

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
COMMISSION OCEANOGRAPHIQUE INTERGOUVERNEMENTALE
COMISION OCEANOGRAFICA INTERGUBERNAMENTAL
МЕЖПРАВИТЕЛЬСТВЕННАЯ ОКЕАНОГРАФИЧЕСКАЯ КОМИССИЯ



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WORLD METEOROLOGICAL ORGANIZATION
ORGANISATION METEOROLOGIQUE MONDIALE
ORGANIZACJA METEOROLOGICA MUNDIAL
ВСЕМИРНАЯ МЕТЕОРОЛОГИЧЕСКАЯ ОРГАНИЗАЦИЯ



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Joint IOC/WMO circular letter No. 82-78

GENEVA, 19 January 1983

Annex: 1 (English only)

22653

Subject: Oceanographic products issued by National Centres - Information Service Bulletin No. 4 -

Action required: (1) To send modifications and/or additions, if any, to the information contained in the bulletin;
(2) To make widely known among the user communities the availability of existing and planned oceanographic products.

To: - Member States of IOC
- Permanent Representatives of Members of WMO (PR-3513)

Dear Sir/Madam,

I have pleasure in forwarding herewith the **Information Service Bulletin No. 4 concerning oceanographic products issued by National Centres.**

As the main purpose of the bulletin is to keep the various users of oceanographic products informed of the availability of the present and planned oceanographic products, both in real and non-real time, it is requested that the contents of the bulletin be made widely known among the user communities in your country.

It is planned to publish the next issue of the bulletin around the same time in 1983 and you are invited to send new entries, additions or amendments to this bulletin by 30 June 1983. If you have no changes to make, please confirm that the present entry is valid for the next issue.

(M. Ruivo)

Secretary, IOC

Vlaams Instituut voor de Zee
Flanders Marine Institute

Yours faithfully,

(G.K. Weiss)

for the Secretary-General of WMO

cc: National Representatives for IGOSS
Chairman and Vice-Chairman, IOC/WMO Working Committee for IGOSS
Chairman and Vice-Chairman, IOC Working Committee for IODE
Presidents and Vice-Presidents of WMO Technical Commissions of CMM and CBS
Chairman, WMO/CMM Working Group on MMS

ANNEX

INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION
(of Unesco)

WORLD METEOROLOGICAL
ORGANIZATION

INTEGRATED GLOBAL OCEAN SERVICES SYSTEM
OCEANOGRAPHIC PRODUCTS ISSUED BY NATIONAL CENTRES

INFORMATION SERVICE BULLETIN NO. 4

DECEMBER 1982

Information on oceanographic products issued by National Centres

- A. Background: The Joint IOC/WMO Planning Group for IGOSS at its third session (IPLAN III), Geneva, March/April 1976, recognized the importance of the exchange of information on oceanographic products among Member States particularly in connexion with the development of the IGOSS Data Processing and Services System (IDPSS). IPLAN, therefore, requested that the IOC and WMO Secretariats arrange for the compilation of existing national oceanographic services in association with those to be produced via the implementation of the IDPSS and, inter alia, invited Member States of IOC and WMO to provide information periodically to the Secretariats on oceanographic products issued by National Centres so that this information could be included in appropriate WMO and IOC publications.
- B. Purpose: The purpose of regular information service bulletins on oceanographic products issued by National Centres is to make the availability of existing and planned oceanographic products widely known among marine user groups so that appropriate benefits may be derived for their activities. The bulletin consolidates for operational purposes such information as contained in IOC Technical Series No. 12 "Oceanographic Products and Methods of Analysis and Prediction" and WMO Publication No. 9, Volume D - Information for Shipping.
- C. Reference: (1) Joint IOC/WMO circular letter No. 78-47 of 15 November 1978, First issue of a regular information service bulletin on oceanographic products issued by National Centres;
- (2) Joint IOC/WMO circular letter No. 80-61 of 9 September 1980, Oceanographic products issued by National Centres - Information Service Bulletin No. 2;
- (3) Joint IOC/WMO circular letter No. 82-71 of 18 January 1982, Oceanographic products issued by National Centres - Information Service Bulletin No. 3.
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PART I

EXISTING PRODUCTS

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: AUSTRALIA

Date of submission: October 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sub-surface temperature	Australian Oceanographic Data Centre - PO Box 1332 North Sydney NSW 2060 AUSTRALIA	Averages, maximum minimums at surface and standard depths	Magnet Tape Printed lists	30° N - 70° S 20° E - 150° W	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

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Name of country: CANADA

Date of submission: May 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea state	Canadian Forces Weather Service (CFWS) Meteorological and Oceanographic Centre (METOC). Esquimalt, B.C. Victoria, VOS LBO A joint operation of the Atmospheric Environment Service (AES) and the Department of National Defence (DND)	Analysis, twice daily	-	Northeast Pacific	For internal use only
Sea state	CFWS METOC Centre Esquimalt	24 hour prognosis	Radiofacsimile	Northeast Pacific	WMO Publ. No. 9, Vol. D
Sea surface temperature	CFWS METOC Centre Esquimalt	Analysis, twice weekly	Radiofacsimile mail	Northeast Pacific	WMO Publ. No. 9, Vol. D
Sea surface temperature mean and anomaly charts	CFWS METOC Centre Esquimalt	Analysis monthly	Mail	Northeast Pacific	WMO Publ. No. 9, Vol. D
Sea surface temperature	CFWS METOC Centre Esquimalt	Analysis, twice weekly	Mailed chart and radioteletype - message	Northeast Pacific	WMO Publ. No. 9 Vol. D, Apr.-Oct. only for fisheries
Temperature at 150m Depth	- ditto -	Analysis, monthly	Mail	Northeast Pacific	-
Sea state	Canadian Forces Weather Service (CFWS & METOC as above) FMO Halifax, N.S. Canada B3K 2X0	Analysis four times daily	Twice daily via land and radio-facsimile. Mail	Northwest Atlantic	WMO Publ. No. 9, Vol. D

