
  - (ii) -
  - (iii) 33 dBm;
  - (iv) 130 sec
- 12. (i) Available to users only in real time
  - (ii) Archived on magnetic tape

- Fisheries and Oceans Canada
   Marine Environmental Data Services Branch
   Ocean Science and Surveys
   Wave Climate Study
   240 Sparks Street
   Ottawa, Ontario KIA OE6
- 2. MEDS WRIPS buoy (Waverider Information and Processing System)
- 3. Spherical hull, diameter 0.9 m fitted with fibre glass tube-type satellite antenna
- Vinyl fluorescent orange and yellow vertical stripes, flashing white light visible 1.5 km. (Eight 1-second consecutive flashes; 12 seconds darkness; duty cycle.) Address stencilled on buoy in two places with collect telephone number
- 5. N/A
- 6. 46°40'N 48°40'W
- 7. March 1, 1982 indefinite
- 8. (i) Yes;
  - (ii) -
- 9. Fixed mooring 2: 1 scope
- 10. Significant wave height and period, spectral wave data, sea surface temperature, housekeeping parameters
- 11. (i) UHF communications are through GOES. Up-link frequency assigned to MEDS is 401.7280 MHz (GOES channel 19) east GOES; the down-link frequency is universal and is 468.8375 (east GOES). UHF for position location is up-ling only and is 401.650 MHz for the Tiros satellite
  - (ii) UHF; 2 P9;
  - (iii) GOES 40 watts; Argos 2 watts;
  - (iv) GOES 815 second message every 3 hours, commencing 0029 hr Zulu; Argos 1 second every 60 seconds
- 12. (i) Yes;
  - (a) No;
  - (b) On request;
  - (ii) 1600 bpi, 9-track magnetic tape EBCDIC

- Fisheries and Oceans Canada
   Marine Environmental Data Services Branch
   Ocean Science and Surveys
   Wave Climate Study
   240 Sparks Street
   Ottawa, Ontario KIA OE6
- 2. MEDS waverider buoy
- Spherical shell, diameter 0.7 m, height with antenna, 3.14 m
- 4. Fluorescent orange and yellow vertical stripes. Flashing white light visible 1.5 km. (Duty cycle 8 consecutive 1-second flashes, 12 seconds darkness.) Have address stencilled on buoy in two places and collect telephone number
- 5. N/A
- 6. Stations actively recording as of 1 April 1982:
  - (i) Shearwater (Osborne Head 44°29'25"N, 63°24'15"W
  - (ii) Tofino, B.C.

48°59'27"N, 125°44'39"W

(iii) Rowan Juneau

43°51'36"N, 59°27'24"W

\* (iv) Bow Drill l

- 44.1°N 58.5°W
- Stations actively recording as of 1 April 1982:
  - (i) Deployed 15 December 1970 (continuing permanent wave station (CPWS) -
  - (ii) Deployed 15 June 1970 (CPWS)
  - (iii) Deployed 22 August 1980
  - (iv) Deployed 6 January 1982
- 8. All operational
- Fixed locations
- 10. Wave height and period
- 11. (i) 27.695 to 30.520 MHz (Depending on interference)
  - (ii) VHF
  - (iii) 0.175 watts ± 30%, range 50 km
  - (iv) Continuous
- 12. Data available from operating agency upon request

<sup>\*</sup> Position of oil rig not permanent; changes periodically and future positions unknown at WCS

- Ellerman City Lines Ltd.
   12-20 Camomile St.
   London EC 3, United Kingdom
- CEI Space, type TMA79M
- 3.  $35 \times 20 \times 28 \text{ cm package}$
- 4. Terminal clavier each 55 sec
- 5. 46651
- 6. Vancouver on Ocean Vessel Dilkara
- 7. l year from July 1982
- 8. (i) No; (ii) Yes
- 9. N/A
- 10. Air pressure 1 internal temperature
- 11. (i) 401.65 MHz;
  - (ii) Phase modulated;
  - (iii) 3 watts;
  - (iv) 0.3 second
- 12. (i) (a) No; (b) No;
  - (ii) N/A

- 1. c/o Mobil Oil Canada Ltd. Bank of Commerce Bldg. Suite 1004, 1809 Barrington St. Halifax, N.S.
- 2. Oil rig
- 3.
- 4. Oil rig Zapata Scotian
- KNDH 5.
- Near Sable Island 44° 01'N 59° 47'W 6.
- 7. Continuing Summer 1982
- 8. (i) Yes;
  - (ii) No
- 9.
- 10. Pressure, air temperature, sea temperature, wind, wave height, visibility, cloud height, sky condition, weather
- 11.
- 12. (a) Yes; (i) (b) -
  - (ii) Magnetic tape, 3 hourly observations

- c/o Mobil Oil
   Atlantic Place
   St-John's, Nfld.
- 2. Oil rig
- 3. -
- 4. Zapata Ugland
- 5. LFAE
- 6. Grand Banks 47° 34'N 48° 12'W
- 7. Continuing Summer 1982
- 8. (i) Yes; (ii) No
- 9. -
- 10. Wind, pressure, air temperature, sea temperature, visibility, cloud height, sky condition, weather
- 11. -
- 12. (i) (a) Yes; (b) -
  - (ii) Magnetic tape, 3 hourly observations

- Bow Valley Offshore Drilling Ltd. Bally Rou Place 280 Torbay Rd., Box 5487 St. John's, Nfld. AlC 5W4
- 2. Oil rig Bow drill
- 3. -
- 4. Bow Drill 1
- 5. GVHY
- 6. 44° 10'N 58° 34'W
- 7. Continuing Summer 1982
- 8. (i) Yes; (ii) No
- 9. -
- 10. Wind, pressure, air temperature, sea temperature, visibility, cloud height, sky condition, weather
- 11. -
- 12. (i) (a) Yes; (b) -
  - (ii) Magnetic tape, 3 hourly observations

- 1. Mobil Oil Canada Ltd. 450 Pleasant St. Dartmouth, N.S., B2Y 3S5
- 2. Oil rig
- 3.
- 4. Rowan-Juneau
- CJR 681 5.
- Near Sable Island 43° 59'N 59° 38'W 6.
- 7. Continuing Summer 1982
- 8. (i) Yes; No
  - (ii)
- 9.
- Wind, pressure, air temperature, sea temperature, relative humidity (air), wave 10. data, visibility, cloud height, sky condition, weather
- 11.
- 12. (i) (a) Yes; (b) -
  - (ii) Magnetic tape, 3 hourly observations

- c/o MacLaren Plansearch
   Vanguard Court
   P.O. Box 13250, Station A
   St. John's, Nfld.
- 2. Oil rig
- 3. -
- 4. SEDCO 706
- 5. WVFN
- 6. 46° 51'N 48° 44'W
- 7. Continuing Summer 1982
- 8. (i) Yes;
  - (ii) No
- 9. -
- 10. Pressure, wind, air temperature, wave height, sea temperature, visibility, cloud height, sky condition, weather
- 11. -
- 12. (i) (a) Yes; (b) -
  - (ii) Magnetic tape, 3 hourly observations

- 1. Canterra Energy Ltd.
  P.O. Box 1051
  Calgary, Alberta T2P 2K7
- 2. Oil rig
- 3. -
- 4. PETREL
- 5. Unknown
- 6. 62" 18'N 62" 33'W
- 7. July to October 1982
- 8. (i) Yes; (ii) No
- 9. -
- 10. Wind, pressure, air temperature, sea temperature, visibility, cloud height, sky condition, weather
- 11. -
- 12. (i) (a) Yes;
  - (ii) Magnetic tape, 3 hourly observations

- Petro Canada
  P.O. Box 2844
  Calgary, Alberta T2P 3E3
- 2. Oil rig
- 3. -
- 4. NEDRILL 2
- 5. Unknown
- 6. 58° 49'N 60° 32'W
- 7. July to October 1982
- 8. (i) Yes; (ii) No
- (11)
- 9. -
- 10. Wind, pressure, air temperature, sea temperature, visibility, cloud height, sky condition, weather
- 11. -
- 12. (i) (a) Yes; (b) -
  - (ii) Magnetic tape, 3 hourly observations

1.	Petro Can	Petro Canada							
	P.O. Box	2844							
	Calgary,	Alberta	T2P	3E3					

- 2. Oil rig
- 3. -
- 4. PELERIN
- 5. Unknown
- 6. 56° 05'N 58° 12'W
- 7. July to October 1982
- 8. (i) Yes; (ii) No
- 9. -
- Sky condition, visibility, weather, air temperature, pressure, wind, sea temperature
- 11. -
- 12. (i) (a) Yes;
  - (ii) Magnetic tape, 3 hourly observations

- Petro Canada
  P.O. Box 2844
  Calgary, Alberta T2P 3E3
- 2. Oil rig
- 3. -
- 4. PACNORSE 1
- 5. Unknown
- 6. 59° 10'N 62° 17'W
- 7. July to October 1982
- 8. (i) Yes; (ii) No
- 9. -
- 10. Wind, pressure, air and sea temperature, visibility, cloud height, sky condition, weather
- 11. -
- 12. (i) (a) Yes;
  - (ii) Magnetic tape, 3 hourly observations

## Canada

- 1. Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- Drifting buoy (drogued)
- 3. 1.8 m Hermes conical
- 4. Hermes label, international orange
- 5. WMO 46640 (Argos Hex 3260E; to be known as PADS 10)
- 6. 48.0°N 160.0°W (approximately)
- 7. 26 July 1981; 1 year
- 8. (i) Yes; (ii) No
- 9. Eastward, 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz;
  - (ii) -;
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 seconds
- 12. (i) Transmitted over Canadian circuits and to WMC;
  - (ii) Will be archived, method not decided

# Canada

- Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- Drifting buoy (drogued)
- 1.8 m Hermes conical
- 4. Hermes label, international orange
- 5. WMO 46641 (Argos Hex 328B4; to be known as PADS 11)
- 6. 44.0°N 165.0°W (approximately)
- 26 July 1981; 1 year
- 8. (i) Yes;
  (ii) No
- 9. Eastward, 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz;
  - (ii) -;
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 seconds
- 12. (i) Transmitted over Canadian circuits and to WMC;
  - (ii) Will be archived, method not decided

## Canada

- Atmospheric Environment Service 4905 Dufferin Street Downsview, Ontario M3H 5T4
- Drifting buoy (drogued)
- 1.8 m Hermes conical
- 4. Hermes label, international orange
- 5. WMO 46642 (Argos Hex 329AB; to be known as PADS 12)
- 6. 44.0°N 170.0°W (approximately)
- 7. 26 July 1981; 1 year
- 8. (i) Yes;
  - (ii) No
- 9. Eastward, 4 km per day
- 10. Atmospheric pressure, sea temperature
- 11. (i) 401.65 MHz;
  - (ii) -;
  - (iii) 33 dBm;
  - (iv) 360 msec each 55 seconds
- 12. (i) Transmitted over Canadian circuits and to WMC;
  - (ii) Will be archived, method not decided

