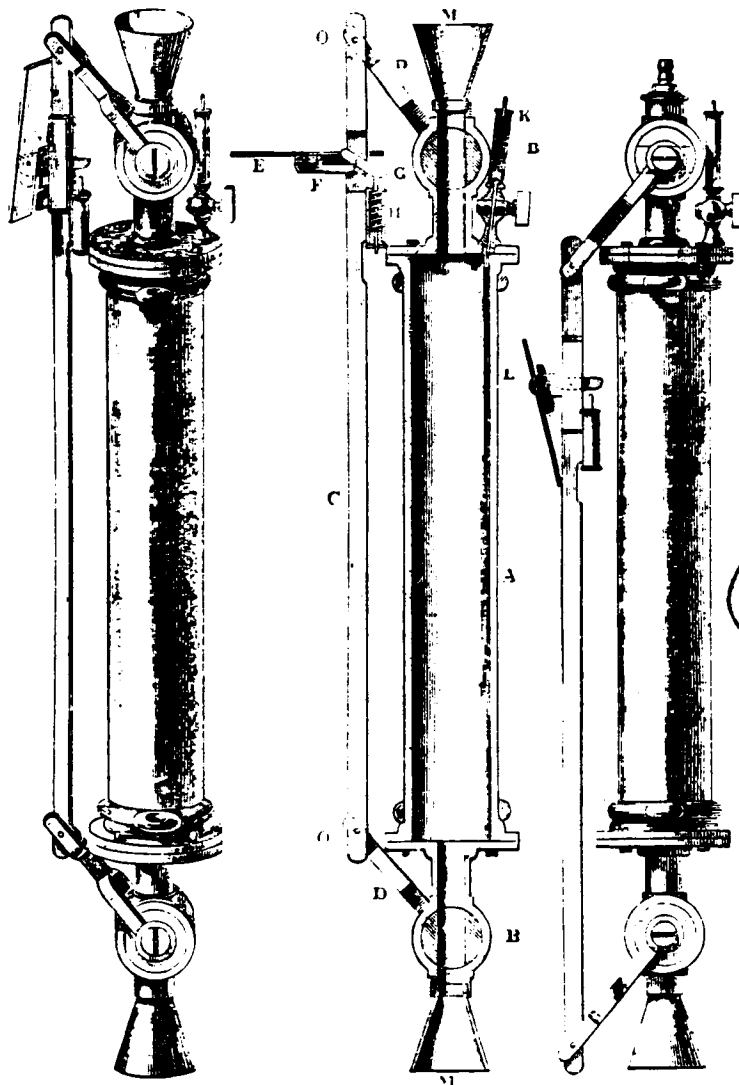




**GUIDE FOR THE UNIFORM CODING  
OF ROSCOP FORMS FOR  
MINERALS MANAGEMENT SERVICE  
GULF OF MEXICO  
OUTER CONTINENTAL SHELF  
ENVIRONMENTAL STUDIES PROGRAMS**



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COPY**

**GUIDE FOR THE UNIFORM CODING OF ROSCOP  
FORMS FOR MINERALS MANAGEMENT SERVICE  
GULF OF MEXICO OUTER CONTINENTAL SHELF  
ENVIRONMENTAL STUDIES PROGRAMS**

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TABLE OF CONTENTS

Page No.

I. INTRODUCTION.....1

II. GENERAL GUIDELINES.....2

III. ROSCOP ENTRIES.....3

    A. General Information.....3

        A00 Data Center.....3

        A40 Reference Number.....4

        A01 Expedition/Project.....4

        A11 Cruise Number or Name.....4

        A02 Ship or Platform.....5

        A12 Platform Type.....5

        A03 Country.....5

        A04 Organization.....6

        A05 Chief Scientist(s).....6

        A91 Declared national program?.....6

        A81 Exchange restricted?.....7

        A92 Co-operative program?.....7

        A72 Name of co-operative program.....7

        A82 Co-ordinated internationally?.....7

        A62 Co-ordinator of international program.....7

        A06 Name and Addresses of Organizations and Persons.....8

        A07 Beginning Date.....8

        A17 Ending Date.....9

        A08 General Ocean Areas.....9

        A09 Type(s) of Marine Zone(s).....9

        A10 Latitude.....10

        A20 Longitude.....10

        A15 Federal Support.....10

        A25 Remarks.....11

    B. Measurements, Observations, and Types of Studies.....11

        1. Column Descriptions.....12

            Number.....12

            i.....12

            I.....12

            Format.....13

        2. Category Descriptions.....13

            G Geology/Geophysics.....14

                6L Measurements Made at a Specific Location.....14

                6U Measurements Underway.....14

                6S Types of Studies.....15

            D Dynamics.....15

            M Meteorology.....15

            H Hydrography.....15

                HS Surface.....15

                HB Near Sea Floor (10 meters).....16

                HP Physical.....16

                HC Chemical.....16

            P Pollution.....16

            B Biology.....17

TABLE OF CONTENTS (continued)

	<u>Page No.</u>
BS Types of Studies.....	17
C. Localization.....	18
1. Level One.....	18
2. Level Two.....	18
Discipline and Type of Measurements.....	18
Index 10' x 10'.....	18
Qc.....	18
L.....	19
G (left column).....	19
G (right column).....	19
3. Level Three.....	20
Index 1' x 1'.....	20
APPENDICES .....	21
Appendix A. Supporting Data.....	21
INDEX .....	29

## I. INTRODUCTION

These guidelines are intended for use by researchers in the Minerals Management Service (MMS) Environmental Studies Program for the Gulf of Mexico in preparing the National Oceanographic Data Center (NODC) "Report of Observations/Samples Collected by Oceanographic Programs (ROSCOP) Second Edition" (NOAA Form 24-23 (1-76)). They will also be of interest to others participating in similar programs.