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: CANADA

Date of submission: October 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea state	CEWS METOC Centre Halifax Canada	12-24-36 hour forecast, each twice daily	Twice daily via land and radio-facsimile, mail	Northwest Atlantic	WMO Publ. No. 9, Volume D
Sea state and period	- ditto -	Analysis twice daily	Climatological extract for mail. Digitization for verification and internal use.	- ditto -	- ditto -
Sea surface temperature	- ditto -	Analysis twice weekly	Daily via radio-facsimile. Weekly by mail. Twice weekly by land facsimile	- ditto -	- ditto -
Ocean features (water mass)	- ditto -	Analysis twice weekly.	Daily by radio-facsimile. Mail.	- ditto -	- ditto -
Oceanographic physical and chemical parameters	Marine Environmental Data Services Fisheries and Oceans Canada 240 Sparks Street 7th Flr West Ottawa, Ontario K1A 0B6	Means by user area	Computer listing	User variable within 35°-90°N 40°-180°W	Statistical monthly averages on request
Wave height and period of significant waves	- ditto -	Statistical summaries and analyses	Publications	In-situ recordings within 35°-90°N 40°-180°W	On request
Water level	- ditto -	Bulletin of Canadian Great Lakes Levels	Telex message	In-situ water level gauges on Canadian Great Lakes	Weekly telex
Water level	- ditto -	Daily, monthly, yearly and extreme monthly levels	Computer listing	In-situ permanent gauges within 35°-90°N 40°-180°W	On request

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: CANADA

Date of submission: October 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Tidal harmonic constants	Marine Environmental Data Services Fisheries and Oceans Canada 240 Sparks Street 7th floor West Ottawa Ontario K1A 0E6	Derived harmonic constants and tidal characteristics	Computer listing	In-situ permanent gauges within 35°-90°N 40°-180°W	On request
Tide tables	- ditto -	Tourist tide tables	Publication	Specific tourist attraction sites	On request
Tidal highs and lows	- ditto -	Yearly tidal highs and lows	Publication	In-situ permanent gauges within 35°-90°N 40°-180°W	On request

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: FINLAND

Date of submission: April 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
1 Sea ice	Institute of Marine Research Box 166, 00141 Helsinki 14	Analysis	Map scale 1:2M, by facsimile twice a day	The Baltic Sea	Operational use for winter navigation
2 Sea ice	- ditto -	Analysis	Map 1:2M, by mail twice a week	- ditto -	- ditto -
3 Sea ice	- ditto -	Analysis Forecast	Bulletin (Finnish, Swedish and English) + coded information by mail	- ditto -	- ditto -
4 Sea ice	- ditto -	Forecast 12-16 hours	Facsimile charts based on a numerical model	The Gulf of Bothnia	For operational use for ice- breakers and navigation authorities
5 Sea surface temperature	- ditto -	Analysis	During spring and autumn seasons included in 1-3		
6 Water level	- ditto -	Observations	Broadcast twice a day	The coast of Finland	Numerical forecasts may be obtained on request
7 Wind waves	- ditto -			- ditto -	- ditto -

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: GERMANY DEMOCRATIC REPUBLIC

Date of submission: October 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Wind, sea, cloudiness, visibility and hydrometeors	Meteorologischer Dienst der DDR - Seewetterdienststelle DDR-2530 Rostock-Warnemünde Seestrasse 15 a	Weather bulletin for shipping (general situation, 24-hour forecasts and warnings)	Plain language (German, English) routine broadcast	The Baltic, North Sea	Published in: Nautischer Funkdienst, Band III by Seehydro-graphischer Dienst der DDR, WMO Publ. No. 9, Vol. D
Sea ice	- ditto -	Analysis, forecasts 1-5 days	Bulletin, plain language (German) and coded information (Baltic Ice Code), issued by coastal radio and mail, routine	The Baltic, GDR-coastal waters, southeast part of North Sea	- ditto -
Wind and sea conditions forecasts for a special recommended ship route	- ditto -	Bulletin	Bulletin, usually transmitted by radio-telegraphy to ship on request	North Atlantic	
Water level	Wasserwirtschafts-direktion Küste, DDR-2300 Stralsund Badenstrasse 18	Actual state, forecasts warnings	Plain language, routine	GDR-coastal waters	Daily

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: GERMANY, FEDERAL REPUBLIC OF

Date of submission: June 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
a) 6 or 7 day-mean sea surface temperature (°C)	Deutscher Wetterdienst Zentralamt-Frankfurter Str. 135 D-6050 Offenbach	Plotted data	Discrete values at each grid point (distance between grid points about 200 nm)	North Atlantic	WMO Publ. No. 9, Vol. D
b) deviation from long-term monthly mean			Dissemination by radiofacsimile twice weekly		
a) 10 day-mean sea surface temperature (°C)	- ditto -	Plotted data	Discrete values at each grid point (distance between grid points about 200 nm)	Northern hemisphere	
b) see above			Dissemination by air mail once weekly		
a) monthly mean sea surface temperature (°C)	- ditto -	Plotted data	Discrete values at each grid point (distance between grid points about 200 nm)	Northern hemisphere	
b) see above			Dissemination by mail once monthly		
Sea and swell: height direction period	Deutscher Wetterdienst Seewetteramt Bernhard-Nocht-Str.76 D-2000 Hamburg 4	Wave height, manually analysed	Charts disseminated by radiofacsimile once daily Height: Isolines (m) Direction: Arrows Period: Figures (s) at the arrows	North Atlantic North Sea	
Wind and sea conditions forecasts for a special recommended ship route	- ditto -	Bulletin	Bulletin transmitted usually by telex to the shipping company or ship	North Atlantic	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: GERMANY, FEDERAL REPUBLIC OF