- Institut für Meereskunde an der Universität Kiel Düsternbrooker Weg 20 2300 Kiel
- 2. 10 drifting buoys
- 3. Double conical with flotation collar 1 m diameter
- 4. Hull international orange, collar yellow
- (Argos experimental No. 164)
- 6. 44° N 46° N 40° W 45° W
- 7. 6 May to 16 May 1981, duration about 1 year
- 8. Experimental
- 9. Eastward 15 km per day
- 10. Atmospheric pressure, sea surface temperature
- 11. (i) 401.650 MHz (via System Argos)
  - (ii) -;
  - (iii) 33 dBm;
  - (iv) 440 msec each 55 seconds
- 12. (i) (a) Not transmitted over GTS;
  - (b) Made available through bilateral arrangements;
  - (ii) Archived on magnetic tape

- Institut für Meereskunde an der Universität Kiel Düsternbrooker Weg 20 2300 Kiel
- 5 drifting buoys
- Double conical with flotation collar 1 m diameter
- Hull international orange, collar yellow
- 5. -
- 6. 45" N 43" W
- 7. June 1982, duration about 1 year
- Experimental
- 9. Eastward 15 km per day
- 10. Atmospheric pressure, sea surface temperature
- 11. (i) 401.650 MHz (via System Argos)
  - (ii) -;
  - (iii) 33 dBm;
  - (iv) 440 msec each 55 seconds
- (i) (a) Transmitted over GTS;
  - (b) Made available through bilateral arrangements;
  - (ii) Archived on magnetic tape

- 1. Institut für Meereskunde an der Universität Kiel Düsternbrooker Weg 20 2300 Kiel
- 2. 13 drifting buoys
- 3. Double conical with flotation collar 1 m diameter
- 4. Hull international orange, collar yellow
- 5. -
- 6. 50° N 55° N 30° W 50° W
- 7. November 1982, duration about 1 year
- 8. Experimental
- 9. Eastward 15 km per day
- Sea surface temperature
- 11. (i) 401.650 MHz (via System Argos)
  - (ii) -;
  - (iii) 33 dBm;
  - (iv) 440 msec each 55 seconds
- 12. (i) (a) Transmitted over GTS;
  - (b) Made available through bilateral arrangements;
  - (ii) Archived on magnetic tape

- Institut für Meereskunde l. an der Universität Kiel Düsternbrooker Weg 20 2300 Kiel
- 2. 10 drifting buoys
- 3. Double conical with flotation collar 1 m diameter
- Hull international orange, collar yellow 4.
- 5.
- 40° N 43° N 6. 25° W 30° W
- 7. September/October 1982, duration about 1 year
- 8. Experimental
- 9. Eastward 15 km per day
- 10. Sea surface temperature
- 11. (i) 401.650 MHz (via System Argos)

  - (ii) -; (iii) 33 dBm;
  - (iv) 440 msec each 55 seconds
- 12. (i) (a) Transmitted over GTS;
  - (b) Made available through bilateral arrangements;
  - (ii) Archived on magnetic tape

- 1. Deutsches Hydrographisches Institut Bernhard-Nocht-Strasse 78 2000 Hamburg 4
- Lighthouse
- 3. Solid structure about 20 m high
- 4. Red/white painted, flashing light white, red, green; 3 sec on, 3 sec off
- 5. -
- 6. 54° 30'N 10° 10'E
- 7. Oceanographic station 1971 continuous
- 8. Operational
- 9. Not applicable
- Temperature air (8 m; 18 m), temperature water (0.5 m; 1 m; 2 m; 4 m; 8 m; 13 m), conductivity (8 m; 13 m), water level, current (13 m)
- 11. (i) 420.290 MHz;
  - (ii) UHF F 9;
  - (iii) 0.1 watts, range 20 km;
  - (iv) Hourly
- (i) (a) Not transmitted over GTS;
  - (b) Made available through IODE;
  - (ii) Archived on magnetic tape

- Deutsches Hydrographisches Institut Bernhard-Nocht-Strasse 78 2000 Hamburg 4
- 2. Light vessel
- Length 46 m, width 7 m
- 4. Red painted, flashing light 0.15 sec on, 3.84 sec off
- 5. DCL
- 6. 54° 37'N 11° 09'E
- 7. 1976 continuous
- 8. Experimental
- 9. Not applicable
- 10. Temperature air (12 m), temperature water (0.5 m; 10 m; 15 m; 20 m; 25 m), radioactivity of surface layer
- 11. (i) 150.09 MHz;
  - (ii) VHF F 9;
  - (iii) 0.1 watts, range 10 km;
  - (iv) Hourly

# METEOSAT - DCP

- (i) 402.113583 MHz;
- (ii) UHF, F<sub>1</sub> PSK, ASCII coded, 100 bits/s;
- (iii) 40 watts;
- (iv) Hourly
- - (ii) Archived on magnetic tape

- Deutsches Hydrographisches Institut Bernhard-Nocht-Strasse 78 2000 Hamburg 4
- 2. Oceanographic station
- 3. Platform on four legs, height about 25 m above mean sea level
- 4. Red and yellow painted, label "Nordsee", white light, Morse letter "u"
- 5. DA 9100
- 6. 54° 42' 05.8" N 07° 10' 09.2" E
- 7. Oceanographic station planned for 1982
- 8. Experimental
- Not applicable
- 10. Temperature water 3 m, 10 m, 15 m, 20 m, 25 m
- 11. Stored on cassettes
- (i) (a) No GTS transmission;
  - (b) Made available through IODE;
  - (ii) Archived on magnetic tape

- Deutscher Wetterdienst Seewetteramt Bernhard-Nocht-Strasse 76 2000 Hamburg 4
- 2. Automatic weather station
- 3. Platform on four legs, height about 25 m above mean sea level
- 4. Red and yellow painted, label "Nordsee", white light, Morse letter "u"
- 5. DA 9100
- 6. 54° 42' 05.8" N 07° 10' 09.2" E
- 7. 17 July 1979, permanent station
- 8. Operational
- 9. Not applicable
- 10. Sensors between 25 and 48 m above mean sea level: wind speed and direction, air temperature, air pressure, sea surface temperature, relative humidity, visibility, precipitation, sunshine duration
- 11. Hourly real-time transmission
- 12. (i) (a) Yes;
  - (b) Yes (GTS);
  - (ii) Archived on magnetic tape

- Deutsches Hydrographisches Institut
  Bernhard-Nocht-Strasse 78
  2000 Hamburg 4
- 2. Moored toroidal buoy, quasi-stabilized
- Diameter 4.5 m, height 6.0 m, freeboard 2.4 m. Weight approximately 70 tons. The buoy is stabilized by means of a toroidal ring, 10.0 m diameter and 10.4 m below the sea surface. The superstructure is a container (3.3 m high, 2.5 m diameter) carrying a mast with a sensor platform 10 m above the sea surface
- 4. Hull painted yellow, identifier "NSB II, DHI Hamburg" is painted black. Navigation light: 1 second flashing, 3 seconds dark
- 5. -
- 6. German Bight
- Planned for 1983
- Experimental
- 9. Not applicable
- 10. 10 minutes average of wind speed, wind direction, air temperature, barometric pressure, depth to bottom. 4.5 minutes average of water temperature and conductivity 4 m below sea surface. Wave measurement during 20 minutes. Housekeeping data
- 11. (i) UHF communications are through METEOSAT: 402.113583 MHz;
  - (ii) F<sub>1</sub> (PSK; binary coded; 100 bits/second);
  - (iii) 80 watts;
  - (iv) 8 times per day at synoptic hours
- - (ii) Archived on magnetic tape

## Finland

1. Finnish Meteorological Institute Institute of Marine Research Box 503 Box 166 00101 Helsinki 10 00141 Helsinki 14 (Meteorological parameters) (Oceanographic parameters) 2. Automated lighthouses 3. Installed on automated lighthouses, WMO index numbers 5. 6. 65° 23' N 24° 06' E (i) Kemi 64° 20' N 23° 27' E (ii) Ulkokalla (iii) 60° 18' N 19° 08' E (iv) 59° 59' N 25° 36' E Märket (iv) Kallbadagr 1978 7. (i) (ii) 1977 (iii) 1978 (iv) 1978 8. Operational 9. 10. Air temperature, pressure and humidity, wind speed and direction, sea surface temperature and salinity 11. 105 MHz telex communication to FMI; (i) (ii) FM; (iii) 1,5 W; (iv) 5 minutes at 3-hour intervals (synoptic hours)

(a) GTS to Stockholm (meteorological parameters only);

(b) Upon request;

(ii) Magnetic tape

12.

- 1. Direction de la météorologie Etablissement d'études et de recherches météorologiques Magny-les-Hameaux 78470 St Rémy-les-Chevreuses
- Cylindrical buoy with ballast
- 3. Length 10 m. Diameter 3.6 m at water line. Weight 18 T. Height of measuring instruments 5 m  $\,$
- 4. -
- 5. -
- 6. Brest harbour until Spring 1983: latitude 48° 20' N longitude 04° 30' W
- 7. September 1982, temporary for tests
- Experimental
- 9. -
- 10. Wind speed and direction, air and sea surface temperature, pressure at synoptic hours and pressure tendency between the two last synoptic hours;
- 11. (i) 401.65 MHz;
  - (ii) UHF via TIROS satellites and direct reception;
  - (iii) 3 watts;
  - (iv) 0.52 second per minute
- 12. (i) (a) No;
  - (b) Available on request;
  - (ii) Tape, listing

- 2. Spar buoy with a 2 m orientation pale
- 3. Length 6 m. Maximum diameter 56 cm at water line. Overall diameter 20 cm. Measuring instruments at 2.5 m height
- 4. Yellow black inscription on the float: MARISONDE G EERM METEOROLOGIE FRANCE Tél. Paris (3) 043 65 54"
- 5. 1451 1454 1455
- 6. 1451 latitude 55° N longitude 40° W l454 latitude 60° N longitude 35° W l455 latitude 65° N longitude 30° W
- 7. August 1982, expected life time one year
- 8. Operational
- 9. -
- 10. Barometric pressure, sea surface temperature, wind speed, wind direction
- 11. (i) 401.65 MHz;
  - (ii) UHF via TIROS satellites;
  - (iii) 3 watts;
  - (iv) 0.44 second per minute
- 12. (i) (a) Yes;
  - (b) Available on request;
  - (ii) Magnetic tape 800 bpi, punch cards

