

**GSC OPEN FILE REPORT**

**ATLANTIC GEOSCIENCE CENTRE**

**A 35mm MICROFILM COMPILATION OF COLLECTED ANALOG**

**GEOPHYSICAL DATA FOR AGC CRUISE NO. 82018**

**Northwest Atlantic: East Bermuda Rise  
and Southern/Northern Nares Abyssal Plain**

**GSC Project 303067**

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## ABSTRACT

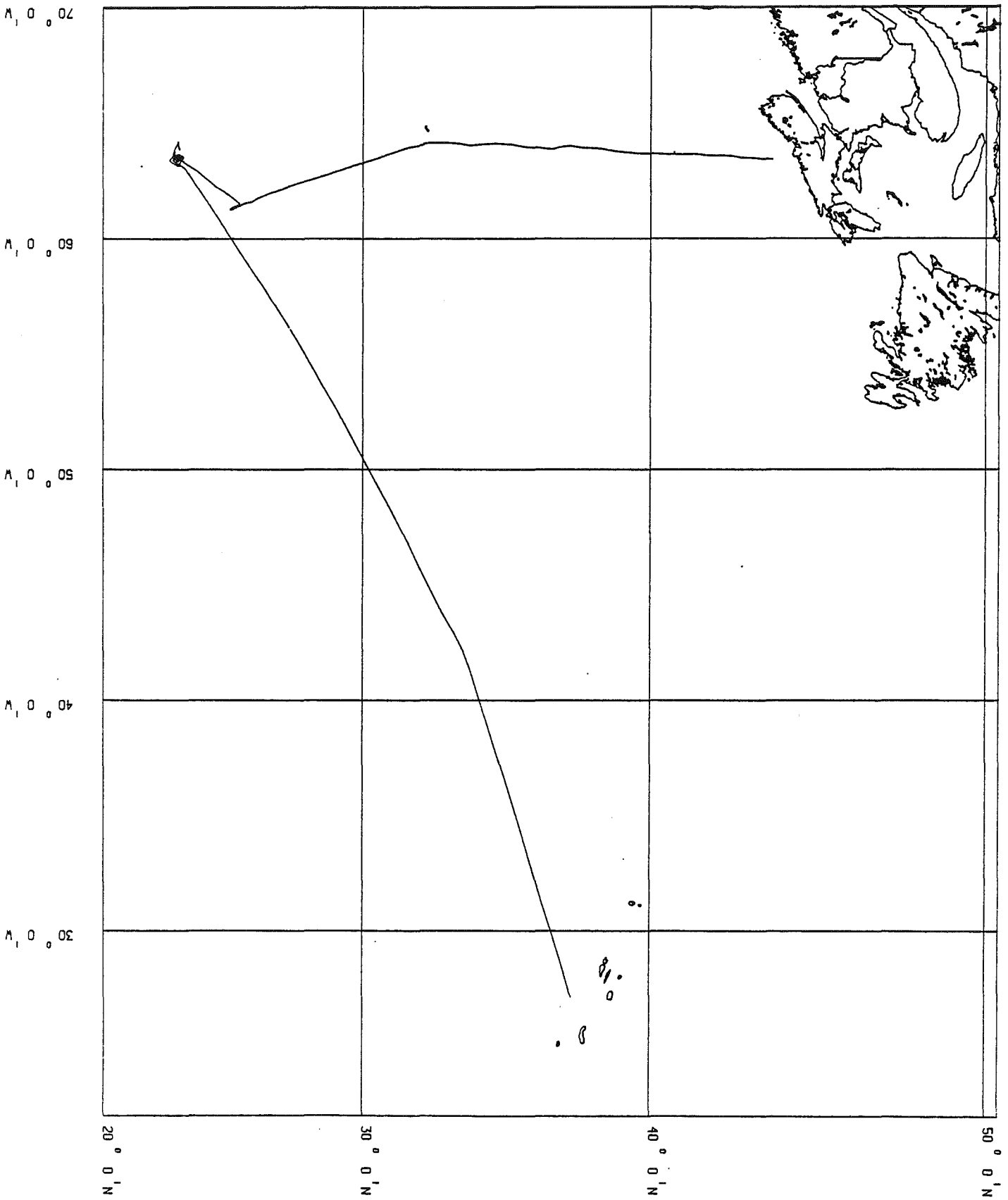
The Atlantic Geoscience Centre (AGC) at the Bedford Institute of Oceanography (BIO) has investigated several methods of releasing to the public sector its massive collection (of over 150,000 lineal metres) of underway geophysical records collected since 1963. The investigations and testing conducted by the Program Support Group, AGC in collaboration with the Public Archives of Canada indicated that the most cost-effective technique for distribution and for archiving such large volumes of irreplaceable data was to use microfilm. To maintain the continuous nature of these records, which can be up to 30 metres in length, special equipment was required such as the Tameran 6000 continuous flow microfilm camera, manufactured by Tameran Ltd. of Chagrin Falls, Ohio. All conversion of AGC's geophysical records using this camera was let to Manas Media Ltd. of Ottawa, in consortium with Precision Microfilming Services of Halifax and Archimed Ltd. of Montreal. Operational filming began at the end of March 1987.