Date of submission: June 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature (°C) sea conditions (ship observations)	Deutscher Wetterdienst Seewetteramt Bernhard-Nocht-Str.76 D-2000 Hamburg 4	Coded data	Data recorded on magnetic tape. Dissemination by mail on request	North and South Atlantic Ocean South 20°N and between South America and Africa	
Ice	Deutsches Hydrographisches Institut Bernhard Nocht Str.78 2000 Hamburg 4	Analysis	Fax charts, printed charts, bulletin, plain language and coded by mail (routine)	Western Baltic Baltic Sea	WMO Publ. No. 9, Vol. D
Ice	- ditto -	Forecast	Plain language	Western Baltic German Bight	WMO Publ. No. 9, Vol. D
Ice	- ditto -	Warnings	Plain language Ice code	Western Baltic German Bight	WMO Publ. No. 9, Vol. D
Temperature salinity, currents	- ditto -	Data report	Print-out	Western Baltic German Bight	IOC T.S. No. 12 annually
Sea surface temperature weekly	- ditto -	Analysis	Fax charts, printed charts	North Sea	WMO Publ. No. 9, Vol. D
Bottom temperature	- ditto -	Analysis	Printed charts	North Sea	Irregular; "IGOSS products"
Vertical temperature distribution	- ditto -	Analysis	Printed charts Plain language	North Sea	Irregular; "IGOSS products"
Bottom temperature	- ditto -	Forecast	Printed charts Plain language	North Sea	IOC T.S. No. 12, irregular

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: GERMANY, FEDERAL REPUBLIC OF

Date of submission: June 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Radio activity different isotopes	Deutsches Hydrographisches Institut Bernhard Nocht Str.78 2000 Hamburg 4	Analysis	Plain language	North Sea Western Baltic Northeast Atlantic	
Nutrients, oxygen, pH	- ditto -	Analysis	Plain language	Western Baltic	Irregular (re.Helsinki Convention)
Heavy metals, pesticides, oil	- ditto -	Analysis	Plain language	German Bight Western Baltic	Irregular

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: GREECE

Date of submission: April 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Wind State of Sea	Hellenic National Meteorological Service, Glyfada Post Office TT5 ATHENS	Weather and Sea Bulletins, 24-hour Forecast Gale/storm Warnings	Plain language (Greek-English) routine	Adriatic Sea, Ionian Sea, Aegean Sea, Central-Eastern Mediterranean, Marmara and Black Sea	Broadcast four times daily, WMO Publ. 9, Vol. D
Sea surface temperature	- ditto -		On request	Coast areas in Aegean and Ionian Sea	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: JAPAN

Date of submission: July 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature	Oceanographical Division, Marine Department, Japan Meteorological Agency, 3-4 1-chome Otemachi Chiyodaku 100 Tokyo JAPAN	Analysis (10-day mean)	Fax chart and publica- tion (routine)	0° - 53°N 110° - 180°E	WMO Publ. No. 9, Vol. D; IOC T.S. No. 12
Sea surface temperature	- ditto -	Analysis (monthly mean)	Fax chart and pub- lication (routine)	0° - 53°N 110° - 180°E	WMO Publ. No. 9, Vol. D; IOC T.S. No. 12
Sea surface temperature	- ditto -	Analysis (10-day mean derived from I.R. data of G.M.S.)	Fax chart (routine)	49°S - 48°N 90°E - 171°W	WMO Publ. No. 9, Vol. D
Anomaly of sea surface temperature	- ditto -	Analysis (monthly)	Publication (routine)	10° - 53°N 110° - 180°E	IOC T.S. no. 12
Sea surface current	- ditto -	Analysis (monthly)	Fax chart and publication (routine)	24° - 48°N 124° - 158°E	WMO Publ. No. 9, Vol. D; IOC T.S. No. 12
Sub-surface temperature (at 100 m)	- ditto -	Analysis (monthly)	Fax chart and publication (routine)	24° - 48°N 124° - 158°E	WMO Publ. No. 9, Vol. D; IOC T.S., No. 12
Sea ice	- ditto -	Analysis (semi-weekly)	Fax chart (routine in winter season)	Sea of Okhotsk and northern part of Japan Sea	WMO Publ. No. 9, Vol. D
Sea and swell	- ditto -	Analysis (24-hourly)	Fax chart (routine)	Western-North Pacific	WMO Publ. No. 9, Vol. D
Sea and swell	- ditto -	Forecasts (24 hourly)	Fax chart (routine)	Western-North Pacific	WMO Publ. No. 9, Vol. D

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D,

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: JAPAN

Date of submission: July 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea water temperature at sea surface and subsurface (at the depths of 100, 200 m) and sea surface current	Oceanographic Division Hydrographic Department, Maritime Safety Agency, 3-1, 5-chome Tsukiji, Chuo-ku Tokyo 104 JAPAN	Analysis (bi-monthly)	Radio message, fax chart and publication (routine)	24° - 46°N 124° - 148°E (Publication) 29° - 38°N 128° - 145°E (Fax chart)	IOC T.S. No. 12 Fax chart is available except for temperature at the depth of 200 m
Sea water temperature at sea surface and subsurface (at the depths of 100, 200 m) and sea surface current	- ditto -	Analysis (seasonal)	Publication (routine)	28° - 46°N 122° - 155°E	IOC T.S. No. 12
Sea ice	The 1st Regional Maritime Safety Headquarters, 5-3 Minatomachi, Otaru City, Hokkaido 047 JAPAN	Analysis (every 10 days)	Publication (routine) in winter season	Sea of Okhotsk and northern part of Japan Sea	
Sea ice	- ditto -	Analysis (every day)	Radio messages (routine in winter season)	- ditto -	
Sea ice	- ditto -	Warnings (as necessary)	Radio messages (routine in winter season)	- ditto -	
Sea surface temperature	Japan Fisheries Information Service Centre, No. 5 Sogo Building, 7, 1-chome Kojimachi, Chiyoda-ku 102 Tokyo JAPAN	Analysis (every 5 days)	Publication (routine)	26° - 45°N 125° - 160°E	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: JAPAN