- 1. Direction de la météorologie Etablissement d'études et de recherches météorologiques Magny-les-Hameaux 78470 St Rémy-les-Chevreuses
- Bi-conical buoys
- 3. Length 8 m. Maximum diameter 1.6 at water line. Weight 2000 kg. Height of measuring instruments 3 m
- 4. Yellow black inscription on the float: "METEO FRANCE Tél. 043 65 54. Ne pas toucher MARISONDE R"
- 5. 01443 01445
- 6. 01443 latitude 43° N longitude 04° E 01445 latitude 43° N longitude 08° E
- 7. 01443 23 February 1982, semi-permanent; 01445 August 1982, semi-permanent
- 8. Operational
- 9. -
- Barometric pressure, air and sea surface temperature, wind speed, wind direction, pressure at synoptic hours and pressure tendency between the last two synoptic hours
- 11. (i) 401.65 MHz;
  - (ii) UHF via TIROS satellites and direct reception for 01445;
  - (iii) 3 watts;
  - (iv) 0.52 second per minute
- 12. (i) (a) Yes;
  - (b) Available on request;
  - (ii) Listings, punch cards, tape

- Direction de la météorologie
   Etablissement d'études et de recherches météorologiques
   Magny-les-Hameaux
   78470 St Rémy-les-Chevreuses
- 2. Semi-hemispheric buoy with a ballast at 1 m depth
- 3. Diameter 1.2 m
- 4. Yellow
- 5. 01462
- 6. Brest harbour: latitude 48° 20' N longitude 40° 30' W
- 7. June 1982, temporary for tests
- B. Experimental
- 9. -
- 10. Wave height and period
- ll. (i) 401.65 MHz;
  - (ii) UHF via TIROS satellites and direct reception;
  - (iii) 3 watts;
  - (iv) 0.44 second per minute
- L2. (i) (a) No;
  - (b) Available on request;
  - (ii) Tape, listing

- 1. Direction de la météorologie Etablissement d'études et de recherches météorologiques Magny-les-Hameaux 78470 St Rémy-les-Chevreuses
- 2. Spar buoys
- 3. Diameter 20 cm with bi-conical float 56 cm in diameter. Height 3 m. Droque 15  $\mathrm{m}^2$  at 1000 m depth
- 4. Yellow black inscription on the float: "MARISONDE B EERM METEOROLOGIE FRANCE Tél. Paris (3) 043 65 54"
- 5. 1470 1471
- 6. 1470 latitude 55° N longitude 40° W 1471 latitude 60° N longitude 35° W
- 7. August 1982, expected life time one year
- 8. Operational
- 9. -
- 10. Barometric pressure, sea surface temperature
- 11. (i) 401.65 MHz;
  - (ii) UHF via TIROS satellites;
  - (iii) 3 watts;
  - (iv) 0.36 second per minute
- 12. (i) (a) Yes;
  - (b) Available on request;
  - (ii) Magnetic tape 800 bpi, punch cards

- 2. Spar buoys
- 3. Diameter 20 cm with bi-conical float 56 cm in diameter. Height 3 m.
- 4. Yellow black inscription on the float: "MARISONDE B 1043 EERM METEOROLOGIE FRANCE Tél. Paris (1) 043 65 54"
- 5. 1043 1057
- 6. 1043 latitude 58° N longitude 30° W 1057 latitude 50° N longitude 30° W
- 7. 8 and 6 August 1980, expected life time one year
- 8. Operational
- 1043 slow eastward drift, describing circles
   1057 eastward drift, 4 km per day
- 10. Barometric pressure, sea surface temperature
- 11. (i) 401.65 MHz;
  - (ii) UHF via TIROS satellites;
  - (iii) 3 watts;
  - (iv) 0.36 second per minute
- 12. (i) (a) Yes;
  - (b) Available on request;
  - (ii) Magnetic tape 800 bpi, punch cards

- Direction de la météorologie Etablissement d'études et de recherches météorologiques Magny-les-Hameaux 78470 St Rémy-les-Chevreuses
- Bi-conical spar-buoy
- 3. Length 8 m. Maximum diameter 1.6 at water line. Overall diameter 0.35 m. Weight 2000 kg. Ballast 1100 kg. Height of measuring instruments 3 m
- 4. Yellow black inscription on the float: "METEO FRANCE Tél. 043 65 54. Ne pas toucher MARISONDE R 04"
- 5. 01441
- 6. Latitude 48.6° N longitude 12.5° W
- 7. 28 July 1981, semi permanent
- 8. Operational
- 9. -
- 10. Atmospheric pressure, air and sea surface temperatures, wind speed and direction, atmospheric pressure at synoptic times and pressure tendency
- 11. (i) 401.65 MHz;
  - (ii) UHF via TIROS satellites;
  - (iii) 3 watts;
  - (iv) 0.52 second per minute
- 12. (i) (a) Yes;
  - (b) Available on request;
  - (ii) Listings, punch cards

### Ireland

- Fixed gas platform
- 3. -
- 4. -
- 5. Kinsale Head A
- 6. 51° 22'N 07° 57'W
- 7. -
- 8. Operational
- 9. -
- 10. Wind speed and direction (61 m A.S.L.). Atmospheric pressure (32 m A.S.L.). Air temperature (43 m A.S.L.). Significant wave height and period
- 11. (i) Dedicated telephone line;
  - (ii) -;
  - (iii) -;
  - (iv) At synoptic hours
- 12. (i) On GTS;
  - (ii) Tabulated records (from Meteorological Service)

#### Japan

- 1. Marine Department
   Japan Meteorological Agency
  3-4 Otemachi-1, Chiyoda-ku
   Tokyo 100
- 2. Moored buoys
- Discus shape
- 4. Hull painted with yellow and orange with ODAS-J number. Radar reflector and marker light
- 5. ODAS-J3 21003 ODAS-J4 22001 ODAS-J6 21002 ODAS-J7 21001 ODSS-J8 21004
- 6. ODAS-J3 25° 40° N 135° 55' E
  ODAS-J4 28° 20' N 126° 05' E
  ODAS-J6 37° 45' N 134° 23' E
  ODAS-J7 38° 30' N 145° 30' E
  ODAS-J8 29° 00' N 135° 00' E
- 7. ODAS-J3 6 August 1973, semi-permanent
  ODAS-J4 5 September 1974, semi-permanent
  ODAS-J6 10 November 1976, semi-permanent
  ODAS-J7 7 July 1978, semi-permanent
  ODAS-J8 9 June 1982, semi-permanent
- 8. Operational
- 9. -
- 10. Wind speed and direction, dry and wet bulb temperature, air pressure, solar radiation, water temperature (sea surface and sub-surface), wave height and period, sea surface current speed and direction, sea surface salinity
- 11. (i) ODAS-J3 8330.80 and 12482.30 kHz, channel 8/9 and 12/9, 402.1286 MHz ODAS-J4 6244.90 and 12482.30 kHz, channel 6/1 and 12/9, ODAS-J6 4162.90 and 6244.90 kHz, channel 4/1 and 6/1, ODAS-J7 4162.90 and 8330.80 kHz, channel 4/1 and 8/9, ODAS-J8 8330.80 and 12482.30 kHz, channel 8/9 and 12/9, 402.1406 MHz;
  - (ii) HF: F1 (FSK), UHF: F1 (PSK);
  - (iii) 100 watts HF, 20 watts UHF;
  - (iv) Every 3 hours (00, 03, 06, 09, 12, 15, 18 and 21 GMT)
- - (ii) Magnetic tapes and printed material

### Japan

- Hydrographic Department
   Maritime Safety Agency
   3-1 Tsukiji-5, Chuo-ku
   Tokyo 100
- Drifting (satellite-tracked) buoys
- 3. Bi-conical with floating collar (2025, 2027, 2028, 2029)\*. Cylindrical with conical antenna cover (2034, 2035)\*
- 4. Hull painted in orange with owner's buoy number, name and address
- 5. -
- 6. East of Formosa (2029) Central North Pacific (2025) South of Japan (2027, 2028, 2034, 2035)
- 7. 2025 and 2029, February 1981; 2027, March 1982 2028, 2034 and 2035, August 1982 (planned)
- 8. Operational
- 9. On Kuroshio Current System. The speed is variable from zero through five knots
- Sea surface temperature
- 11. (i) 401.65 MHz (Argos System);
  - (ii) UHF;
  - (iii) 2 watts;
  - (iv) 1 second/minute
- (i) (a) Not transmitted over the GTS;
  - (b) Through IODE channel and bi-lateral arrangements;
  - (ii) Magnetic tapes and charts

<sup>\*</sup> Buoy numbers assigned by owner

- North Sea Directorate
   P.O. Box 5807
   2280 HV Rijswijk
- 2. Production oil platform
- Fixed platform
- 4. AUK "Alpha"
- Not applicable
- 6. 56° 24' N 02° 04' E
- 7. May 1979: permanent
- 8. Operational
- 9. Not applicable
- 5-minute mean barometric pressure, water pressure, wind speed and direction, air temperature, sea water temperature, significant wave height, low frequency wave energy

30 minute mean wave energy, 30 minute actual and mean max. wind speed, 30 minute wave spectrum points, housekeeping data

- 11. (i) HF: 292.69 MHz, SSB;
  - (ii) TOR/RQ, FSK, 100 bps, upcontrolled communication;
  - (iii) 250 watts;
  - (iv) Continuous
- 12. (i) (a) Yes;
  - (b) -;
  - (ii) Magnetic tapes, 1600 bpi, hourly values

- 1. North Sea Directorate P.O. Box 5807 2280 HV Rijswijk
- Production gas platform
- Fixed platform
- 4. "K-13-A"
- 5. Not applicable
- 6. 53° 13' N 03° 13' E
- 7. 1976: permanent
- 8. Operational
- 9. Not applicable
- 10. Wind speed and direction, atmospheric pressure, air temperature, sea water temperature, wave height, water level, housekeeping data
- 11. Dedicated telephone line;
- 12. (i) (a) Yes; (b) -;
  - (ii) Magnetic tapes, 1600 bpi, hourly values

- North Sea Directorate P.O. Box 5807 2280 HV Rijswijk
- 2. Experimental platform
- 3. Fixed platform
- 4. "Meetpost Noordwijk". Platform painted in red and white blocks. Horn and lights Morse letter "u"
- 5. Not applicable
- 6. 52° 16' N 04° 18' E
- 7. 1975: permanent
- Experimental
- 9. Not applicable
- Wind speed and direction, air temperature, sea water temperature, wave height, water level,
- 11. (i) UHF 450.910 MHz;
  - (ii) FM;
  - (iii) 0.4 watts;
  - (iv) Continuous
- 12. (i) (a) No; (b) -;
  - (ii) Paper tapes