The MMS Environmental Studies Program utilizes the ROSCOP as a first level of data inventory. It is, therefore, desirable to standardize the reporting of this information, and this paper attempts to develop guidelines for that standardization. In the course of this development, approximately 160 ROSCOP forms covering studies over the past decade were reviewed and recoded. This review provides the basis for the recommendations in these guidelines.

This document considers each field of the ROSCOP form individually and establishes its definition, purpose, and content. The content is further defined in terms of input format, style, abbreviations, punctuation, and special conventions. Finally, illustrative examples and common usages based on actual reports are provided where appropriate.

## II. GENERAL GUIDELINES

In most cases, the completion of a ROSCOP will be a contractual requirement. Following the few simple general rules listed below will greatly simplify the fulfillment of this obligation.

1. Make sure you have NOAA Form 24-23 (1-76). Older versions should be discarded. Forms are available from NOAA in bound booklets of about 20 sets of forms with two pages of instructions inside the front cover.
2. Forms should be completed by the chief scientist immediately following the cruise! This is a very important debriefing.
3. Be thorough when completing forms but avoid excessive detail. Remember, this is a first level data inventory.
4. Mandatory entries must be completed. Optional entries are conditional on their pertinence to the cruise.
5. Completed forms should be submitted to your Contracting Officer's Technical Representative (COTR) for review, approval, and forwarding to NOAA.

### III. ROSCOP ENTRIES

The ROSCOP form consists of four pages (see Appendix A for sample forms). The first page contains information of a general nature and also localization information. The next three pages contain information regarding the type of observations or samples collected.

The form should be completed in the following order. Note that entries may be required in A25 Remarks during the completion of any one of the three parts; however, the guidelines for A25 are given at the end of Section III-A.

1. The upper one-half (through A15) of the first page. The guidelines are given in Section III-A.
2. The second through fourth pages. The guidelines are given in Section III-B.
3. The lower one-fourth of the first page. The guidelines are given in Section III-C.

In the guidelines that follow, the attributes and their definitions listed below are used. Obviously, all attributes are not pertinent to every entry.

<u>Attribute name</u>	<u>Attribute</u>
Label	Label of an entry
Name	Name of an entry
Purpose	Intended purpose for an entry
Content	Logical content of an entry
Input format	Logical format of an entry
Style	Physical format of an entry
Abbreviations	Abbreviations used in an entry
Acronyms	Acronyms used in an entry
Punctuation	Punctuation required in an entry
Capitalization	Capitalization required in an entry
Special conventions	Special considerations for the entry
Code	Set of codes to select from for an entry
Examples	Typical examples of an entry
Common usage	Commonly used entry based upon actual reports
Use	Conditions of use (mandatory or optional)

#### A. General Information

Following are guidelines for the completion of the upper three-fourths of the first page (through A25) of the ROSCOP. The entries are described in the general order that they appear on the form. The pertinent attributes of each entry are described and typical examples are given. See also "Information for Completing ROSCOP Entries" in Appendix A.

```

+-+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
Label:           A00
Name:            Data Center
Use:             Reserved for NOAA use

```



```

+-----+
Label:           A40
Name:            Reference Number
Use:             Reserved for NOAA use

```

```

+-----+
Label:           A01
Name:            Expedition/Project
Purpose:         This entry identifies the program, expedition, or
                  project under which the cruise was conducted.
Content:         A unambiguous name or acronym assigned by the
                  organization conducting the cruise. In FY 1984 MMS
                  began assigning a code consisting of five
                  alphanumeric characters to each project. These
                  should be placed in parentheses after the project
                  name.
Input format:    Variable length, alphanumeric.
Style:           Free format.
Abbreviations:   Define in Remarks [A25].
Acronyms:        Define in Remarks [A25].
Punctuation:    Acronyms have no imbedded or terminating periods.
                  Abbreviations are terminated with a period.
Capitalization: Initial capitals except for acronyms which are all
                  uppercase.
Examples:        MAFLA Baseline Study (0070A)
                  STOCS Monitoring Study (0083A)
Use:             Mandatory

```

```

+-----+
Label:           A11
Name:            Cruise Number or Name
Purpose:         This entry identifies the specific cruise conducted
                  under the Expedition/Project [A01].
Content:         A number and/or unambiguous name or acronym assigned
                  by the organization conducting the cruise. (For
                  projects with a single cruise, this entry may be
                  identical to [A01]).
Input format:    Variable length, alphanumeric.
Style:           Free format.
Abbreviations:   Define in Remarks [A25].
Acronyms:        Define in Remarks [A25].
Punctuation:    Acronyms have no imbedded or terminating periods.
                  Abbreviations are terminated with a period.
Examples:        MMS-12
                  Cruise I, spring
                  MMS-Benthos I
Use:             Mandatory

```

```

+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
Label:          A02
Name:           Ship or Platform
Purpose:        This entry identifies the name and international
                radio call sign of the ship or platform from which
                the measurements were made.
Content:        The official ship or platform name and radio call
                sign including the vessel type, if applicable, as a
                prefix.
Input format:   Variable length, alphanumeric.
Style:          Free format.
Punctuation:   Enclose radio call letters in parentheses.
Capitalization: Initial capitals for names.
                All upper case for call letters.
Special conventions: Use R/V prefix for research vessels.
                    Use M/V prefix for merchant vessels.
                    Use F/V prefix for fishing vessels.
                    Describe other similar conventions in Remarks [A25].
Example:        R/V Kana Keoki (WYZZ003)
Use:           Mandatory