Date of submission: July 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature	Japan Fisheries Information Service Centre, No. 5 Sojo Building, 7, 1-chome Kojimachi, Chiyoda-ku 102 Tokyo JAPAN	Analysis (weekly)	Publication (routine)	Japan Sea	
Sea surface temperature	- ditto -	Analysis (weekly)	Publication (routine)	27° - 35°N 126° - 140°E	
Sea surface temperature	- ditto -	Analysis (every 5 days)	Publication (routine)	0° - 70°N 100°E - 80°W	
Sea surface temperature	- ditto -	Analysis (2 times/ week from April through July)	Publication (routine)	39° - 50°N 140° - 180°E	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: NETHERLANDS

Date of submission: March 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea and swell	Koninklijk Nederlands Meteorologisch Instituut (KNMI) Postbus 201 3730 AE De Bilt	Analysis (00 and 12 GMT)	Charts, by mail	North Atlantic	
Sea conditions forecasts for a special recommended ship route	- ditto -	Forecast (up to 48 hours)	Bulletin, usually transmitted by radio-telegraphy to ship	North Atlantic	
Wind and sea conditions forecasts for drilling platforms	- ditto -	Forecast (up to 72 hours)	Bulletin, on request, usually transmitted by telex	North Sea	
Waves (with associated wind)	- ditto -	Time series of wind and wave parameters, 6-hourly: observations, analysis (including 12-hour and 24-hour forecasts)	On request, on magnetic tape, graphs, tables	North Sea, Norwegian Sea	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: NORWAY

Date of submission: July 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Wind - waves- swell	The Norwegian Meteorological Institute, PO Box 320 Blindern, Oslo 3	Forecast	Telex and radio broadcast	North Sea Norwegian Sea	
Sea ice	- ditto -	Analysis	Maps by mail and radio broadcast twice weekly	Arctic between 39° W and 70° E	
Sea surface temperature	- ditto -	Analysis	Maps by mail twice weekly	Norwegian Sea Denmark Strait	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: PERU

Date of submission: February 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
SST, SSS	IMARPE, Apartado 22 Callao PERU	Analysis (Monthly Mean for 1° MS)	Charts on request	Peruvian Coast (MS 307, 308, 343, 344)	ERFEN Project
SST, VAT	- ditto -	Analysis (Seasonal observations at fixed lines)	On request Published yearly	Peruvian Coast	VACOM Project
SST	- ditto -	Time series analysis	Monthly mean for each station	Peruvian Coast	ERFEN
Thermal Structure down to 300 m depth	- ditto -	Analysis (Monthly observations on fixed lines)	On request Published yearly	200 miles section off Callao (12°S)	EBCCEN Project
T,S, Currents	- ditto -	Analysis (Seasonal Cruises)	Reports and Publications	Peruvian Coast	ERFEN Project
CO ₂ Nutrients, Chlorophyll, bed sediment, pollution	- ditto -	Analysis (Seasonal Cruises)	Reports and Publications	Peruvian Coast	ERFEN Project
Tide table	Directorate of Hydrography and Navigation of the Navy Oceanographic Department, Av. Gamarra 500 Chucuito-Callao I, PERU	Forecast of time and height of tide	Table	307-308-343	Annual Publication
Surface thermal variations in the southeast Pacific	- ditto -	Map of monthly isotherms, anomalies and monthly changes	Report with charts	008-009-010-011 307-308-309-310 343-344-345-346 379-380-381-382 415-416-417-418 451-452-453-454	Two volumes (May 1974-Sept. 1977) Satellite research programme for the "El Niño" project

EBCCEN = Coastal Monitoring of El Niño using ships and Fishing Fleet
ERFEN = Regional Study of El Niño Phenomenon
IMARPE = Instituto del Mar del Peru
SSS = Sea surface salinity

SST = Sea surface temperature
VACOM = Aerial Vigilance of the Oceanographic and Meteorological conditions
VAT = Vertical air temperature

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: SWEDEN

Date of submission: March 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea ice	Swedish Meteorological and Hydrological Institute (SMHI) Box 923 S-601 19 Norrköping	Analysis	Twice daily, map scale 1:2 M, disseminated by facsimile and twice weekly, maps disseminated by mail	The Baltic, Kattegat and Skagerrak	For operational use
Sea ice	- ditto -	Analysis Forecasts 1-5 days	Bulletin, plain language (Swedish and English) + coded information (Baltic ice code) issued by broadcast, mail (routine)	- ditto -	For operational use. Broadcast twice a day, WMO Publ. No. 9, Vol. D, Mailed daily
Sea ice	- ditto -	Analysis and forecasts 12 hrs - 5 days	Plain language by telex on request (English)	- ditto -	Provided daily during ice season
Sea ice	- ditto -	Forecasts 12 - 60 hrs	Facsimile charts	The Baltic	Produced for ice breaking authorities and icebreakers
Sea surface temperature	- ditto -	Observations	List of coastal stations, fixed points from ferries	The Baltic, Kattegat and Skagerrak	Monday, Wednesday and Friday
Sea surface temperature	- ditto -	Analysis	Issued by mail	- ditto -	Monday, Thursday
Ice accretion	- ditto -	Warnings	Plain language broadcast in connexion with weather forecast	- ditto -	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: SWEDEN

Date of submission: February 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Water level	Swedish Meteorological and Hydrological Institute (SMHI) Box 923 S-601 19 Norrköping	Forecasts	Tables for selected harbours, disseminated by telex on request	The Baltic	Provided daily
Waves	- ditto -	Observations	Plain language broadcast by radio	The Baltic and Kattegat	From near coastal stations

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNION OF SOVIET SOCIALIST REPUBLICS