- DGSM
  P.O. Box 5817
  2280 HV Rijswijk
- Navigation platform
- Fixed platform
- 4. "GOEREE". Platform painted in red and white blocks. Horn and lights Morse letter "u"
- Not applicable
- 6. 51° 55' N 03° 40' E
- 7. 1972: permanent
- 8. Operational
- 9. Not applicable
- 10. Wind speed and direction, air temperature, sea water temperature, wave height, water level,
- 11. (i) UHF 450.910 MHz / 460.690 MHz;
  - (ii) FM;
  - (iii) 2.4 watts / 5 watts;
  - (iv) Continuous
- 12. (i) (a) Yes; (b) -;
  - (ii) Magnetic tapes, 1600 bpi, hourly values

- 1. Mobil Exploration Norway Inc.
- 2. Production oil platform
- 3. Fixed platform, highest point approximately 110 m
- 4. -
- 5. Statfjord "A"
- 6. 61.2° N 01.8° E
- 7. -
- 8. Operational
- 9. -
- 10. Wind direction and speed (speed reduced to 10 m a.s.l.). Temperature and relative humidity. Air pressure (reduced to sea level). Sea surface temperature (not on tape). Waves (from buoy). Current (only on tape)
- 11. (i) Telephony;
  - (ii) -;
  - (iii) -;
  - (iv) All synoptic hours
- 12. (i) (a) Yes;
  - (b) -1
  - (ii) Magnetic tape

- Phillips Petroleum Co. Norway
   Platform complex
   Fixed platform, highest point approximately 90 m
   Ekofisk "H"
   56.5° N 03.2° E
- 8. Operational
- 9. -

7.

- 10. Wind direction and speed (speed reduced to 10 m a.s.1.). Temperature and relative humidity. Air pressure (reduced to sea level). Sea surface temperature at 5 m depth. Waves (from buoy). Current (only on tape)
- (i) Radio telex or telephony;
  (ii) -;
  (iii) -;
  (iv) All synoptic hours

- 1. The Norwegian Meteorological Institute / Norwegian Polar Research Institute
- 2. Land-based automatic meteorological station on Kongsöya, Svalbard
- 3. Mounted in a hut, about 6 m above sea level
- 4. -
- 5. WMO station No. 63005 Argos ID 9401
- 6. 78°55' N 28°08' E
- 7. In operation from August 1981. Intended to be operating for some years
- Operational. Data to be used in the daily weather service and for climatological purposes
- 9. -
- 10. Air pressure (60 sec mean), wind speed, air temperature, sub-surface temperature (1 m beneath surface) and some housekeeping data
- 11. (i) 401.66 MHz through satellite (the Argos System);
  - (ii) pmc;
  - (iii) 2.5 watts;
  - (iv) Approximately every 60 seconds
- 12. (i) (a) Yes;
  - (b) -;
  - (ii) Magnetic tape

- 1. The Norwegian Meteorological Institute / Norwegian Polar Research Institute
- 2. Land-based automatic meteorological station on Phippsöya, Svalbard
- 3. Mounted in a small hut, about 4 m above sea level
- 4. -
- 5. WMO station No. 63001 Argos ID 9400
- 6. 80°42' N 20°53' E
- 7. In operation from 14 August 1980, to be operated continuously for some years by replacing batteries every year
- 8. Operational. Data to be used in the daily weather service and for climatological purposes
- 9. -
- 10. Air pressure (60 sec mean), wind speed, air temperature, sub-surface temperature and some housekeeping data
- 11. (i) 401.66 MHz through satellite (the Argos System);
  - (ii) pmc;
  - (iii) 2.5 watts;
  - (iv) Approximately every 60 seconds
- 12. (i) (a) Yes;
  - (b) = i
  - (ii) Magnetic tape

- 1. The Norwegian Polar Research Institute / Polar Science Center, Seattle
- 2. An automatic station at the ice-drift station FRAM IV
- 3. Mounted in an ICEX-capsule, approximately 90 cm high, egg-shaped
- 4. -
- 5. WMO station No. 63518
- 6. 82.6° N 06.9° E
- 7. In operation from 8 May 1982
- 8. Operational. To be used in the daily weather service and for climatological purposes
- 9. -
- 10. Air pressure (60 sec mean), air temperature, sea temperature, water temperatures at 11 different levels down to 100 m depth, as well as some housekeeping data
- 11. (i) 401.66 MHz through satellite (the Argos System);
  - (ii) pmc;
  - (iii) 2.5 watt;
  - (iv) Approximately every 60 seconds
- 12. (i) (a) Yes; (b) -;
  - (ii) Magnetic tape

- 1. The Norwegian Polar Research Institute / Polar Science Center, Seattle
- 2. Two ice-drift based automatic stations
- 3. Mounted in an ICEXAIR-capsule, approximately 90 cm high, egg-shaped
- 4. -
- 5. (a) WMO station No. 63517
  - (b) WMO station No. 64513
- 6. (a) Deployed by parachute in position 84° N 50.2° E
  - (b) Deployed by parachute in position 84° N 20.3° W
- 7. In operation from 27 April 1982
- 8. Operational. To be used in the daily weather service and for climatological purposes
- 9. -
- 10. Air pressure (60 sec mean), air temperature, some housekeeping data
- 11. (i) 401.66 MHz through satellite (the Argos System);
  - (ii) pmc;
  - (iii) 2.5 watts;
  - (iv) Approximately every 60 seconds
- 12. (i) (a) Yes;
  - (b) -;
  - (ii) Magnetic tape

1.	Norwegian Meteorological	Institute	(in	co-operation	with)	Eidsvoll	Electronics	A/S
	P.O. Box 320					P.O. Box	38	
	Blindern, Oslo 3					Eidsvoll		

- 2. Automatic and manual "hybrid" station on the ship: S/S BERGE VIKING, participating in the "Round the World Race 1981/82"
- 3. -
- 4. -
- 5. WMO station No. 63503
- 6. Left Portsmouth August 1981 to Cape Town, Auckland, Rio de Janeiro and returned Portsmouth late March 1982
- 7. Terminated April 1982
- 8. -
- 9. -
- 10. Barometric air pressure (60 sec mean), air and sea temperature, wind speed and direction, wave height and some housekeeping data
- 11. (i) 401.66 MHz through satellite (the Argos System);
  - (ii) pmc;
  - (iii) 2.5 watts;
  - (iv) Approximately every 60 seconds
- 12. (i) (a) Yes;
  - (b) -;
  - (ii) Paper print out

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    Norwegian Meteorological Institute
    P.O. Box 320
    Blindern, Oslo 3
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- Drifting buoys (FGGE type)
- 0.7 m diameter, 2 m high, approx. 1 m above sea level
- 4. Fluorescent orange and red vertical bands
- (a) WMO station 63510 Argos ID 3702;(b) WMO station 64506 Argos ID 3710;
  - (c) WMO station - Argos ID 3712;
  - (d) WMO station 64509 Argos ID 3714;
  - (e) WMO station 63506 Argos ID 3715;
  - (f) WMO station 63507 Argos ID 3716;
  - (g) WMO station 63508 Argos ID 3717;
  - (h) WMO station 63509 Argos ID 3718;
  - (i) WMO station 63511 Argos ID 3719;
  - (j) WMO station 63514 Argos ID 3720;
  - (k) WMO station 64511 Argos ID 3721;
  - (1) WMO station - Argos ID 3722;
  - (m) WMO station 63510 Argos ID 3723
- (a) Deployed in weather ship pos. M (66°N 02°E) during monthly vacancies of station;
  - (b) Deployed 63°15' N 28°03' W;
  - (c) Reserve see 7 (c);
  - (d) Deployed 64 83' N 06 95' W;
  - (e) Deployed 73 45' N 27 10' E;
  - (f) Deployed 71°50' N 14°83' E;
  - (g) Deployed 73°51' N 06°45' E;
  - (h) Deployed 72°70' N 34°00' E;
  - (i) Deployed 72'00' N 01'20' E;
  - (j) Deployed 68°56' N 04°00' E;
  - (k) Deployed 68 00' N 01 80' E;
  - (1) Reserve see 7 (1);
  - (m) Deployed in weather ship pos. M (66°N 02°E) during monthly vacancies of station
- 7. (a) Approximately once per month. Recovered when weather ship returns to station;
  - (b) Deployed 16 October 1981. Recovered 13 April 1982 in pos. 64°01'N 23°86'W;. Will be re-deployed later, possibly south-west of Iceland;
  - (c) Will be deployed later, approximately 68-69°N 10°W;
  - (d) Deployed 14 April 1982. Stopped transmitting immediately after deployment;
  - (e) Deployed 2 April 1982. Stopped transmitting 23 April 1982;
  - (f) Deployed 11 April 1982. Recovered 22 July 1982. Will be re-deployed August/ September 1982 approximately 72°N 02 04°W;
  - (g) Deployed 11 April 1982;
  - (h) Deployed 25 March 1982. Recovered 20 July 1982. Will be re-deployed August/ September 1982, approximately 71-72°N 35-36°E;
  - (i) Deployed 10 April 1982. Stopped transmitting 12 May 1982;
  - (j) Deployed 7-8 April 1982. Recovered 22 July 1982. Will be re-deployed August/September 1982, approximately 71-71°N 06-08°E;

- (k) Deployed 8 April 1982;
- (1) Will be deployed August/September approximately 69°-70°N 00-02'W;
- (m) Since May 1982 replacement buoy at weather ship station M pos. 66°N 02°E. Will be deployed in August/September 1982 south-east of Iceland
- 8. Operational/experimental
- 9. -
- 10. Barometric air pressure (60 sec mean), sea surface temperature. Some house keeping data
- 11. (i) 401.66 MHz through satellite (the Argos System);
  - (ii) pmc;
  - (iii) 2.5 watts;
  - (iv) Approximately every 60 seconds
- 12. -

- Continental Shelf Institute Hakon Magnussonsgt. 1 B 7000 Trondheim
- 2. Moored cylindrical buoy
- 0.7 m diameter, 5.5 m high, measuring height 2.5 m above sea surface 3.
- Fluorescent yellow. Yellow light flash during hours of darkness, 20 flashes per 4. minute
- 5. Norsk Hydro A/S - WMO station 63516
- 71.4° N 18.0° E 6.
- 7. April 1982
- Operational 8.
- 9.
- 10. Barometric pressure, air temperature, sea temperature at 2.5 m
- 401.66 MHz through satellite (the Argos System); 11. (i)
  - pmc; (ii)
  - (iii) 2.5 watts;
  - 60 seconds (iv)
- 12. (i) (a) Yes;
  - (b) -;
  - (ii) Paper printout, tapes with satellite position data from Service Argos