```

```

+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
Label:          A12
Name:           Platform Type
Purpose:        This entry identifies the platform type from which
                the measurements were made.
Content:        A two-digit numeric code.
Input format:   Fixed length, numeric.
Style:          Enter code with leading zero.
Code:          Select appropriate code from:
                01  research ship
                02  non-specialized ship
                03  satellite
                04  balloon
                05  aircraft
                06  anchored buoy
                07  drifting buoy
                08  submerged float (anchored)
                09  submerged float (drifting)
                10  fixed platform
                11  fixed coastal station
                12  drifting ice
                13  submersible
                14  other
Example:        01
Use:           Mandatory

```

```

+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
Label:          A03
Name:           Country

```

Content: The name of a country.  
Input format: Variable length, alphanumeric.  
Style: Free format.  
Abbreviations: None except USA unless defined in Remarks [A25].  
Example: USA  
Use: Mandatory

+-----+

Label: A04  
Name: Organization  
Purpose: This entry identifies the organization actually conducting the operation.  
Content: The name or acronym of an organization.  
Input format: Variable length, alphanumeric.  
Style: Free format.  
Abbreviations: Define in Remarks [A25].  
Acronyms: Define in Remarks [A25].  
Punctuation: Acronyms have no imbedded or terminating periods. Abbreviations are terminated with a period.  
Capitalization: Initial capitals except for acronyms which are all uppercase.  
Examples: Texas A&M University  
SUSIO  
NOAA-AOML and MMS  
Use: Mandatory

+-----+

Label: A05  
Name: Chief Scientist(s)  
Purpose: This entry identifies the person in charge of the scientific work during the period covered by this report.  
Content: Name(s)  
Input format: Variable length, alphanumeric.  
Style: The format is first name (or initial), space, middle initial (or name), space, surname, comma, title.  
Punctuation: Initials and titles have no periods following them. Multiple names are separated by a semicolon and a space.  
Special conventions: Avoid the use of the prefix titles if possible (e.g. Mr, Dr, Ms, etc).  
Examples: C A Bedinger, Jr; Ralph E Childers  
E George Myers  
Use: Mandatory

+-----+

Label: A91  
Name: Declared national program?  
Purpose: This entry indicates whether the project has been declared as a national program.  
Content: Check mark under "yes", "no", or "part".  
Input format: Check mark.  
Use: Mandatory



Examples: R L Molinari  
 IOS

Use: Optional

+-----+

Label: A06

Name: Name and Addresses of Organizations and Persons

Purpose: This entry identifies the names and addresses of organizations or individuals responsible for the original measurements and for the resulting data.

Content: Names and addresses of organizations or individuals.

Input format: Variable length, alphanumeric.

Style: The format for individuals is first name (or initial), space, middle initial (or name), space, surname, comma, title.

The format for organizations is generally no more than two hierarchical levels of an organization, in descending order.

The format for addresses is a complete mailing address, including ZIP code.

Each name or address line ends with a period.

Abbreviations: USA. Two-letter state designations set forth by the US Post Office. Common street and avenue abbreviations. PO Box.

Acronyms: Define in Remarks [A25].

Punctuation: Initials, titles, acronyms, and abbreviations have no periods imbedded or following.

Special conventions: Use separate sheet clearly labeled for more space.

Put names and addresses for those responsible for original measurements in the column entitled "Whom to Query" and assign an appropriate and unique (letter)1 to each.

Put names and addresses for those responsible for final data in the column entitled "Final Disposition of Data" and assign an appropriate and unique (letter)2 to each.

Example: A1 T Pyle.  
 University of South Florida.,  
 St Petersburg, FL 33701.

A2 Francis Mitchell. NOAA. Data Acquisition and Management Branch, Code D-713. Page Bldg No 1, Room 276. 2001 Wisconsin Ave, NW. Washington, DC 20235.

Use: Mandatory

+-----+

Label: A07

Name: Beginning Date

Purpose: This entry defines the beginning date of the period covered by the report. (Normally the time of setting sail).

Content: The day, numeric month, and the last two digits of the year.

Input format: Fixed length, numeric.



- 03 intertidal or nearshore zone
- 04 coastal zone
- 05 offshore zone in inland sea
- 06 open sea (ocean)
- 07 continental shelf
- 08 continental margin
- 09 major ridges, fractures
- 10 seamounts, guyots and atolls
- 11 abyssal plain
- 12 troughs
- 13 Great Lakes (US, Canada)
- 14 lakes (other)
- 99 other

Punctuation: Separate multiple codes with a semicolon and a space.  
 Example: 07; 08  
 Use: Mandatory

+-----+

Label: A10  
 Name: Latitude  
 Purpose: This entry defines the latitude of the geographic area. Used only if data were collected at a fixed station.  
 Content: Degrees, minutes, seconds and hemisphere.  
 Input format: Fixed length, numeric.  
 Style: Enter the correct numbers in each box and circle either "N" or "S" to indicate the proper hemisphere.  
 Use: Optional

+-----+

Label: A20  
 Name: Longitude  
 Purpose: This entry defines the longitude of the geographic area. Used only if data were collected at a fixed station.  
 Content: Degrees, minutes, seconds and hemisphere.  
 Input format: Fixed length, numeric.  
 Style: Enter the correct numbers in each box and circle either "E" or "W" to indicate the proper hemisphere.  
 Use: Optional

+-----+

Label: A15  
 Name: Federal Support  
 Purpose: This entry identifies Federal agency support, if any.  
 Content: The name or acronym of the Federal agency and the contract number, or "none".  
 Input format: Variable length, alphanumeric.  
 Style: Free format.  
 Abbreviations: Define in Remarks [A25].  
 Acronyms: Define in Remarks [A25].  
 Punctuation: The name or acronym is separated from the contract number by a semicolon and a space.  
 Special conventions: Enter "none" if no Federal support.

Full contract numbers are preferred; however, so-called "short numbers" (the last segment of the contract number) may be used (e.g. CT8-17, IAS-19, MUS-40, 30027).