Date of submission: July 1982

<u>Parameters</u>	<u>Name and full address of issuing agencies or institutes</u>	<u>Type of products, (analysis, forecasts, warnings, etc.)</u>	<u>Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)</u>	<u>Area covered</u>	<u>Remarks*</u>
Sea surface temperature	Hydrometeorological Centre of the USSR 9-13 Bolshevistskaya Street, Moscow 123376	Analysis (monthly mean)	Chart prepared on 5 of each month, available on request by mail	North Pacific	
Sea surface temperature	- ditto -	Analysis (monthly mean)	Chart prepared on 5 of each month, available on request by mail	Indian Ocean	
Sea surface temperature	- ditto -	Analysis (5-day mean)	Fax chart transmitted on 2, 7, 12, 17, 22 and 27 of each month at 12.10 GMT, routine, on frequencies 10980, 7750, 5355, 15950 kHz; IOC 0.265; 120 rev/min	Tropical zone of the world ocean	WMO Publ. No. 9, Vol. D
Sea surface temperature	- ditto -	Forecast (monthly mean, absolute values and anomalies)	Fax chart transmitted from 23 May to 23 August on 23 of each month, at 12.10 GMT, routine, on frequencies 10980, 7750, 5355, 15950 kHz; IOC 0.265; 120 rev/min	North Atlantic	
Sea wave conditions	- ditto -	Analysis	Fax chart transmitted for 00, 06, 12 and 18 GMT analysis at 05.10, 11.10, 17.10 and 22.35 GMT, routine, on frequencies 10980, 7750, 5355, 15950 kHz; IOC 0.265; 90 rev/min	North Atlantic	WMO Publ. No. 9, Vol. D

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

Name of country: UNION OF SOVIET SOCIALIST REPUBLICS

Date of submission: July 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea wave conditions	Hydrometeorological Centre of the USSR 9-13 Bolshhevistskaya Street, Moscow 123376	Forecasts for 00GMT + 24 and 48 hours	Two fax charts transmitted simultaneously at 10.45 GMT, daily routine, on frequencies 10980, 7750, 5355, 15950 kHz; IOC 0.265; 120 rev/min	North Atlantic	WMO Publ. No. 9, Vol. D
Sea wave conditions	Far-east Hydrometeorological Research Institute 24 Dzerzhinskogo St. Vladivostok 690731	Analysis for 00 GMT	Fax chart transmitted at 03.25 GMT daily on frequencies 14610, 10220, 7530, 5110, 3250 kHz; IOC 0.265; 120 rev/min	North Pacific	
Antarctic ice conditions	Hydrometeorological Centre of the USSR 9-13 Bolshhevistskaya Street, Moscow 123376	Analysis (5-day mean)	Fax chart transmitted from 21 Oct. to 21 April on 1, 6, 11, 16, and 26 of the month at 18.57 GMT on frequency 12828.7 kHz; IOC 0.265; 120 rev/min.	Near-Antarctic part of Atlantic, Pacific & Indian Oceans	
Ice conditions	N-W Territorial Admin. for Hydromet. & Control of the Nat. Env. - 23rd Liniya, 2 Vasilievsky Is. Leningrad 199026	Analysis	Fax chart transmitted on Mon., Wed., & Fri. at 14.00 GMT and Tue., Thu. & Sat. during the icing period at 07.00 GMT on frequency 5481 kHz; IOC 0.265; 60 rev/min	Baltic Sea & Gulf of Finland	
Sea surface temperature	Hydrometeorological Centre, etc.	Forecast (5-day mean, 10-day lead time)	Fax chart transmitted on 3, 13 and 23 of each month from Nov. - March at 20.10 GMT on frequencies 3360, 4850, 5285, 6950 and 4525 kHz; IOC 0.265; 60 rev/min	Black & Azov Seas	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNION OF SOVIET SOCIALIST REPUBLICS

Date of submission: July 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature, sea wave conditions and ice conditions	Kamchatsky Territorial Admin. for Hydromet. & Control of the Nat. Environment 12 Molchanova St. Petropavlovsk-Kamchatsky 683602	Analysis	Fax chart transmitted daily during the icing period at 22.30 and 05.45 GMT on frequency 11560 kHz; IOC 0.265; 90 rev/min	Bering and Okhotsk Seas east of 150 E	
Sea wave conditions	Murmansk Territorial Admin. for Hydromet. & Control of the Nat. Environment 23 Schmidt St. Murmansk 183789	Analysis for 06 GMT	Fax chart transmitted daily at 08.00 GMT on frequencies 4055, 5335 kHz and repeated at 12.50 on frequencies 4055 and 10130 kHz; IOC 0.265; 90 rev/min	Barents Sea	
Sea wave conditions	-ditto -	Analysis for 12 GMT	Fax chart transmitted daily (except on Sat. & Sun.) at 15.50 GMT on frequencies 4055, 10130 kHz; IOC 0.265; 90 rev/min	Barents Sea	
Sea wave conditions	- ditto -	Forecast for 12 GMT + 24 hours	Fax chart transmitted daily at 14.30 GMT and repeated at 18.50 GMT on frequencies 4055, 10130 kHz; IOC 0.265; 90 rev/min	Barents Sea	
Ice conditions and sea surface and bottom temperature	- ditto -	Analysis	Fax chart transmitted at 20.00 GMT on frequencies 5335, 4055 kHz; IOC 0.265; 90 rev/min	Barents Sea	

* Note: IF this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNION OF SOVIET SOCIALIST REPUBLICS