- Continental Shelf Institute Hakon Magnussonsgt. 1 B 7000 Trondheim
- 2. Moored discus buoy
- 2.75 m diameter, 6 m high, with mast 3 m, air inlet for pressure measuring and air temperature measuring height 2 m above sea level. Wind measuring height 4 m
- 4. Fluorescent yellow above sea surface. White light flash during night hours, 20 flashes per minute
- 5. Marked ODAS 490 493 WMO station 63512
- 6. 66'20' N 09'30' E
- 7. Deployed primo June 1981
- 8. Operational
- 9. -
- 10. Pressure, air and sea temperature, wind direction, wind speed and some housekeeping data transmitted. Wave measurement (heave, pitch and roll) recorded on magnetic tape
- 11. (i) 401.66 MHz through satellite TIROS N and NOAA;
  - (ii) pmc;
  - (iii) 2.5 watts;
  - (iv) Approximately every 58 seconds
- 12. (i) (a) Yes;
  - (b) -;
  - (ii) Magnetic tape in buoy (magnetic tapes from Service Argos)

- 1. Continental Shelf Institute Hakon Magnussonsgt. 1 B 7000 Trondheim
- Moored discus buoy
- 2.5 m diameter, 6 m high, with mast 3 m, air inlet for pressure measuring and air temperature measuring height 2 m above sea level. Wind measuring height 4 m
- Fluorescent yellow above sea surface. White light flash during night hours, 20 flashes per minute
- 5. Marked ODAS 490 493 WMO station 63513
- 6. 65° N 07.5° E
- 7. Deployed medio March 1980
- Operational
- 9. -
- 10. Pressure, air and sea temperature, wind direction, wind speed, wave spectra, wave height and some housekeeping data transmitted. All data recorded on magnetic tape
- 11. (i) 401.66 MHz through satellite TIROS N and NOAA;
  - (ii) pmc;
  - (iii) 2.5 watts;
  - (iv) Approximately every 58 seconds
- 12. (i) (a) Yes;
  - (b) -;
  - (ii) Magnetic tape in buoy (magnetic tapes from Service Argos

- 1. Continental Shelf Institute Hakon Magnussonsgt. 1 B 7000 Trondheim
- 2. Free drifting catamaran buoy
- 1 m long, 0.5 m wide and 0.35 m high
- 4. Fluorescent yellow. White light flash during night hours, 20 flashes per minute
- 5. Marked "IKU drifting buoy"
- 6. (a) 66°5' N 09° E
  - (b) 66°5' N 10°10' E
  - (c) 71°30' N 21° E
  - (d) 71°24' N 18° E
  - (e) 60°40' N 02°45' E
- 7. (a) February 1982
  - (b) February 1982
  - (c) April 1982 August 1982
  - (d) August 1982
  - (e) June 1982
- 8. Operational
- When the buoy reaches the coast it will be brought to the position of the deployment and re-deployed
- 10. Position of the buoy and some housekeeping data
- 11. (i) 401.66 MHz through satellites TIROS-N and NOAA;
  - (ii) pmc;
  - (iii) Approximately 2.5 watts;
  - (iv) Transmits approximately every 68 seconds
- 12. (i) -;
  - (ii) Magnetic tape with Decca position data in buoy. Tapes with satellite position data from Service Argos.

- 1. Continental Shelf Institute
  Hakon Magnussonsgt. 1 B
  7000 Trondheim
- 2. Moored discus buoy
- 3. 2.75 m diameter, 6 m high, with mast 3 m, air inlet for pressure measuring and air temperature measuring height 2 m above sea level. Wind measuring height 4 m
- 4. Fluorescent yellow above sea surface. White light flash during night hours, 20 flashes per minute
- 5. Marked ODAS 490 493
- 6. 05'4' N 04'15' W
- 7. Deployed primo December 1981
- 8. Operational
- 9. -
- 10. Pressure, air and sea temperature, wind direction, wind speed and some housekeeping data transmitted. Wave measurement (heave, pitch and roll (recorded on magnetic tape
- 11. (i) 401.66 MHz through satellites TIROS-N and NOAA;
  - (ii) pmc;
  - (iii) 2.5 watts;
  - (iv) Approximately every 58 seconds
- 12. (i) -;
  - (ii) Magnetic tape in buoy (Magnetic tapes from Service Argos)

- The Chr. Michelsen Institute Fantoftveien 38 5036 Fantoft
- Moored ODAS
- 3. Cylindrical ODAS, 1 m diameter, 7 m high, observation reference 2,5 m above sea level
- 4. Colour above sea surface yellow
  Colour below sea surface green
  White light flash during night hours
  Approx. 20 flashes per minute
- 5. Marked ODAS 451. WMO station 64514
- 6. 61'5' N 13'5' W
- 7. 11 November 1981, till end of 1983
- 8. Operational
- 9. -
- 10. Air pressure, wind speed, wind direction, air temperature, sea surface temperature
- ll. (i) 4.1 Mc;
  - (ii) FSK two tone;
  - (iii) Approximately 80 watts;
  - (iv) At three-hourly intervals (synoptic hours)
- 12. (i) (a) GTS (SHIP Code);
  - (b) -;
  - (ii) Available on request on tape

- Institute of Marine Research Nordnesparken 2 N-5011 Bergen
- 2. Six drifting buoys drogued having the same characteristics deployed as three different projects
- 3. Spherical, 0.8 m diameter of the ICEX type
- 4. Fluorescent orange marked "Drifting buoy, Institute of Marine Research, BERGEN-NORWAY"
- 5. -
- 6. Project No. 1 70°09,5 N 17°56,4 E 70°15,5 N 17°29,6 E
  Project No. 2 At Haltenbanken, the Norwegian continental shelf
  Project No. 3 Northern Barents Sea
- 7. Project No. 1 released 19 April 1982 for two months; Project No. 2 released 22 June for two weeks Project No. 3 released August 1982 for one month
- Operational
- 9. Northward in the Norwegian coastal current and in the Norwegian current. Speed: 10-50 cm/s
- 10. Position only
- 11. (i) 401,65 MHz;
  - (ii) Argos System;
  - (iii) -;
  - (iv) Every 60 seconds
- 12. (i) (a) No; (b) On request;
  - (ii) Magnetic tape and charts

#### Portugal

- 1. Instituto Nacional de Meteorologia e Geofisica Rua C do Aeroporto de Lisboa 1700 Lisbon
- Moored waverider
- 3. Spherical shell with a diameter of 0.7 m
- 4. Diameter over fender of 0.78 m, painted vertical red and yellow stripes with light flashing three times in 5 seconds every 15 seconds
- 5. ODAS 00 to 49 CSM INMG PORTUGAL
- 6. (i) 38° 46' 48" N 09° 31' 30" W ROCA 2; (ii) 37° 55' 52" N 08° 53' 44" W SINES 1
- 7. (i) 20 October 1980 for indefinite operation;(ii) 19 November 1980 for indefinite operation
- 8. Operational
- 9. Not applicable
- 10. Waves
- 11. (i) Buoy (i) 27.505 MHz channel 1; Buoy (ii) 27.715 MHz channel 9;
  - (ii) VHF;
  - (iii) 0.17 watts ± 20% range ~ 30 miles;
  - (iv) Continuous
- 12. (i) (a) Yes;
  - (b) Yes by bilateral arrangements;
  - (ii) Chart rolls, magnetic tapes, flexible disk

#### Qatar

- 1. Meteorological Department
  Ministry of Communication and Transport
  Civil Aviation Department
  P.O. Box 3000
  Doha
- 2. Datawell waverider buoys
- 3. Spherical shell with diameter of 0.7 m protected by anti-spin triangle. 2 m whip antenna mounted above light
- 4. Upper hemisphere painted international safety orange with wording: DANGER KEEP CLEAR in English and Arabic. Group of 5 yellow flashes every 20 seconds
- 5. -
- 6. (i) 25° 17.55' N 51° 38.65' E Approximately 9 cables SW of outer channel entrance at Doha Port; (ii) 24° 52.80' N 50° 34.00' E Approximately 2 cables SSE of south anchorage at Umm-Said Port
- (i) 31 March 1980 for indefinite operation;
  - (ii) 07 December 1980 for two years
- 8. Operational
- 9. Not applicable
- 10. Wave height and period
- 11. (i) Buoy (i) 27.505 MHz. Buoy (ii) 27.745 MHz;
  - (ii) VHF;
  - (iii) 80 watts ± 20%. Range over the sea 50 km;
  - (iv) Continuous
- 12. (i) (a) Not yet implemented;
  - (b) Bilateral arrangements;
  - (ii) Chart rolls, tabulated 3 hourly record sheets

#### Sweden

- Swedish Meteorological and Hydrological Institute P.O.Box 923 S-601 19 Norrköping
- 2. Automatic observation stations at caisson lighthouse towers
- 3. Meteorological sensors are mounted at the top of the lighthouses and oceanographical sensors in the vicinity of the lighthouses
- 4. Spar buoys and lighthouses
- 5. -

6.	Station No	0.		Posit	ion		Established
and	2189		65°	20'N	22°	45'E	1980
7.	2289		63'	20 ' N	20°	11'E	1980
	2451		60°	53'N	17°	55'E	1971
	2499		59°	09'N	19°	08'E	1975
	2583		58°	36'N	17°	28'E	1975
	2685		56°	04'N	16°	41 'E	1978
	2517		57°	36'N	11°	38'E	1977

- 8. Operational
- 9. -

10.	Parameters			Station No. 2451 2583				2517
			2289		2499		2685	
	Wind speed and direction	Х	х	Х	Х	х	Х	Х
	Air temperature	X	X	Х	Х	Х	Х	Х
	Air humidity	X	X	X	X	X	X	X
	Air pressure			X	Х	X	X	X
	Salinity				Х	Х	Х	
	Water temperature				Х	X	Х	X
	Water level					Х		X
	Significant wave height				Х		Х	X
	Mean wave period				Х		X	X
	Spectral wave data				Х		X	Х

- 11. (i) 380 MHz radio link and/or switched public telephone network;
  - (ii) -,
  - (iii) -;
  - (iv) Hourly
- - (ii) Magnetic tapes