Examples: Minerals Management Service; 14-12-0001-30027  
MMS; 30027  
BLM; AASS0-CT7-15  
Use: Mandatory

+-----+

Label: A25  
Name: Remarks  
Purpose: This entry provides for remarks, definitions, and other supporting information as required.  
Content: Anything.  
Input format: Variable length, alphanumeric.  
Style: Each remark begins a new line.  
Each remark is numbered with a unique arabic number. The text of the remark is indented so that its number stands out.  
For citing names, organizations, and addresses follow guidelines in A06.

Abbreviations: Define at first use.  
Acronyms: Define at first use.  
Numbers: 1-10 spell out, except when number is a unit of measure (e.g., 1 meter).  
10+ use number.

Punctuation: Remark numbers are separated from remark text by a period and at least one space.  
Labels (or other unambiguous references to other parts of the report) cited in the text of a remark are enclosed in square brackets.

Special conventions: If the remark pertains to a particular part of the report, include the respective label in the text of the remark.

Examples:  
1. Minerals Management Service (MMS).  
2. State University System of Florida, Institute of Oceanography (SUSIO) [A04].  
3. This could be any remark to clarify any portion of the report. There may be more than one sentence in a remark.

Use: Optional

+-----+

### B. Measurements, Observations, and Types of Studies

This section pertains to the second through fourth pages of the ROSCOP form. The ROSCOP form instructions identify this section of the report with the ambiguous title "Information to be Supplied for Each Heading in the Various Categories". The pertinent attributes of each entry are described and typical examples are given. See also "Information for Completing ROSCOP Entries" in Appendix A.



## 1. Column Descriptions

Following are guidelines for the entry of information in the columns designated as "Number", "i", "I", and "Format" on pages two through four of the ROSCOP form.

+-+-+-+  
Column name: Number  
Purpose: The purpose of this entry is to indicate the number of stations at which measurements, observations, or samples of the respective type were taken.  
Content: A number (in the appropriate units) or an "X".  
Input format: Free format.  
Style: Dependent upon the type of data collected.  
Special conventions: Enter an "X" if the number of stations is unknown but information of the type was known to have been obtained during the cruise.  
Examples: 123  
X  
Use: Required if, measurements, observations, or samples of the type were collected.

+-+-+-+  
Column name: i  
Purpose: This entry identifies the individual or organization who was responsible for the original measurements, observations, or samples.  
Content: A two-character code.  
Input format: Fixed length, alphanumeric.  
Style: Enter an uppercase letter followed immediately by the numeral "1".  
Special conventions: The (letter)1 code references the entry "Name and Addresses of Organizations and Persons" [A06], and, specifically, the column "Whom to Query" of that entry on the first page of the ROSCOP form.  
Examples: A1  
X1  
Use: Required if, measurements, observations, or samples of the type were collected.

+-+-+-+  
Column name: I  
Purpose: This entry identifies the individual or organization who is responsible for and in possession of the results of the original measurements, observations, or samples.  
Content: A two-character code.  
Input format: Fixed length, alphanumeric.  
Style: Enter an uppercase letter followed immediately by the numeral "2".  
Special conventions: The (letter)2 code references the entry "Name and Addresses of Organizations and Persons" [A06], and, specifically, the column "Final Disposition of Data" of that entry on the first page of the ROSCOP form.







```

+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
Section:                H    Hydrography
Subsection:            HB    Near Sea Floor (< 10 meters)
Line labels:          H05-H08
Purpose:              This group of entries provides detail for temperature
                      and/or salinity measurements made within ten meters
                      of the ocean floor.

Special Conventions:  None.
Common usage:        H07 Discrete temperature measurements
                      H08 Discrete salinity measurements

```

```

+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
Section:                H    Hydrography
Subsection:            HP    Physical
Line labels:          H09-H18 & H80
Purpose:              This group of entries provides detail for physical
                      oceanographic measurements.

Special Conventions:  None.
Common usage:        H10 Vertical profiles (STD/CTD)
                      H13 Bathythermograph-expendable
                      H16 Transparency
                      H17 Optics

```

```

+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
Section:                H    Hydrography
Subsection:            HC    Chemical
Line labels:          H21-H33 & H90
Purpose:              This group of entries provides detail for chemical
                      oceanographic measurements.

Special Conventions:  None.
Common usage:        H21 Oxygen
                      H22 Phosphates
                      H24 Nitrates
                      H29 Chlorinity
                      H30 Trace elements
                      H33 Dissolved gasses (eg LMW1 hydrocarbons)
                      H34 Hydrocarbon concentrations2 (HMW3 hydrocarbons)

```

```

-----
1  Low molecular weight
2  Supplemental code
3  High molecular weight

```

```

+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
Section:                P    Pollution
Subsection:
Line labels:          P01-P90
Purpose:              This group of entries provides detail for ocean
                      pollution measurements, observations, or samples.

Special Conventions:  None.

```

+--+

Section: B Biology  
 Subsection:  
 Line labels: B01-B37 & B80  
 Purpose: This group of entries provides detail for biological measurements, observations, or samples. It normally supplements information entered under B5.  
 Special Conventions: None.  
 Common usage:  
 B01 Primary productivity  
 B02 Phytoplankton pigments  
 B07 Bacterial and pelagic microorganisms  
 B08 Phytoplankton  
 B09 Zooplankton  
 B10 Neuston  
 B11 Nekton  
 B16 Benthic bacteria and microorganisms  
 B17 Phytobenthos  
 B18 Zoobenthos  
 B30 Bioluminescence  
 B33 Hydrocarbon concentrations  
 B35 ATP-ADP-AMP concentrations  
 B38 Foraminifera<sup>1</sup>  
 B39 Nanoplankton<sup>1</sup>  
 B40 Trace metal concentrations<sup>1</sup>

-----  
 1 Supplemental code

+--+

Section: B Biology  
 Subsection: B5 Types of Studies  
 Line labels: B51-B67 & B90  
 Purpose: This group of entries provides detail regarding the types of biological studies conducted. It normally supplements information entered under B.  
 Special Conventions: None.  
 Common usage:  
 B51 Identification  
 B52 Spatial and temporal distribution  
 B53 Monitoring and surveillance  
 B54 Biomass determination  
 B59 Taxonomy, systematics, classification  
 B62 Pathology, parasitology

+--+







+-+-+-

### 3. Level Three

The guidelines in this section pertain to the location information in the bottom quarter of the first page of the ROSCOP form. They deal specifically with the 1° latitude x 1° longitude squares.