Date of submission: July 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature	Hydrometeorological Centre of the USSR 9-13 Bolshhevistskaya Street, Moscow 123376	Analysis (5-day mean)	Fax chart transmitted on 1, 6, 11, 16, 21 and 26 of each month at 12.10 GMT, routine on frequencies 10980, 7750, 5355, 15950 kHz; IOC 0.265; 120 rev/min	North Atlantic	WMO Publ. No. 9, Vol. D
Sea surface temperature	- ditto -	Forecast (5-day mean, 10-day lead time)	Fax chart transmitted from 3 October to 3 March on 3, 13, 23 of each month, at 12.10 GMT, routine, on frequencies 10980, 7750, 5355, 15950 kHz; IOC 0.265; 120 rev/min	North Atlantic	WMO Publ. No. 9, Vol. D
Sea surface temperature	Far-east Hydrometeorological Research Institute 24 Dzerzhinskogo St. Vladivostok 690731	Analysis (5-day mean)	Fax chart transmitted on 2, 7, 12, 17, 22 and 27 of each month at 12.10 GMT on frequencies 19275, 14737, 9230, 7475, 4516.7 kHz; IOC 0.265; 120 rev/min	North Pacific	WMO Publ. No. 9, Vol. D
Sea surface temperature	Hydrometeorological Centre of the USSR 9-13 Bolshhevistskaya	Forecast (5-day mean, 10-day lead time)	Fax chart transmitted on 3, 13, and 23 of each month from Oct. to March at 04.15 GMT on frequencies 19275, 14737, 9230, 7475, 4516.7 kHz; IOC 0.265; 120 rev/min	North Pacific	WMO Publ. No. 9, Vol. D
Sea surface temperature	- ditto -	Analysis (monthly mean)	Chart prepared on 5 of each month, available on request by mail	North Atlantic	

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNITED STATES OF AMERICA

Date of submission: August 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature	NOAA/NWS/NMC Ocean Services Group World Weather Bldg. 5200 Auth Road Camp Springs MD 20233	Analysis	Mail and Fax, Twice weekly, Five-day Composite	West Coast 20°N - 50°N 155°W to Coast 1 degree grid	Twice weekly Observations from ships, weather reports, data buoy
Subsurface temperature	- ditto -	Analysis	Mail - Weekly	North East Coast (100 meters) 20°N - 60°N 155°W to Coast	Climatology used when data is insufficient Actual obs. plotted
Sea surface temperature	NOAA/NWS/NMC Ocean Services Group World Weather Bldg. 5200 Auth Road Camp Springs MD 20233 with input from NOAA-Navy Joint Ice Center	Analysis	Mail Monthly Summary	Atlantic and Pacific Oceans and Gulf of Mexico	Observations from ships, data buoy & satellite
Sea surface thermal frontal charts	NOAA/NESS/NWS Washington Science Center, Rockville MD 20852	Analysis	Fax, mailed, telecopied	Northwest Atlantic, Gulf of Mexico	
Sea surface temperature	NOAA/NWS/NMC/NESS Ocean Services Group World Weather Bldg. 5200 Auth Road Camp Springs MD 20233	Analysis	Mail, Fax, Automatic Telecopier	North East Coast 35°N - 50°N 45°W into Coast	Observations from ships, weather reports, data buoy, xbt and satellite
Sea surface temperature	- ditto -	Analysis	Mail, Fax, Automatic Telecopier	South East Coast 20°N - 35°N 65°W to Gulf Coast	- ditto -

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNITED STATES OF AMERICA

Date of submission: August 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature, and location of thermal boundaries	NOAA/NWS/WSFO Ocean Services Unit BIN C 15700 Seattle WA 98115	Analysis	Fax, public display locations and mail charts May through September plain language on NOAA Weather Radio Neah Bay WA and Astoria OR	40° - 52°N Coast out to 135°W	Weekly, Surface Reports & Satellite Imagery
Sea surface temperature	NOAA/NWS	Analysis	Fax, mail, radiofax Station WFF/WFK Freq. (kHz) 9290 9389.5 11035 Time: 1212Z	Northwest Atlantic Gulf of Mexico	Twice weekly
Sea surface temperature	NOAA/NWS	Analysis, gridded	Global Telecommunication System (GTS)	Global	Every other day
Sea surface temperature	NOAA/NWS/NMC Ocean Services Group World Weather Bldg. 5200 Auth Road Camp Springs MD 20733	Analysis	GTS Two-Day Tropical Global	50°N - 50°S Five degree grid	Weekly
Surface temperature	- ditto -	Analysis	Fax and mail, Five-day Composite, Caribbean (Radio Fax) 1212Z 9290 kHz Mon/Tue 9389.5 kHz Wed/Thu/Fri 11035.0 kHz Sat/Sun	Northwest Atlantic 25° - 45°N 55°W to coast	Twice weekly Observations from ships, weather reports, data buoy
Sea surface temperature	- ditto -	Analysis	- ditto -	Gulf of Mexico 15° - 30°N 50°W to coast	- ditto -

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNITED STATES OF AMERICA

Date of submission: August 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature	NOAA/NESS Washington Science Center Rockville MD 20852	Gridded fields photo-graphic displays	Fax charts, mail, GTS	Global	Daily, weekly monthly
Sea surface temperature	NOAA/NESS Office of Operations Federal Bldg. 4 Suitland MD 20233	Analysis	Mail, Autotelecopy Weekly	North Atlantic East Coast Water 35°N - 44°N, 56°W - 76°W	AVHRR IR Digital Data, VIS imagery
Sea surface temperature (Global)	- ditto -	Analysis		Global (70°S - 70°N) Lat/Long Grid.	
Sea surface temperature (Regional)	- ditto -	Analysis		50 x 50 Lat/Long for 3 regions covering U.S. coastal zone	
Sea surface temperature	- ditto -	Analysis	Radiofax (twice daily) Autotelecopy Fax	2 additional experimental regions in tropical Pacific West Coast 28°N - 40°N 136°W to Coast	AVHRR IR imagery, ship, buoy, xbt data, coastal SST reports
Sea surface temperature with Ice Analysis	- ditto -	Analysis	Radiofax Mail National Weather Service (NWS) Fax Twice weekly	Eastern Gulf (52°N - 60°N, 128°W - 142°W), Western Gulf (54°N - 61°N, 142°W - 158°W), Bering Sea (53°N - 66°N, 156°W - 180°W)	AVHRR IR & VIS imagery, buoy & xbt data, ice reports, NWS wind forecasts