1. Department of Industry
Abell House
John Islip Street
London SWIP 4LN

Meteorological Office London Road Bracknell, Berks. RG12 2SZ

- 2. Moored discus buoy
- 3. 7.52 m diameter
- 4. Hull and mast painted in bands of red and yellow. Navigation light givin 8 white flashes in 8 seconds followed by 12 seconds of darkness (20-second period). Fog signal. Radar reflector (All to IOC/IMCO ODAS Safety Provisions London 1972)
- 5. 2N102
- 6. 48° 39'N 08° 53'W
- 7. June 1978 until Spring 1982
- 8. Operational
- 9. -
- 10. 10-minute mean windspeed and direction at 5.5 m and 8.5 m, with maximum gust in last hour at 8.5 m asl. Atmospheric pressure. Sea temperature at lm. Air temperature and relative humidity at 5.5 m asl
- 11. (i) 4163.35 4163.65 kHz, channel 4/3;
  - (ii) HF multi shift frequency keying;
  - (iii) 5 watts;
  - (iv) HH HH + 5 mins every hour, HH + 05 - HH + 25 mins every third hour (00, 03, 06 etc. for raw wave data)
- 12. (i) (a) Yes;
  - (b) Through GTS and MIAS;
  - (ii) Magnetic tape, charts

- Meteorological Office (Met 0 16) Beaufort Park Easthampstead Wokingham, Berkshire
- 2. Production oil platform
- Fixed platform
- 4. Beryl "Alpha"
- Not applicable
- 6. 59° 32'N 01° 28'E
- 7. December 1981. Permanent
- 8. Operational
- 9. Not applicable
- 10. 10-minute windspeed and direction at 97 m, air temperature at 55 m, relative humidity, atmospheric pressure
- 11. (i) Telephone line via platform PBX;
  - (ii) Not applicable;
  - (iii) Not applicable;
  - (iv) Not applicable;
- 12. (i) (a) No; (b) No;
  - (ii) Magnetic tapes

Meteorological Office (Met 0 16) and Beaufort Park Easthampstead Wokingham, Berkshire

The National Maritime Institute St. John's Street Hythe Southampton; Hants.

- Marine data station
- Fixed platform
- 4. None
- 5. None
- 6. 50° 42'N 01° 40'W
- October 1981. Permanent
- 8. Operational
- 9. Not applicable
- 10. 10-minute mean windspeed and direction, air temperature, sea temperature, atmospheric pressure, relative humidity. Tide height, significant wave height and period
- 11. (i) Dedicated telephone line;
  - (ii) Not applicable;
  - (iii) Not applicable;
  - (iv) Hourly
- 12. (i) (a) No;
  - (b) No;
  - (ii) Magnetic tape, charts

- Meteorological Office (Met 0 16) 1. Beaufort Park Easthampstead Wokingham, Berkshire
- 2. Production gas platform
- 3. Fixed platform
- AMOCO 49/27 Alpha 4.
- 5. Not applicable
- 53° 03' N 02° 14' E 6.
- 7. June 1981. Permanent
- Operational 8.
- 9. Not applicable
- 10-minute windspeed and direction; maximum gust in last hour, atmospheric 10. pressure, air temperature, relative humitidy
- 11. (i) Dedicated telephone line;
  - (ii) Not applicable;
  - (iii) Not applicable;
  - (iv) Not applicable
- (a) Yes; (b) No; 12. (i)

  - (ii) Charts

- Meteorological Office (Met 0 16) Beaufort Park Easthampstead Wokingham, Berkshire
- Production oil platform
- Fixed platform
- 4. Piper "Alpha"
- Not applicable
- 6. 58° 28' N 00° 11'E
- April 1981. Permanent
- 8. Operational
- 9. Not applicable
- 10. 10-minute mean windspeed and direction, maximum gust in last hour, atmospheric pressure, air temperature, relative humidity
- 11. (i) Dedicated telephone line;
  - (ii) Not applicable;
  - (iii) Not applicable;
  - (iv) Not applicable
- 12. (i) (a) Yes;
  - (b) No;
  - (ii) Charts

- 1. Meteorological Office (Met 0 16)
   Beaufort Park
   Easthampstead
   Wokingham, Berkshire
- Instrument tower
- Fixed tower
- 4. None
- 5. None
- 6. Muckle Holm Island, Shetland: 60° 35' N 01° 16' W
- 7. September 1978
- 8. Operational
- 9. Not applicable
- 10. 10-minute mean windspeed and direction, maximum gust in last hour, air temperature, relative humidity, visibility
- 11. (i) VHF 153.75 MHz;
  - (ii) FSK PCM;
  - (iii) 2 watts;
  - (iv) 20 seconds;
- 12. (i) (a) No;
  - (b) No; (ii) Charts

- Meteorological Office (Met 0 16)
  Beaufort Park
  Easthampstead
  Wokingham, Berkshire
- Instrument tower
- Fixed tower
- 4. None
- 5. None
- 6. Sule Skerry Island 59° 05'N 04° 25'W
- 7. September 1981
- 8. Operational
- 9. Not applicable
- 10. 10-minute windspeed and direction at 8 m, maximum gust in last hour, air temperature at 5 m, atmospheric pressure, relative humidity
- 11. (i) VHF 153.50 MHz;
  - (ii) FSK PCM;
  - (iii) 2 watts;
  - (iv) 20 seconds;
- 12. (i) (a) Yes; (b) No;
  - (ii) Magnetic tapes

- 1. Meteorological Office (Met 0 16)
   Beaufort Park
   Easthampstead
   Wokingham, Berkshire
- 2. Navigation tower
- 3. Fixed tower
- 4. None
- 5. None
- 6. 51° 40'N 01° 06'E
- 7. September 1979. Permanent
- Operational
- 9. Not applicable
- 10. 10-minute mean windspeed and direction, air temperature, atmospheric pressure, relative humidity, visibility all at 6 m, sea temperature
- 11. (i) VHF 153.75 MHz;
  - (ii) FSK PCM;
  - (iii) 2 watts;
  - (iv) 23 seconds;
- 12. (i) (a) Yes; (b) No;
  - (ii) Magnetic tapes

# United Kingdom/Norway/Iceland

Meteorological Office (Met 0 16) Beaufort Park Easthampstead Wokingham, Berkshire The Christian Michelsen Institute Fantoftvegen 38 N-5036 Fantoft Norway

The Icelandic Meteorological Office Bustaoavegur 105 Reykjavik Iceland

- 2. Moored cylindrical buoy
- 3. 1 m diameter, 7 m high, measuring height 2.5 m above sea surface
- Fluorescent yellow above sea surface, white light flash during night hours.
   Twenty flashes per minute
- 5. Marked ODAS 451
- 6. 61.6° N 13.4° W
- 7. Re-deployed November 1981, broke adrift December 1981, re-deployed February 1982
- 8. Operational
- 9. Not applicable
- 10. Windspeed and direction, air temperature, sea temperature, atmospheric pressure
- 11. (i) 4.1641 MHz;
  - (ii) FSK;
  - (iii) 90 watts falling to 60 watts with battery drain;
  - (iv) Hourly at HH-56 for 60 seconds;
- 12. (i) (a) Yes;
  - (b) No;
  - (ii) Magnetic tapes

# United States of America

- 1. U.S. Goast Guard (G-010)
  Washington, D.C. 20593
- Drogued, satellite-tracked drifting buoys
- 3. Spar-type buoy with window shade drogue (length 3 m, width 1 m approximately)
- 4. International orange and black no lights or audible signals
- Not applicable
- 6. \*
- 7. \*
- 8. Operational
- 9. \*
- 10. Sea tempoerature
- 11. (i) 401.65 MHz;
  - (ii) UHF;
  - (iii) 1.5 to 2 watts;
  - (iv) Once per minute;
- 12. (i) (a) No;
  - (b) Upon written request;
  - (ii) Computer printouts

Position	Date	Duration	Anticipated track (dir)	Speed
49 N 49.933 W	3.11.1982	6 months	SE	0.5 m/s
49 N 48.683 W	3.11.1982	6 months	SE	0.5 m/s
49 N 50.550 W 49 N 49.933 W	4.I.1982 4.I.1982	6 months 6 months	SE SE	0.5 m/s 0.5 m/s
46 N 47.333 W 46.333 N 45 W	5.IV.1982 5.IV.1982	6 months 6 months	s s	l m/s l m/s

- NOAA/National Ocean Service Coastal Waves Program Rockville, Maryland 20852
- 2. Spherical moored buoy.
- 3. 44080 is a .9 meter diameter sphere, the weight is approximately 200 kilograms.
- 4. Zenon flashing light with one flash every two seconds during ten seconds: repeats every twenty seconds. Bottom half of sphere is painted white. The top half alternating vertical stripes of international orange and yellow.~ Identifier message is written in red and black on top half.
- 5. (i) 44080
  - (ii) 44081
  - (iii) 44083
  - (iv) 44084
  - (v) 44085
- 6. (i) Latitude 36<sup>0</sup> 59' North Longitude 75<sup>0</sup> 40' West
  - (ii) 38º 12' " 74º 58' "
  - (iii)  $40^{\circ} 30' 72^{\circ} 30'$
  - (iv) 39° 0' " 73° 0' "
  - (v) 40° 0' " ~ 71° 30'
- 7. (i) Test station, buoy deployed 20 May 1982.
  - (ii) ,(iii), (iv), (v) planned deployment, July 1982.
- 8. (i) Yes
  - (ii) No
- 9. Not applicable.
- 10. Significant wave height, average wave period, spectral densities, sea surface elevations from the mean (wave period) at 1/.5 H<sub>2</sub> sampling rate.
- 11. (i) UHF communications are through GOES. Frequency is 401.8360  $\rm MH_Z$  (GOES channel 91E) for east GOES.

UHF for position location systems are up-link only and are 401.65  $\mbox{MH}_{\mbox{\scriptsize Z}}$  for ARGOS position systems satellite.