Level three supplies further details relating to level two localization. Therefore all level two entries should be completed before beginning level three entries.

Following are the details for the completion of this section of the ROSCOP. The pertinent attributes of each entry are described and typical examples are given. See also "Information for Completing ROSCOP Entries" in Appendix A.

+-+-+-

Column heading:	Index 1° x 1°
Purpose:	This entry partially identifies the latitude and longitude of the 1° x 1° square for the particular discipline and type of measurement. It is used in conjunction with the 10° x 10° squares.
Content:	One or more two-digit numbers.
Input format:	Variable length, numeric.
Style:	Free format.
Punctuation:	Separate the two-digit numbers with a semicolon.
Special conventions:	The first digit of a pair represents the units portion of the latitude of a 1° x 1° square within the 10° x 10° square specified on the same line.  The second digit of a pair represents the units portion of the longitude of the 1° x 1° square within the 10° x 10° square specified on the same line.  A latitude/longitude pair applies to the corner of the square with the smallest latitude and longitude.  See the ROSCOP instructions in Appendix A for more information and examples.
Examples:	Assume a 10° x 10° square at: 20°N latitude and 90°W longitude and two 1° x 1° squares at: 28°N latitude and 91°W longitude and 27°N latitude and 96°W longitude. The resulting entries should be: 81;76
Use:	Recommended

+-+-+-

APPENDIX A. SUPPORTING DATA

# INTRODUCTION

The Report of Observations/Samples Collected by Oceanographic Programs (ROSCOP) is intended as an important new mechanism in support of the international oceanographic data exchange system. Compilation of ROSCOP forms will provide the basis for timely inventories of data and samples resulting from on-going programs available for international exchange. ROSCOP is thus intended to fill the gap between the first announcement of an oceanographic program to the Intergovernmental Oceanographic Commission (IOC) and the eventual cataloging of data actually received by the World Data Centers (WDC's) or National Data Centers. Further, the ROSCOP inventory could be used by the international scientific community to provide a referral service to data which may not be routinely exchanged through the WDC system.

The ROSCOP form has been recommended for immediate use and will be kept under constant review by the Intergovernmental Oceanographic Commission's Working Group on International Oceanographic Data Exchange.

All U.S. activities should send the form as soon as practicable after completion of a cruise or observational program to:

National Oceanographic Data Center  
National Oceanic and Atmospheric Administration  
Department of Commerce  
Rockville, Maryland 20852

## LIMITS OF OCEANS AND SEAS (IHB Special Publication No. 23)

- |  |  |                                    |
|--|--|------------------------------------|
| 1 Baltic Sea                                 | 28C Strait of Gibraltar                | 48G Banda Sea                      |
| 1A Gulf of Bothnia                           | 28D Alboran Sea                        | 48H Arafura Sea                    |
| 1B Gulf of Finland                           | 28E Balearic Sea (or Iberian Sea)      | 48I Timor Sea                      |
| 1C Gulf of Riga                              | 28F Ligurian Sea                       | 48J Flores Sea                     |
| 2 Kattegat, Sound and Belts                  | 28G Tyrrhenian Sea                     | 48K Gulf of Boni                   |
| 3 Skagerrak                                  | 28H Ionian Sea                         | 48L Bali Sea                       |
| 4 North Sea                                  | 28I Adriatic Sea                       | 48M Makassar Strait                |
| 5 Greenland Sea                              | 28J Aegean Sea                         | 48N Java Sea                       |
| 6 Norwegian Sea                              | 29 Sea of Marmara                      | 48O Savu Sea                       |
| 7 Barents Sea                                | 30 Black Sea                           | 49 South China Sea (Nan Hai)       |
| 8 White Sea                                  | 31 Sea of Azov                         | 50 East China Sea (Tung Hai)       |
| 9 Kara Sea                                   | 32 South Atlantic Ocean*               | 51 Yellow Sea (Hwang Hai)          |
| 10 Laptev (or Nordenskjold) Sea              | 32A SE Atlantic (Limit 20°W)           | 52 Sea of Japan                    |
| 11 East Siberia Sea                          | 32B SW Atlantic (Limit 20°W)           | 53 Inland Sea (Seto Naikai)        |
| 12 Chukchi Sea                               | 33 Rio de la Plata                     | 54 Sea of Okhotsk                  |
| 13 Beaufort Sea                              | 34 Gulf of Guinea                      | 55 Bering Sea                      |
| 14 Northwest Passage                         | 35 Gulf of Suez                        | 56 Philippine Sea                  |
| 14A Baffin Bay                               | 36 Gulf of Aqaba                       | 57 North Pacific Ocean*            |
| 15 Davis Strait                              | 37 Red Sea                             | 57A NW Pacific (Limit 180°)        |
| 15A Labrador Sea                             | 38 Gulf of Aden                        | 57B NE Pacific (Limit 180°)        |
| 16 Hudson Bay                                | 39 Arabian Sea                         | 58 Gulf of Alaska                  |
| 16A Hudson Strait                            | 40 Gulf of Oman                        | 59 Coastal Waters of SE Alaska and |
| 17 Arctic Ocean                              | 41 Gulf of Iran (Persian Gulf)         | 59A British Columbia               |
| 17A Lincoln Sea                              | 42 Laccadive Sea                       | 60 Gulf of California              |
| 18 Inland Sea off the West Coast of Scotland | 43 Bay of Bengal                       | 61 South Pacific Ocean*            |
| 19 Irish Sea and St. George's Channel        | 44 Andaman or Burma Sea                | 61A SE Pacific (Limit 140°W)       |
| 20 Bristol Channel                           | 45 Indian Ocean                        | 61B SW Pacific (Limit 140°W)       |
| 21 English Channel                           | 45A Mozambique Channel                 | 62 Great Australian Bight          |
| 22 Bay of Biscay                             | 46 Malacca and Singapore Straits       | 62A Bass Strait                    |
| 23 North Atlantic Ocean*                     | 46A Strait of Malacca                  | 63 Tasman Sea                      |
| 23A NE Atlantic (Limit 40°W)                 | 46B Strait of Singapore                | 64 Coral Sea                       |
| 23B NW Atlantic (Limit 40°W)                 | 47 Gulf of Thailand (Siam)             | 65 Solomon Sea                     |
| 24 Gulf of St. Lawrence                      | 48 East Indian Archipelago (Indonesia) | 66 Bismarck Sea                    |
| 25 Bay of Fundy                              | 48A Sulu Sea                           |                                    |
| 26 Gulf of Mexico                            | 48B Celebes Sea                        |                                    |
| 27 Caribbean Sea                             | 48C Molucca Sea                        |                                    |
| 28 Mediterranean Sea                         | 48D Gulf of Tomini                     |                                    |
| 28A Western Basin                            | 48E Halmahera Sea                      |                                    |
| 28B Eastern Basin                            | 48F Ceram Sea                          |                                    |