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNITED STATES OF AMERICA

Date of submission: August 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Subsurface temperature	NOAA/NWS/NMC Ocean Services Group World Weather Bldg. 5200 Auth Road Camp Springs MD 20233 with input from NOAA/Navy Joint Ice Center	Analysis	Mail Fax	West Coast	XBT Only
Oceanic fronts/eddies	Naval Eastern Oceanography Center (NEOC) Naval Air Station Norfolk, VA 23511	Analysis	Fax chart	22N090W, 22N055W 45N090W, 45N055W	Ship, aircraft satellites and buoy data
Oceanic fronts/eddies	- ditto	Analysis	Fax chart	26N082W, 26N071W 39N082W, 39N071W	- ditto -
Oceanographic Analysis	NOAA/NWS/NESS Ocean Services Group World Weather Bldg. 5200 Auth Road Camp Springs MD 20233	Analysis	Mail, Fax Autotelecopy N.W. Atlantic/Thrice Weekly S.W. Atlantic/Thrice Weekly	East Coast Water to 45°W, and Gulf of Mexico	AVHRR IR imagery ships, buoy xbt data, satellite retrievals
Primary Depth Layer & SST	U.S. Naval Oceanography Center (NOCC) Rota, Spain	Analysis	Fax chart	Eastern Mediterranean	
Primary Depth Layer & SST	- ditto -	Analysis	Fax chart	Western Mediterranean	
Primary Layer Depth	Naval Eastern Oceanography Center (NEOC) Naval Air Station Norfolk, VA 23511	Analysis	Fax chart	28N156W, 40N058E 02N083W, 08N021E	Ship and aircraft observations and climatology

Schedule is subject to change as required. A daily fax schedule is broadcast at 0000/1200Z frequencies (kHz):

NEOC, Norva 4975, 8080, 10865 continuously.	3357	2000Z - 1400Z
	16410	1400Z - 2000Z
	20015	1200Z - 2400Z

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNITED STATES OF AMERICA

Date of submission: August 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature	NOAA/NESS Office of Operations Federal Bldg. 4 Suitland MD 20233	Analysis	Mail Autotelecopy, Radiofax Weekly	Gulf of Mexico Eastern Gulf (25°N - 30°N, 81°W - 90°W) Western Gulf (26°N - 30°N, 90°W - 97°W)	AVHRR IR Digital data VIS imagery Buoy, xbt data
Sea surface temperature	Naval Eastern Oceanography Center (NEOC) Naval Air Station Norfolk, VA 23511	Analysis	Fax chart Gulf Stream, Surface temperature	51N068W, 33N074W 31N064W, 19N064W 75N065W, 75N037E 51N036W, 51N003E	Synoptic ship observations and climatology
Sea surface temperature	- ditto -	Analysis	Fax chart Surface temperature Newfoundland, Iberian Peninsula	63N038W, 37N027W 45N071W, 28N052W 32N029W, 32N004W 53N038W, 53N004E	- ditto -
Sea surface temperature	- ditto -	Analysis	Fax chart	28N156W, 40N068E 02N083W, 08N021E	- ditto -
Sea surface temperature	- ditto -	Analysis	Fax chart Gulf Stream	Western N. Atlantic (Gulf Stream)	
Sea surface temperature	Naval Western Oceanography Center (NWOC) Box 113 Pearl Harbor HI 6860	Analysis	Fax chart	60N0123E, 60N161E 05N128E, 05N161E (West Pacific)	Synoptic ship observations and climatology
Sea surface temperature	- ditto -	Analysis	Fax chart	60N101W, 60N175W 05N101W, 05N175W	- ditto -
Sea surface temperature	Naval Oceanography Command Center (NOCC) Guam	Analysis	Fax chart	60N170E, 60N115W 05N170E, 05N115W (East Pacific)	- ditto -

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNITED STATES OF AMERICA

Date of submission: August 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Advection mixed layer depths	Fleet Numerical Oceanography Center (FNOC) Monterey CA	Prognosis	Regularly scheduled fax broadcast	Northern Hemisphere	Fall 80
Iceberg drift	Commander Intl. Ice Patrol Governors Island New York NY 10004	Analysis and Forecast	Message: twice daily Facsimile chart: once daily	Grand Banks Region of North Atlantic	Seasonal (about 15 March to 15 July)
Sea ice	NOAA/NAVY Joint Ice Center, 4301 Suitland Road Washington DC 20390	Analysis, forecasts	Facsimile, mail, teletype and teletype: both routine and on request	Global	
Polar Regional ice	- ditto -	Analysis	Teletype, Coast Guard Radio, National Weather Radio, Automation of Field Operation and Services	East Coast Water to 65°W	AVHRR IR imagery
Great Lakes	- ditto -	Analysis	Great Lakes Fax Mail, Telecopy Twice Weekly (Wed/Sat)	Great Lakes	GOES, VIS, AVHRR IR imagery
Spectral ocean waves	Fleet Numerical Oceanography Center (FNOC) Monterey CA	Prognosis	Regularly scheduled fax broadcast	Global	Fall 80
Significant wave height	Naval Eastern Oceanography Center (NEOC) Naval Air Station Norfolk VA 23511	Prognosis (24 hour)	Fax chart	28N156W, 40N068E 02N083W, 03S044W (Norlant)	
Significant wave height	Naval Western Oceanography Center (NWOC) Box 113 Pearl Harbor HI	Prognosis (12 hour)	Fax chart	60N123E, 60N161W 05N123E, 05N161W	Synoptic ship observations and climatology