This is the first in a series of AGC cruise data will be released in 35 mm microfilm and distributed as Geological Survey of Canada Open File reports during 1988. Master microfilm is curated for each AGC cruise at the National Archives, Dartmouth, Nova Scotia with duplicates available for viewing at the Data Management Section (Program Support Subdivision), Atlantic Geoscience Centre and at the Geological Survey of Canada libraries in Ottawa, Calgary and Vancouver.

## INTRODUCTION

Data Section is a part of the Program Support Subdivision (PSS) of the Atlantic Geoscience Centre. This group provides the safe archiving and cataloguing of the Atlantic Geoscience Centre's Data Collections and Holdings. This report provides an index to all geophysical records (3.5/12 kHz bathymetry, sparker, airgun seismic) collected during cruise 82018 (Figure 1).

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## DATA SOURCES

The information gathered together for this microfilming geophysical records project have been mainly derived from cruise reports, Department of Fisheries and Oceans cruise summary documentation, and external agencies. This information has then been checked and verified against record holdings including such information as collector and vessel, geographic area, Julian day together with start and end times of collection, line number, tape number and recorder type. The Record Inventory data base, utilizing micro-computer based dBase III plus software, contains all record/tape/log/navigation data for all analog tapes, catalogues/indices, and records obtained on more than 375 cruises obtained by or for the Atlantic Geoscience Centre since 1963. All microfilmed records have been routinely filmed according to the flow chart in Appendix I.

## CRUISE PARTICULARS

Cruise: CSS Hudson 82018

Senior Scientist: Dale Buckley - EMG, AGC

Dates: June 15 - July 5, 1982

Areas: Northwestern Atlantic

- a) East Bermuda Rise
- b) Northern Nares Abyssal Plain
- c) Southern Nares Abyssal Plain
- d) Transect - Nares Abyssal Plain to Azores

Scientific Staff: Dale Buckley Atlantic Geoscience Centre, Senior Scientist

Ray Cranston Atlantic Geoscience Centre, Second Senior Scientist

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Bhan Deonarine	Atlantic Geoscience Centre, Stratigraphy
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Rod Davies	University of Rhode Island, U.S.A., Geophysics
Mike Gorveatt	Atlantic Geoscience Centre, Marine Geology
Jes Nielsen	Atlantic Geoscience Centre, Geophysics
Don Locke	Atlantic Geoscience Centre, Geophysics
Jean Andrews	Lamont-Doherty Geological Observatory, Geophysics
Darrell Beaver	Atlantic Geoscience Centre, Data, Navigation
Tony Atkinson	Atlantic Geoscience Centre, Electronics
Don Peer	Marine Ecology Laboratory, Biology
Peter Schwinghamer	Marine Ecology Laboratory, Biology
Hans Wiele	Atlantic Oceanographic Laboratory, Photography
Francine Leflamme	Atlantic Geoscience Centre, Navigation
Art Cosgrove	Atlantic Oceanographic Laboratory, Geochemistry
Mark Chin Yee	Atlantic Oceanographic Laboratory, Engineering
Hart Stoll	Atlantic Oceanographic Laboratory, Electronics