\* Indicated subdivisions do not appear in publication IHB No. 23.

# INSTRUCTIONS FOR COMPLETING ROSCOP ENTRIES

(Please use black ink or black pencil to facilitate reproduction)

## A - GENERAL INFORMATION

**A00** This section is reserved for the "Responsible" Data Center, which will enter therein its own reference to be used in future exchanges of data between centers.

**A01/** Enter the name, acronym and cruise number which the **A11** body in charge uses to designate the expedition or project.

**A02/** Enter the full name and international radio call sign of the ship or platform from which the measurements were made. Specify the type of ship or platform using table 1:

TABLE 1

01	research ship
02	non-specialized ship
03	satellite
04	balloon
05	aircraft
06	anchored buoy
07	drifting buoy
08	submerged float (anchored)
09	submerged float (drifting)
10	fixed platform
11	fixed coastal station
12	drifting ice
13	submersible
14	other

**A03** Enter the name of the country to which the body financing or in charge of the operation belongs.

**A04** Enter the name of the organization financing or in charge of the operation.

**A05** Enter the name of the person in charge of the scientific work (chief scientist) during the period covered by the report.

**A06** Enter the names and addresses of the bodies or individuals responsible for the measurements (A1, B1, ... Z1) and the bodies or individuals who may be requested to supply the original measurements (A2, B2, ... Z2). In columns i and I on the following pages enter respectively the letters/numbers designating those responsible for and those in possession of the measurements indicated.

**A07/** Enter the dates (day, month, year) of the beginning and **A17** end of the period covered by the report (generally from the time of setting sail to the return to a port).

**A08** Enter the codes for the names of the oceans and seas in which the ship operates, using the definition of their limits supplied by the International Hydrographic Organization, Monaco - special publication No. 23 (see above).

**A09** Enter the codes(s) for the type of marine zone(s) covered during the period to which the report applies. All cases encountered for all disciplines should be entered using table 2:

TABLE 2

01	river mouth, estuary
02	zone connected with the sea (harbors, lagoons, salt-water pools)
03	intertidal or nearshore zone
04	coastal zone
05	offshore zone in inland sea
06	open sea (ocean)
07	continental shelf
08	continental margin
09	major ridges, fractures
10	seamounts, guyots and atolls
11	abyssal plain
12	trenches
13	Great Lakes (U.S., Canada)
14	Lakes (other)
99	other

**A15** Enter the Federal supporting agency (NSF, ONR, ERDA, NOAA Sea Grant, etc.).

**A25** The "remarks" space should be used to supplement or clarify the information provided. A separate sheet to be submitted with this report, may be used for additional notes.

**A91** Check box "yes" or box "no" according to whether the operation is or is not a part of a "Declared National Program" (DNP). If only parts of it are DNP, check box "part" in this section. In the latter case further details should be given for each type of data in the form of a note in REMARKS. No entry should be made in this section if DNP status has not been determined at the time of preparation of the form.

**A81** If the exchange of all or of certain data is subject to conditions, indicate this by checking box "yes" or box "no."

**A92** Check box "yes" or box "no" according to whether the operation is or is not part of a co-operative program.

**A72** If "yes," give its name in the space provided.

**A82** Check box "yes" or box "no" according to whether the operation is or is not part of an internationally co-ordinated program.

**A62** If "yes," give the name of the co-ordinator in the space provided.

## B - INFORMATION TO BE SUPPLIED FOR EACH HEADING IN THE VARIOUS CATEGORIES

**Number of stations:** the manner in which the quantity of observations obtained is to be shown depends on the type of data collected. Enter the following as appropriate, in the "number" column corresponding to each type of data:

1. **Number of stations:** the number of stations at which one or more measurements or samples of the type have been obtained. Do not report the total number of discrete measurements or samples obtained unless only one measurement was made at each station.

2. A number (in the appropriate units) for certain types of data to indicate such information as the nautical miles steamed while the particular measurement was being made or the number of samples. The number of stations involved in the measurement may, however, also be shown, if necessary, indicating this by "station."