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNITED STATES OF AMERICA

Date of submission: August 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Significant wave height	NWOC/NWOC, Guam	Prognosis (12 hour)	Fax chart	60N100E, 60N175E 05N100E, 05N175E (West Pacific)	
Significant wave height	- ditto -	Prognosis (12 hour)	Fax chart	60N170E, 60N115W 05N170E, 05N115E (East Pacific)	
Significant wave height	- ditto -	Prognosis (36 hour)	Fax chart	60N100E, 60N175E 05N100E, 05N175E (West Pacific)	
Significant wave height	- ditto -	Prognosis (36 hour)	Fax chart	60N170E, 60N115W 05N170E, 60N115W (East Pacific)	
Schedule is subject to change as required. A daily fax schedule is broadcast at 0000/12100 frequencies (kHz):					
NWOC - 2122, 9440, 12862.5 continuously		4802.5 16398, 21785	0600 - 1800Z 1800 - 0600Z		
		NOCC - 10966, 3377.5, 22865 Guam - 10255, 13807.5, 18620 4975, 7645, 23820, 18620	continuously 0100 - 1300Z 1300 - 0100Z		
Barometric Forecast Waves & Ebb currents	NOAA/NWS/WSFO Ocean Services Unit BIN C 15700 Seattle WA 98115	Forecast/Advisory	Plain language on NOAA Weather Radio, Neah Bay WA and Astoria OR	Entrance to Grays Harbor WA	Daily

* Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: UNITED STATES OF AMERICA

Date of submission: August 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Ocean surface currents	Fleet Numerical Oceanography Center (FNOC) Monterey CA	Analysis and Prognosis	Regularly schedule fax broadcast	Northern Hemisphere	Fall 80
Sea height	U.S. Naval Oceanographic Center (NOCC) Rota, Spain	Forecast (36 hour)	Fax chart	Eastern Atlantic	
Gulf Stream Wall Bulletin	NOAA/NWS/NESS	Analysis, lat/long. Coded	Teletype, radio broadcast: Portsmouth (NMN) time 1600 and 2000Z MWF 448 kHz		

Note: If this information is already contained in any publication, please indicate it, e.g. WMO Publication No. 9, Volume D.

Date of submission: May 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Wind direction, speed State of sea Visibility Cloud cover Precipitations Fog Barometric pressure Sea surface temperature (near coast)	Pomorski meteorološki centar⁺ Prilaz VIII korpusa 11 POB No. 44 58001 Split	Storm warnings, general weather situation, present weather and sea on Adriatic Sea, weather and sea forecasts valid for 12 and 24 hours	Weather and sea bulletins in plain language (Serbo-Croat and English broadcasts) For shipping by 3 coastal radio stations - routine - For marine, tourist and sports activities by national broadcasting stations, multi-lingual - routine - Bulletins in writing with simplified weather maps and data in selected ports on the eastern Adriatic coast - on request - Advises for special cases of routing in Adriatic eastern area, according to local conditions - on request - Tide tables	Adriatic Sea and the Strait of Otranto	IMO Publ. No. 9, Vol. D In the port of Rijeka: Meteorološki ured⁺⁺ Rade Končara 26 51000 Rijeka
Water level	Bidrografski Institut Jugoslavenske ratne mornarice⁺⁺⁺ 2. Frankopanska b.b. 58000 Split	Forecast of time of occurrence and level of tide		East Adriatic coastal waters	PUBL.: TABLICE MOJSKIH MJESECI, Jadransko more - Istočna obala

† Marine Meteorological Centre
 †† Port Meteorological Office
 ††† Hydrographic Institute of the Yugoslav Navy

Note: If this information is already contained in any publication, please indicate it., e.g. WMO Publication No. 9, Volume D.

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: **YUGOSLAVIA**

Date of submission: **May 1982**

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Water level Complex oceanogr. (physical, chemical and biological) parameters, and heavy metals	Hidrografski institut Jugoslavenske ratne mornarice *** Z. Frankopanska b.b. 58000 Split - ditto -	Real-time observations (diurnal, monthly and annual mean values of tides, and extremes) Data report	Tide observational report Special Publication	East Adriatic coastal waters Adriatic Sea and Strait of Otranto	Publ.: IZVJEŠTAJ OMBROGRAFSKIM OSMATVANJIMA NA JUGOSLAVENSKOI OBALI JADRANA Research vessels A. MOHROVIĆIĆ CRUISES 1974-76. Data Report

*** Hydrographic Institute of the Yugoslav Navy

Note: If this information is already contained in any publication, please indicate it., e.g. WMO Publication No. 9, Volume D.

PART II

PLANNED PRODUCTS

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: FINLAND

Date of submission: April 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
8 Ice accretion	Institute of Marine Research Box 166, 00141 Helsinki 14	Warnings			Planned

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: GERMAN DEMOCRATIC REPUBLIC

Date of submission: October 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Sea surface temperature (°C) sea conditions (ship observations)	Meteorologischer Dienst der DDR - Seewetterdienststelle DDR-2530 Rostock - Warnemünde Seestrasse 15 a	Coded data	Data recorded on magnetic tape. Dissemination by mail on request	Western and Midbaltic North Atlantic	Planned product

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: GERMANY, FEDERAL REPUBLIC OF

Date of submission: June 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Waves (sea and swell)	Deutscher Wetterdienst Seewetteramt Bernhard-Nocht-Str.76 D-2000 Hamburg 4 Deutsches Hydrogra- phisches Institut Bernhard Nocht Str.78 2000 Hamburg 4 Deutscher Wetterdienst Seewetteramt Bernhard-Nocht-Str.76 D-2000 Hamburg 4	Forecasts, hindcasts warnings and Ship weather routing for North Atlantic and North Sea	Plain language, Fax charts (routine) Spectra (on request) Plain language (on request)	1983/84	Based on numerical model (including spectra of waves)

INFORMATION ON OCEANOGRAPHIC PRODUCTS

Name of country: SWEDEN

Date of submission: March 1982

Parameters	Name and full address of issuing agencies or institutes	Type of products, (analysis, forecasts, warnings, etc.)	Presentation and dissemination (plain language, fax charts, etc.) and availability (routine or request)	Area covered	Remarks*
Water level	Swedish Meteorological and Hydrological Institute (SMHI) Box 923 S-501 19 Norrköping	Observations	Plain language (Swedish) broadcast in connexion with weather forecast. Daily	The Baltic	Forecast planned