- (ii) All ultra high frequency transmissions: F, (PSK; manchester coded; 100 bits/seconds).
- (iii) Communication 50 dbm UHF; Position System 42 dbm UHF.
- 12. (i) (a) No (b) Through purchase from NODC.
  - (ii) Magnetic tapes

- NOAA/National Ocean Service Coastal Waves Program Rockville, Maryland 20852
- 2. Spherical, moored buoy.
- 3. .7 meter diameter sphere, the weight is approximately 100 kilograms.
- 4. Zenon flashing light with one flash every two seconds during ten seconds: repeats every twenty seconds. Bottom half of sphere is painted white. The top half alternating vertical stripes of international orange and white. Identifier message is written in red and black on top half.
- 5. Not applicable.
- 6. Latitude 38º 12' North Longitude 74º 58' West.
- 7. Test station. Buoy deployed October 18, 1978.
- 8. (i) Yes
  - (ii) No
- 9. Not applicable.
- 10. Significant height, sea surface elevations (wave profiles) at 4H<sub>7</sub> sampling rate.
- 11. (i) 27.545 MH<sub>z</sub>
  - (ii) HF
  - (iii) .2 watts, range 30 miles.
  - (iv) Continuous
- 12. (i) (a) No
  (b) Through purchase from NODC.
  - (ii) Magnetic tapes

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 41001 is a 12 meter diameter discus buoy with a 1.2 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 41001 are painted in black on buoy sides and deck.
- 5. 41001
- 6. Latitude 34.9° North Longitude 72.9° West.
- 7. Permanent station. Buoy deployed November 17, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2~MHz and 401.65~MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- 12. (i) (a) Yes (b) Through GTS or purchase from NCC and NODC

(ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 41002 is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 41002 are painted in black on buoy sides and deck.
- 5. 41002
- 6. Latitude 32.3° North Longitude 75.29° West.
- 7. Permanent station. Buoy deployed April 21, 1980. A 6 meter boat-shaped hull buoy is scheduled to replace the 10 meter buoy in June 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dBm UHF; Position System 42 dbm UHF
- (iv) 35 seconds each hour
   1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 41004 is a 5 meter diameter discus buoy with a 0.6 meter freeboard. The superstructure is a a narrow mast terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 6,800 kilograms and has a draft of 0.6 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; mast is solid yellow. Identifiers "NOAA" and 41004 are painted in black on buoy sides and deck.
- 5. 41004
- 6. Latitude 32.6° North Longitude 78.7° West.
- 7. Buoy deployed September 7, 1981. Station is to be disestablished subsequent to data system failure.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- (iv) 35 seconds each hour
   1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 42001 is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 42001 are painted in black on buoy sides and deck.
- 5. 42001
- 6. Latitude 25.9° North Longitude 89.7° West.
- 7. Permanent station. Buoy deployed April 21, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

This buoy also has a LORAN-C position fixing system.

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- 12. (i) (a) Yes (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- 1. NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 42002 is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 42002 are painted in black on buoy sides and deck.
- 5. 42002
- 6. Latitude 26.0° North Longitude 93.5° West.
- 7. Permanent station. Buoy deployed August 27, 1980.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- (iv) 35 seconds each hour
   1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  (ii) Magnetic tapes.

- 1. NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 42003 is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 42003 are painted in black on buoy sides and deck.
- 5. 42003
- 6. Latitude 26.0° North Longitude 86.0° West.
- 7. Permanent station. Buoy deployed September 11, 1980. Buoy planned for refurbishment February 1983.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 42007 is a 12 meter diameter discus buoy with a 1.2 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 42007 are painted in black on buoy sides and deck.
- 5. 42007
- 6. Latitude 30.1° North Longitude 88.9° West.
- 7. 2-year duration after deployment on January 16, 1981.
- 8. (i) No
  (ii) Yes (Reporting data to the National Weather Service but is primarily developmental).
- 9. Not applicable
- 10. The purpose of this buoy is an NDBO Ocean Test Platform to operationally test new sensors, data collection systems and power systems. Parameters measured are wind speed, wind direction, barometric pressure, sea surface temperature, subsurface temperature at 1, 2, 3 meters, significant wave height/wave period, position location, humidity, and rainfall. There are also various power systems on test such as solar cells, wind generator, etc.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

This buoy also has a LORAN-C position fixing system.

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
   (b) Through GTS or purchase from NCC and NODC (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Platform
- 3. 42008 is a monopole satellite oil rig. Meteorological sensors are located 12 meters above mean water level.
- 4. Fog horn, 3.2 kilometers omnidirectional with 2 second blast every 20 seconds.
- 5. 42008
- 6. Latitude 28.7° North Longitude 95.3° West.
- 7. Permanent station established in August 1977.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Wind speed and direction, barometric pressure, air temperature, surface and bottom water temperature, conductivity and current speed and direction near the bottom. Depth at platform is 18.3 meters.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).
  - (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
  - (iii) Communications 50 dbm.
  - (iv) 15 seconds each hour
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Platform
- 3. 42011 is a monopole tower. Meteorological sensors are located 12.5 meters above mean water level.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Fog horn, 3.2 kilometers omnidirectional with 2 second blast every 20 seconds.
- 5. 42011
- 6. Latitude 29.6° North Longitude 93.5° West.
- 7. Permanent station established in March 11, 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Wind speed and direction, barometric pressure, air temperature, surface and bottom water temperature, conductivity and current speed and direction near the bottom. Depth at platform is 9.5 meters.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).
  - (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
  - (iii) Communications 50 dbm.
  - (iv) 15 seconds each hour
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 44003 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. The superstructure is a 2.5 meter open girder cage forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are solid yellow. Identifiers "NOAA" and 44003 are painted in black on sides of buoy hull.
- 5. 44003
- 6. Latitude 40.8° North Longitude 68.5° West.
- 7. Permanent station. Buoy deployed February 1, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- (i) (a) Yes(b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 44004 is a 12 meter diameter discus buoy with a 1.2 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 44004 are painted in black on buoy sides and deck.
- 5. 44004
- 6. Latitude 38.5° North Longitude 70.7° West.
- 7. Permanent station. Buoy retrieved in May 1981. Buoy planned for deployment in June 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions:  $F_{\uparrow}$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 44005 is a 12 meter diameter discus buoy with a 1.2 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 44005 are painted in black on buoy sides and deck.
- 5. 44005
- 6. Latitude 42.7° North Longitude 68.3° West.
- 7. Permanent station. Buoy deployed December 2, 1980. Buoy planned to be retrieved for refurbishment in March 1983.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

This buoy also has a LORAN-C position fixing system.

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- (iv) 35 seconds each hour
   1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 44007 is a 12 meter diameter discus buoy. The superstructure is a 1.2 meter diameter mast terminating in a platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds. The buoy has a horn. It has a radio beacon transmitting on 301 KHz. It transmits identification letters PH in morse code. The buoy is painted red. Identifying letters PH are painted in black on sides and superstructure.
- 5. 44007
- 6. Latitude 43.5° North Longitude 70.1° West.
- 7. Permanent station. Buoy planned to be deployed February 16, 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).
  - (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
  - (iii) Communications 50 dbm UHF.
  - (iv) 35 seconds each hour.
- 12. (i) (a) No (b) No
  - (ii) None.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- Boat-shaped, moored buoy
- 3. 4500l is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. The superstructure is a 2.5 meter open girder superstructure forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures all are yellow. Identifiers "NOAA" and 4500l are painted in black on sides of buoy hull.
- 5, 45001
- 6. Latitude 48.0° North Longitude 87.6° West.
- 7. Latest deployment May 6, 1982. Buoy will be retrieved during November and redeployed in May annually. Buoys in the Great Lakes are to be on station during ice-free months only.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

This buoy has a LORAN-C position fixing system.

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF.
- (iv) 35 seconds each hour
- 12. (i) (a) Yes
  - (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- 1. NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 45002 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder superstructure forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow.

  Main deck and all superstructures are yellow. Identifiers "NOAA" and 45002 are painted in black on sides of buoy hull.
- 5. 45002
- 6. Latitude 45.3° North Longitude 86.3° West.
- 7. Latest deployment April 15, 1982. Buoy will be retrieved during November and redeployed in April annually. Buoys in the Great Lakes are to be on station during ice-free months only.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF.
- (iv) 35 seconds each hour
- 12. (i) (a) Yes
  - (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 45003 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder superstructure forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 45003 are painted in black on sides of buoy hull.
- 5. 45003
- 6. Latitude 45.3° North Longitude 82.8° West.
- 7. Latest deployment May 3, 1982. Buoy will be retrieved during November and redeployed in May annually. Buoys in the Great Lakes are to be on station during ice-free months only.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF.
- (iv) 35 seconds each hour
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 45004 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder superstructure forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 45004 are painted in black on sides of buoy hull.
- 5. 45004
- 6. Latitude 47.2° North Longitude 86.5° West.
- 7. Latest deployment May 7, 1982. Buoy will be retrieved during November and redeployed in May annually. Buoys in the Great Lakes are to be on station during ice-free months only.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF.
- (iv) 35 seconds each hour
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 45005 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder superstructure forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 45005 are painted in black on sides of buoy hull.
- 5. 45005
- 6. Latitude 41.7° North Longitude 82.5° West.
- 7. Latest deployment April 14, 1982. Buoy will be retrieved during November and redeployed in April annually. Buoys in the Great Lakes are to be on station during ice-free months only.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF.
- (iv) 35 seconds each hour
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 45006 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder superstructure forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 45006 are painted in black on sides of buoy hull.
- 5. 45006
- 6. Latitude 47.32° North Longitude 90.0° West.
- 7. Latest deployment May 6, 1982. Buoy will be retrieved during November and redeployed in May annually. Buoys in the Great Lakes are to be on station during ice-free months only.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF.
- (iv) 35 seconds each hour
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- Boat-shaped, moored buoy
- 3. 45007 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder superstructure forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 45007 are painted in black on sides of buoy hull.
- 5. 45007
- 6. Latitude 42.7° North Longitude 87.1° West.
- 7. Latest deployment March 22, 1982. Buoy will be retrieved during November and redeployed in April annually. Buoys in the Great Lakes are to be on station during ice-free months only.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF.
- (iv) 35 seconds each hour
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- 1. NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 45008 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder superstructure forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 45008 are painted in black on sides of buoy hull.
- 5. 45008
- 6. Latitude 44.3° North Longitude 82.4° West.
- 7. Latest deployment April 19, 1982. Buoy will be retrieved during November/December and redeployed in April annually. Buoys in the Great Lakes are to be on station during ice-free months only.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions:  $F_{\uparrow}$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF.
- (iv) 35 seconds each hour
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 4600l is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 46001 are painted in black on buoy sides and deck.
- 5. 46001
- 6. Latitude 56.0° North Longitude 148.0° West.
- 7. Permanent station. Buoy deployed July 22, 1980. A 6 meter boat-shaped hull buoy is scheduled to replace the 10 meter buoy in October 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42dbm UHF
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 46002 is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 46002 are painted in black on buoy sides and deck.
- 5. 46002
- 6. Latitude 42.5° North Longitude 130.3° West.
- 7. Permanent station. Buoy deployed September 19, 1980. A 6 meter boat-shaped hull buoy is scheduled to replace the 10 meter buoy in September 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).
  - UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.
  - (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
  - (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
  - (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 46003 is a 12 meter diameter discus buoy with a 1.2 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 46003 are painted in black on buoy sides and deck.
- 5, 46003
- 6. Latitude 51.9° North Longitude 155.7° West.
- 7. Permanent station. Buoy deployed in July 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 46004 is a 12 meter diameter discus buoy with a 1.2 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 46004 are painted in black on buoy sides and deck.
- 5. 46004
- 6. Latitude 50.9° North Longitude 135.9° West.
- 7. Permanent station. Buoy deployed February 22, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 46005 is a 12 meter diameter discus buoy with a 1.2 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 46005 are painted in black on sides of buoy hull.
- 5. 46005
- 6. Latitude 46.1° North Longitude 131.0° West.
- 7. Permanent station. The 12 meter buoy was deployed on November 23, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm; Position System 42 dbm UHF.
- (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 46006 is a 12 meter diameter discus buoy with a 1.2 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 46006 are painted in black on buoy sides and deck.
- 5. 46006
- 6. Latitude 40.8° North Longitude 137.6° West.
- 7. Permanent station. Buoy deployed May 8, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 460]0 is a 12 meter diameter discus buoy. The superstructure is a 1.2 meter diameter mast terminating in a platform 10 meters above the sea surface. The buoy displaces approximately 91,000 kilograms and has a draft of 1.1 meters.
- 4. White group flashing light with 4 flashes every 20 seconds. The buoy has a horn. It has a radio beacon transmitting on 316 KHz. It transmits identification letters CR in morse code. The buoy is painted red. Identifying letters CR are painted in black on sides and superstructure.
- 5. 46010
- 6. Latitude 46.2° North Longitude 124.2° West.
- 7. Permanent station. Buoy planned to be deployed June 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).
  - (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
  - (iii) Communications 50 dbm UHF.
  - (iv) 35 seconds each hour.
- 12. (i) (a) No (b) No
  - (ii) None.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 46011 is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meters above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 46011 are painted in black on buoy sides and deck.
- 5. 46011
- 6. Latitude 34.9° North Longitude 120.9° West.
- 7. Permanent station. Buoy deployed March 10, 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC

(ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 46012 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder cage forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 46012 are painted in black on sides of buoy hull.
- 5. 46012
- 6. Latitude 37.4° North Longitude 122.7° West.
- 7. Permanent station. Buoy deployed November 24, 1980.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF.
- (iv) 35 seconds each hour
   1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 460]3 is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meter above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 46013 are painted in black on buoy sides and deck.
- 5. 46013
- 6. Latitude 38.2° North Longitude 123.3° West.
- 7. Permanent station. Buoy deployed March 31, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions:  $F_1$  (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF.
- (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC or NODC.
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Discus-shaped, moored buoy
- 3. 46014 is a 10 meter diameter discus buoy with a 1.1 meter freeboard. The superstructure is a 1 meter diameter mast terminating in a sensor platform 10 meter above the sea surface. The buoy displaces approximately 52,000 kilograms and has a draft of 1 meter.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. The buoy deck and sides are painted alternating bands of red and yellow; superstructure is solid yellow. Identifiers "NOAA" and 46014 are painted in black on buoy sides and deck.
- 5. 46014
- 6. Latitude 39.2° North Longitude 124.0° West.
- 7. Permanent station. Buoy deployed April 1, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF.
- (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC or NODC.
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 46022 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder cage forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 46022 are painted in black on sides of buoy hull.
- 5. 46022
- 6. Latitude 40.8° North Longitude 124.5° West.
- 7. Permanent station. Buoy deployed January 16, 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF.
- 12. (i) (a) Yes (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office
   National Space Technology Laboratories
   NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 46023 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder cage forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 46023 are painted in black on sides of buoy hull.
- 5, 46023
- 6. Latitude 34.3° North Longitude 120.7° West.
- 7. Permanent station. Buoy deployed on April 7, 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF.
- (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 46024 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder cage forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 46024 are painted in black on sides of buoy hull.
- 5. 46024
- 6. Latitude 32.8° North Longitude 119.2° West.
- 7. Permanent station. Buoy deployed on April 14, 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF.
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- Boat-shaped, moored buoy
- 3. 46025 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. It has a 2.5 meter open girder cage forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 46025 are painted in black on sides of buoy hull.
- 5. 46025
- 6. Latitude 33.6° North Longitude 119.0° West.
- 7. Permanent station. Buoy deployed on April 20, 1982.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF.
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  - (ii) Magnetic tapes.

- NOAA Data Buoy Office National Space Technology Laboratories NSTL Station, Mississippi 39529, U.S.A.
- 2. Boat-shaped, moored buoy
- 3. 51001 is a 6 meter long boat-shaped hull with a 3 meter beam and a 0.6 meter freeboard. The superstructure is a 2.5 meter open girder cage forward and a mast aft terminating in a sensor platform 5 meters above the sea surface. The buoy displaces approximately 9,100 kilograms and has a draft of 1.9 meters.
- 4. White group flashing light with 4 flashes every 20 seconds during hours of darkness. Buoy sides are painted alternating bands of red and yellow. Main deck and all superstructures are yellow. Identifiers "NOAA" and 51001 are painted in black on sides of buoy hull.
- 5. 51001
- 6. Latitude 23.4° North Longitude 162.3° West.
- 7. Permanent station. Buoy deployed February 10, 1981.
- 8. (i) Yes (ii) No
- 9. Not applicable
- 10. Average and peak wind speeds, wind direction, barometric pressure, air temperature, surface water temperature, significant wave height, average and dominant wave periods, spectral wave data.
- 11. (i) UHF communications are through GOES. Up-link frequencies assigned to NDBO are 401.838910 and 401.941074 MHz (GOES channels 93 and 161) for east GOES and 401.817923 and 401.841908 MHz (GOES channels 79 and 95) for west GOES. The down-link frequencies are universal and are 468.825 MHz (west GOES) and 468.8375 MHz (east GOES).

UHF for position location systems are up-link only and are 401.2 MHz and 401.65 MHz for NIMBUS and TIROS satellites respectively.

- (ii) All ultra high frequency transmissions: F<sub>1</sub> (PSK; manchester coded; 100 bits/seconds).
- (iii) Communications 50 dbm UHF; Position System 42 dbm UHF.
- (iv) 35 seconds each hour 1 second every 64 seconds (UHF position)
- 12. (i) (a) Yes
  (b) Through GTS or purchase from NCC and NODC
  (ii) Magnetic tapes.

- 1. Office of Naval Research/Polar Research Laboratory
- 2. Ice buoy, current meter SYNARGOS
- 3. 1' x 2' x 1.5', white case with current meters tethered at 100 amd 300 ft
- 4. Painted white and no markings
- 5. 1760 Argos
- 6. 82.9° N 48.1° E, Arctic Ocean
- 7. 20 April 1982, two-year battery life
- 8. Operational
- 9. South into Greenland Sea drifting with ice 50 nautical miles per month
- 10. Relative current speed and direction at 100 and 300 ft below drifting ice
- 11. (i) 401.65 MHz;
  - (ii) ± 60° phase modulation at 400 Hz rate;
  - (iii) + 31 dBm;
  - (iv) 1 second burst every 60 seconds
- 12. (i) (a) No;
  - (b) No;
  - (ii) Magnetic tapes

- 1. Office of Naval Research/Polar Research Laboratory
- 2. Ice buoy, acoustic ambient noise SYNARGOS
- 3. 8" diameter x 13 ft cylinder with hydrophone 100 ft below ice
- Painted white and no markings
- 5. 1761 Argos
- 6. 82.9° N 48.1° E, Arctic Ocean
- 7. 18 April 1982, one-year battery life
- 8. Operational
- 9. South into Greenland Sea drifting with ice at 50 nautical miles per month
- 10. Under ice ambient noise in 1/3 octave bands from 5 to 1000 Hz
- 11. (i) 401.65 MHz;
  - (ii) ± 60° phase modulation at 400 Hz rate;
  - (iii) + 31 dBm;
  - (iv) 1 second burst every 60 seconds
- 12. (i) (a) No;
  - (b) No;
  - (ii) Magnetic tapes

- 1. Office of Naval Research/Polar Research Laboratory
- 2. Ice buoy, acoustic ambient noise SYNARGOS
- 3. 8" diameter x 13 ft; cylinder with hydrophone 100 ft below ice
- 4. Painted white and no markings
- 5. 1762 Argos
- 6. 90.0° N (at geographic north pole)
- 7. 4 May 1982, one-year battery life
- 8. Operational
- 9. South towards Svallbord/Greenland Straits at 25 nautical miles per month
- 10. under ice ambient noise in 1/3 octave bands from 5 to 1000 Hz
- 11. (i) 401.65 MHz;
  - (ii) ± 60° phase modulation at 400 Hz rate;
  - (iii) + 31 dBm;
  - (iv) 1 second burst every 60 seconds
- 12. (i) (a) No;
  - (b) No;
  - (ii) Magnetic tapes

- 1. Office of Naval Research/Polar Research Laboratory
- Ice buoy, acoustic ambient noise SYNARGOS
- 3. 8" diameter x 13 ft cylinder with hydrophone 100 ft below ice
- 4. Painted white and no markings
- 5. 1763 Argos
- 6. 83.2" N 12.5" E, ice station Fram Arctic Ocean
- 7. 14 May 1982, one-year battery life
- 8. Operational
- 9. South into Greenland Straits at 100 nautical miles per month
- 10. Under ice ambient noise in 1/3 octave bands from 5 to 1000 Hz
- 11. (i) 401.65 MHz;
  - (ii) ± 60° phase modulation at 400 Hz rate;
  - (iii) + 31 dBm;
  - (iv) 1 second burst every 60 seconds
- 12. (i) (a) No; (b) No;
  - (ii) Magnetic tapes

- 1. Office of Naval Research/Polar Research Laboratory
- Ice buoy, acoustic ambient noise SYNARGOS
- 3. 8" diameter x 13 ft cylinder with hydrophones at 60, 100, 200 and 300 ft
- 4. Painted white and no markings
- 5. 1784 Argos
- 6. 83.2° N 12.5° E, ice station Fram Arctic Ocean
- 7. 10 May 1982, one-year battery life
- 8. Operational
- 9. South into Greenland Sea at 100 nautical miles per month
- 10. Under ice ambient noise in 1/3 octave bands at four depths under the ice in frequency bands from 5 to 1000  $\rm Hz$
- 11. (i) 401.65 MHz;
  - (ii) ± 60° phase modulation at 400 Hz rate;
  - (iii) + 31 dBm;
  - (iv) 1 second burst every 60 seconds
- 12. (i) (a) No;
  - (b) No;
  - (ii) Magnetic tapes

#### Yugoslavia

- 1. Hydrographic Institute of the Yugoslavian Navy
- 2. Moored waverecorders buoys
- 3. -
- 4. -
- 5. N/I
- 6. (i) 42° 21.5' N 16° 19.1' E; (ii) 42° 38.2' N 17° 57.9' E; (iii) Variable position
- 7. -
- 8. Experimental
- 9. -
- 10. Wave height and period
- 11. (i) -; (ii) HF; (iii) -; (iv) -
- 12. For the present time measured data are not internationally exchanged but used for national meteorological and oceanographical purposes

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