3. An "X", if the number of stations cannot be given and if it is desired to indicate that information of this type has been obtained at some time during the cruise.

i - I: see explanations under A06.

**FORMAT:** specify, in the "format" column, the form of the original raw data by entering the appropriate code(s) from table 3:

TABLE 3

1	manuscript or publication
2	automatic printing
3	graph recording
4	punched card
5	punched tape
6	analogue recording on magnetic tape
7	digital recording on magnetic tape
8	photograph
9	samples
0	other or unspecified

**C - LOCALIZATION**

Information concerning the localization of the areas in which observations have been collected may be given on the form in three different levels of details, of which one is compulsory.

(a) *Level one* (optional) is shown under heading A08 concerning general information on the cruise. It is a matter of merely indicating the name or names of the oceans and seas frequented (using the nomenclature of the International Hydrographic Organization - see table 2);

(b) *Level two* (compulsory) corresponds to the marking, in respect of each category of measurement, of the 10° latitude x 10° longitude squares in which these measurements have been carried out (10° x 10° index);

(c) *Level three* (recommended) supplies further details relating to level two information. Information is given, in respect to each category of data or measurement, and in each 10° x 10° square, as to the 1° x 1° squares to which the measurements (1° x 1° index) in fact apply.

The 10° x 10° and 1° x 1° indices ((b) (c)) are determined in the following manner:

**Index 10° x 10°**

1. *Discipline and type of measurements:* Enter in this column the name or abbreviation (HC for chemistry, for example) of the discipline concerned. If measurements of several parameters have been taken within the same square, enter these on the same line. If not, record them separately (in the example shown, table 4, HC appears twice).

**Remarks.**

In certain cases an annotated chart showing the route followed and the points where measurements were obtained may replace the 1° x 1° index.

TABLE 4

Discipline and type of measurements	Index 10° x 10°				Index 1° x 1°
	Qc	L	G	G	
P, M, HC	3	3	1	4	
	3	3	1	5	
	3	3	1	6	
HC	3	3	1	7	
D	3	3	0	7	

2. *10° squares:* In the Qc column, give the quadrant of the globe (Qc) according to World Meteorological Organization Code 3333 reproduced schematically in table 5. In column L indicate the latitude in tens of degrees of the 10° square concerned, and in the G G columns the hundreds and the tens digits for the longitude in degrees of the same square; e.g. the 10° square from 30°N to 40°N and 40°W to 50°W would be coded 7304.

TABLE 5

Code figure	Qc - Quadrant of the globe		N	Greenwich meridian	Qc = 1 E
	Latitude	Longitude			
1	North	East	W	Equator	
3	South	East			
5	South	West		Qc = 5	Qc = 3
7	North	West		S	

**Index 1° x 1° (optional)**

1. *Discipline and type of measurements:* Give either discipline concerned or a specific type of data of that discipline (represented by its abbreviated reference).

2. *1° squares:* In this column indicate, on the line corresponding to the appropriate discipline (or specific type of data) and after the entry for the 10° x 10° square concerned, the two-figure numbers made up of the unit figures of the latitude and longitude relating to the 1° x 1° squares in which observations have been made (see table 6).

TABLE 6

Discipline and type of measurements	Index 10° x 10°				Index 1° x 1°
	Qc	L	G	G	
D, HP	1	2	0	6	23;32;42
M03	7	3	0	4	27;28;29
M03	7	3	0	5	42;53

This shows:

Dynamics and Physical Oceanography in squares

22° (to 23°) N, 063° (to 064°) E

23° (to 24°) N, 062° (to 063°) E

and 24° (to 25°) N, 062° (to 063°) E

Meteorology (air-sea interface) in squares

32° (to 33°) N, 047° (to 048°) W

32° (to 33°) N, 048° (to 049°) W

etc.



G - GEOLOGY GEOPHYSICS					G - GEOLOGY GEOPHYSICS (Continued)			
					NUMBER			FORMAT
<b>GL MEASUREMENTS MADE AT A SPECIFIC LOCATION</b>					<b>GS TYPES OF STUDIES</b>			
	NUMBER	i		FORMAT	G31	Physical analysis of sediments		
G01	Dredge				G32	Chemical analysis of sediments		
G02	Grab				G33	Paleothermy		
G03	Core rock (no. of cores)				G34	Paleomagnetism and rock magnetism		
G04	Core-soft bottom (no. of cores)				G35	Paleontology		
G05	Sampling by divers				G36	Geothermy		
G06	Sampling by submersible				G37	Geochronology		
G07	Drilling -				G38	Mineral and fossil resources		
G08	Bottom photography				G39	Littoral zone studies		
G09	Sea floor temperature (≤ 1 m from bottom)				G90	Other measurements		
G10	Acoustical properties of the sea floor				<b>D - DYNAMICS</b>			
G11	Engineering properties of the sea floor				D01	Current meters (no. of stat.)		
G12	Magnetic properties of the sea floor				D02	Current meters (Average duration of measurement days)		
G13	Gravimetric properties of the sea floor				D03	Currents measured from ship drift		
G14	Radioactivity measurements				D04	GEK		
G70	Other measurements				D05	Drifters (number)		
					D06	Swallow floats (number)		
					D07	Drift cards (no. released)		
<b>GU MEASUREMENTS UNDERWAY</b>					D08	Bottom drifters (no. released)		
G21	Motion picture of sea floor (No. of nautical miles)				D09	Tidal observation (duration)		
G22	Bathymetry-wide beam (no. of nautical miles)				D10	Sea and swell (no. of observations)		
G23	Bathymetry-narrow beam (no. of nautical miles)				D90	Other measurements		
G24	Side scan sonar (no. of nautical miles)				<b>M - METEOROLOGY</b>			
G25	Seismic reflection (no. of nautical miles)				M01	Upper air observations		
G26	Seismic refraction (no. of nautical miles)				M02	Incident radiation		
G27	Gravimetry				M03	Air-sea interface studies		
G28	Magnetism				M04	Ice observations		
G29	Other measurements				M05	Occasional standard measurements		
					M06	Systematic standard measurements		
					M90	Other measurements		