### CRUISE OBJECTIVES

The main objectives of this cruise were devoted to the study of deep sea sediments as a possible medium for the disposal of high-level nuclear waste materials. Bathymetric and geophysical surveys

were conducted over an area of the Northern Nares Abyssal Plain and the Southern Nares Abyssal Plain to determine the extent of flat lying sediments in these areas and to determine the thickness and acoustic stratigraphy of these sediments.

#### REFERENCE

Report of Cruise No. 82-018, C.S.S. Hudson, 15 June-5 July, 1982 edited by D.E. Buckley and R.E. Cranston, Environmental Marine Geology, Atlantic Geoscience Centre, Bedford Institute of Oceanography, 37 p; Geological Survey of Canada; Internal Report PSS-AGC (1982).

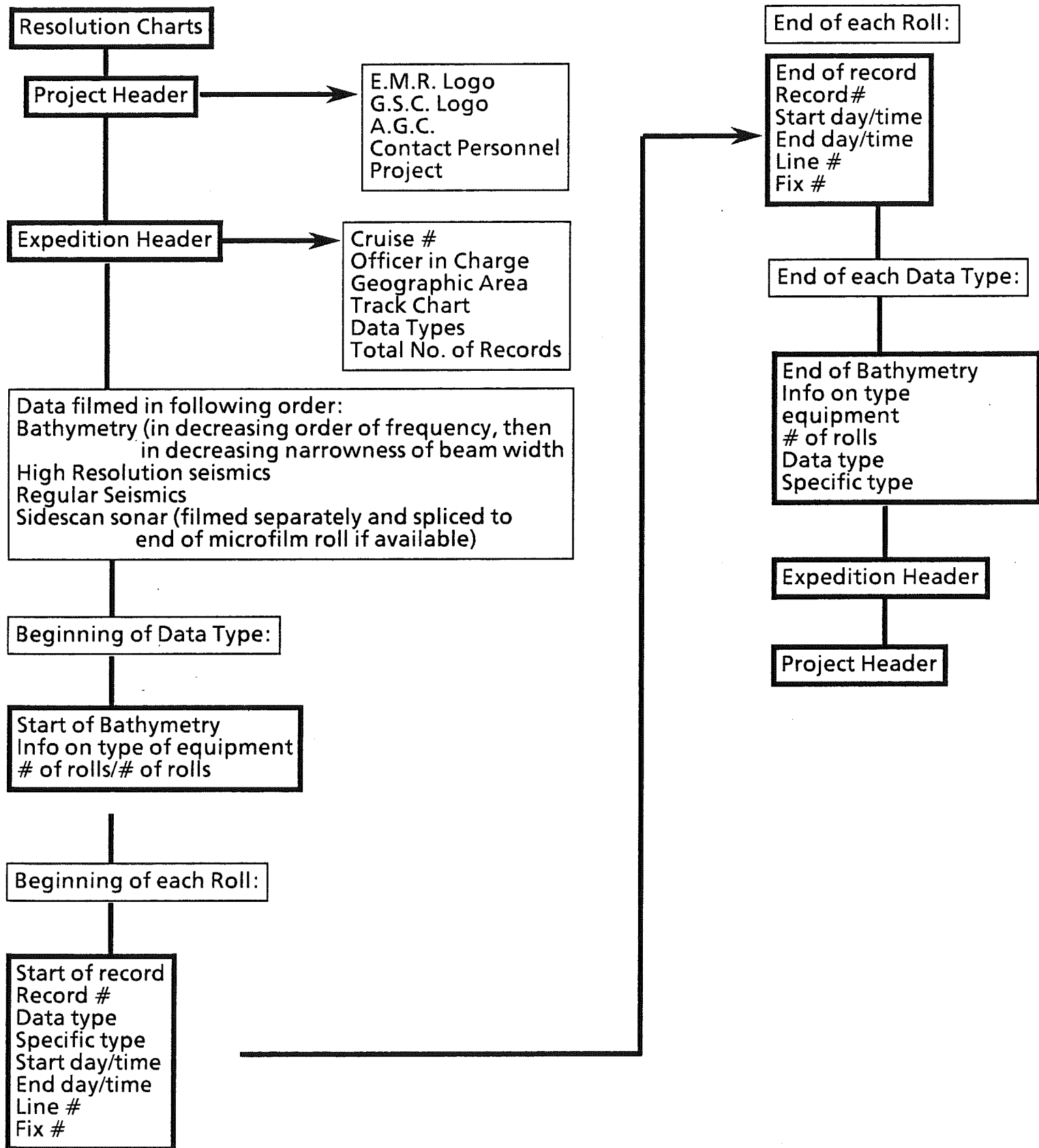
#### RECORD INVENTORY

Appendix II tabulates all analog geophysical records acquired during this cruise. They are listed in the same sequence as they appear on the microfilm. Corresponding footages are also given in centimetres per tape. Note that no sidescan sonar shallow were acquired.

#### MICROFILM REQUESTS

Requests for access to original records should be directed to the Director, Atlantic Geoscience Centre, Bedford Institute of Oceanography, P.O. Box 1006, Dartmouth, Nova Scotia, Canada, B2Y 4A2. Microfilm duplication requests can be directed to the Data Management (PSS), Atlantic Geoscience Centre, at the above address or phone (902) 426-3410.