H- HYDROGRAPHY											
HS SURFACE		NUMBER			FORMAT	HC CHEMICAL		NUMBER			FORMAT
H01	Continuous temperature recording					H26	Silicates				
H02	Continuous salinity recording					H27	Alkalinity				
H03	Discrete temperature measurements					H28	pH				
H04	Discrete salinity measurements					H29	Chlorinity				
<b>NEAR SEA FLOOR (<math>\leq 10</math> m)</b>						H30	Trace elements				
H05	Continuous temperature recording					H31	Radioactivity				
H06	Continuous salinity recording					H32	Isotopes				
H07	Discrete temperature measurements					H33	Dissolved gases				
H08	Discrete salinity measurements					H90	Other measurements				
<b>HP PHYSICAL</b>											
H09	Classical oceanographic stations					<b>P - POLLUTION</b>					
H10	Vertical profiles (STD/CTD)					P01	Suspended solids				
H11	Sub-surface measurements underway					P02	Heavy metals				
H12	Mechanical bathythermograph (No. of drops)					P03	Petroleum residues				
H13	Bathythermograph-expendable (No. of drops)					P04	Chlorinated hydrocarbons				
H14	Sound velocity stations					P05	Other dissolved substances				
H15	Acoustic stations					P06	Thermal pollution				
H16	Transparency					P07	Waste water: BOD				
H17	Optics					P08	Waste water: Nitrates				
H18	Diffusion (Dynamic)					P09	Waste water: Microbiology				
H80	Other measurements					P10	Waste water: Other				
						P11	Discolored water				
						P12	Bottom deposits				
<b>HC CHEMICAL</b>						P13	Contaminated organisms				
H21	Oxygen					P90	Other measurements				
H22	Phosphates										
H23	Total-P										
H24	Nitrates										
H25	Nitrites										



## B - BIOLOGY

	NUMBER			FORMAT		NUMBER			FORMAT
B01 Primary productivity					B31 Vitamin concentrations				
B02 Phytoplankton pigments					B32 Amino acid concentration				
B03 Seston					B33 Hydrocarbon concentrations				
B04 Particulate organic carbon					B34 Lipid concentrations				
B05 Particulate organic nitrogen					B35 ATP-ADP-AMP concentrations				
B06 Dissolved organic matter					B36 DNA-RNA concentrations				
B07 Bacterial and pelagic micro-organisms					B37 Taggings				
B08 Phytoplankton					B80 Other measurements				
B09 Zooplankton									
B10 Neuston					<b>B5 TYPES OF STUDIES</b>				
B11 Nekton					B51 Identification				
B12 Invertebrate nekton					B52 Spatial and temporal distribution				
B13 Pelagic eggs and larvae					B53 Monitoring and surveillance				
B14 Pelagic fish					B54 Biomass determination				
B15 Amphibians					B55 Description of communities				
B16 Benthic bacteria and micro-organisms					B56 Food chains energy transfers				
B17 Phytobenthos					B57 Population and environments				
B18 Zoobenthos					B58 Population structures				
B19 Commercial demersal fish					B59 Taxonomy, systematics, classification				
B20 Commercial benthic molluscs					B60 Physiology				
B21 Commercial benthic crustacean					B61 Behaviour				
B22 Attached plants and algae					B62 Pathology, parasitology				
B23 Intertidal organisms					B63 Toxicology				
B24 Borers and foulers					B64 Gear research				
B25 Birds					B65 Exploratory fishing				
B26 Mammals and reptiles					B66 Commercial fishing				
B27 Deep scattering layers					B67 Aquaculture				
B28 Acoustical reflections on marine organisms					B90 Other measurements				
B29 Biologic sounds									
B30 Bioluminescence									

# INDEX

	<u>Page No.</u>
A00.....	1
A01.....	4
A02.....	5
A03.....	5
A04.....	6
A05.....	6
A06.....	8
A07.....	8
A08.....	9
A09.....	9
A10.....	10
A11.....	4
A12.....	5
A15.....	10
A17.....	9
A20.....	10
A25.....	11
A40.....	4
A62.....	7
A72.....	7
A81.....	7
A82.....	7
A91.....	6
A92.....	7
B.....	17
BS.....	17
Beginning Date.....	8
Biology.....	17
Chemical.....	16
Chief Scientist.....	6
Cooperative program?.....	7
Coordinated internationally?.....	7
Coordinator of international program.....	7
Country.....	5
Cruise Number or Name.....	4
D.....	15
Data Center.....	3
Declared national program?.....	6
Dynamics.....	15
Ending Date.....	9
Exchange restricted?.....	7
Expedition/Project.....	4
Federal Support.....	10
G.....	14
GL.....	14
GS.....	15
GU.....	14
General Ocean Areas.....	9
Geology/Geophysics.....	14
H.....	15
HB.....	16

INDEX (continued)

	<u>Page No.</u>
HC.....	16
HP.....	16
HS.....	15
Hydrography.....	15
Latitude.....	10
Longitude.....	10
M.....	15
Measurements Made at a Specific Location.....	14
Measurements Underway.....	14
Meteorology.....	15
Name and Addresses of Organizations and Persons.....	8
Name of cooperative program.....	7
Near Sea Floor ( <u>10</u> meters).....	16
Organization.....	6
P.....	16
Physical.....	16
Platform Type.....	5
Pollution.....	16
Reference Number.....	4
Remarks.....	11
Ship or Platform.....	5
Surface.....	15
Type of Marine Zone.....	9
Types of Studies.....	15, 17



### The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



### The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.