# APPENDIX I FLOW CHART



## APPENDIX II

### HUDSON 82018

#### BATHYMETRY

12 kHz Hull Mounted Raytheon Depth Sounder with LSR recorder  
3.5 kHz (O.R.E., 10 KW, Model 140) Profiler with Raytheon LSR recorder

#### SEISMICS

Mini-Sparker with Model 4100 EPC Recorder  
40 cu. in. Bolt airgun, model 600, with SE (Seismic Engineering) Array with an HP 3960 4 channel tape recorder



## APPENDIX II (Continued)

82018

DATA TYPE	INSTRUMENT TYPE	ROLL NUMBER	START		STOP		MICROFILM FOOTAGE INDEX
			DAY	TIME	DAY	TIME	
Bathymetry 12 kHz		001	155	0920	168	2300	169
		002	169	1215	170	0330	024
		003	170	0340	172	1000	027
		004	178	0725	185	2200	041
		03A	173	0340	177	1000	052
Bathymetry 3.5kHz		001	170	2310	171	1040	076
		002	173	0348	173	1120	081
		003	174	0420	174	1030	084
		004	176	0320	176	0800	087
		005	176	1230	177	0810	088
		006	178	0740	179	0640	093
Seismic Airgun	100 Ft. Eel	001	170	1936	171	1110	098
	25 Ft. Eel	001	170	1936	171	1110	105
	100 Ft. Eel	002	173	0350	173	1100	110
	25 Ft. Eel	002	173	0300	174	1030	117
	100 Ft. Eel	003	174	0340	174	1030	120
	25 Ft. Eel	003	176	0320	176	0800	124
	100 Ft. Eel	004	176	0320	176	0800	125
	25 Ft. Eel	004	176	2120	177	0810	127
	100 Ft. Eel	005	176	1225	177	0810	131
	25 Ft. Eel	005	178	0740	179	0640	136
	100 Ft. Eel	006	178	0734	179	0640	139
Seismic Sparker		001	170	2105	171	1110	142
		002	171	0445	171	0640	146
		003	173	0400	173	1145	148
		004	174	0358	174	0738	151
		005	176	0320	176	0720	154
		006	176	1225	176	0440	156
		007	176	1230	177	0800	157
		008	178	0740	179	0640	160