

Send copies to Mike Latremouille, Don Gordon,
- Dave McKeown - list of equipments (Dave will get text.)
- Biennial reports - BIO - see 1965 (on-line PDF) - BIO website

SACKVILLE OCEANOGRAPHIC HISTORY WEB SITE ADDITION

Timing

The Sackville carried out oceanographic research with various users from 1951 until 1982 with DREA sole user from 1975 until 1982 decommissioning.

1951 until 1953 as HMCS Sackville, # 532, with military crew doing cruises for AOG, AOG cruises started then with cruises numbered starting with S-1 to S-13. DREA had own numbering system and was not included in the S- numbered cruises. See "HMCS SACKVILLE 1941-1985" by Marc Milner for some details on naval research.

August 1953 Ship converted to CNAV Sackville # 113, with civilian crew

AOG (Atlantic Oceanographic Group), BIO, DREA, GSC Ottawa, Dominion Observatory Ottawa, Dalhousie and other Universities and Nova Scotia Research Foundation. Were users

Cruises' continued with S- numbering until end of 1964 at S-81 primarily with physical and biological type research coordinated by AOG.

1965 Cruise numbering begin using BIO type cruise numbering with cruise 65-004 and ended with last cruise in 1975 cruise 75-002.

Scientific facilities and space improvements

Early cruises had basically a military corvette with guns removed, Bottle casts and BT work done from winch on starboard waist with occasional use of steam towing winch on stern for deep casts.

Space where one boiler was removed in 1940's was used for a laboratory for the period 1951 until decommissioning in 1982

Sometime in the late 1950's (exactly when not determined yet), but probably 1959 or 60, a combined oceanographic laboratory space and winch room was added at the end of the engineroom casing.

In 1964 a flume stabilizing system and a bow thruster were added to improve station keeping ability but a few years were removed as not found to be particularly useful.

In 1968 the old naval open bridge was replaced with a two deck fully enclosed bridge plus improved and additional cabin space for scientific staff by enclosing the main deck on each side between the break in the foc'sle and the new laboratory and winch room aft and the bow area gunnels were raised to provide better working conditions on the fore deck. Many other small improvements were made to improve living conditions and scientific capability at various times.

Type of research carried out

The Sackville during its career carried a varied range of oceanographic research. This included physical oceanography, biological research, chemical oceanography,

military defense research, marine geological research, marine geophysical research and marine biological research. Basically the entire main fields of oceanographic research.

1) The physical oceanography consisted in the early days of mainly bottle casts and bathythermograph (BT) casts to determine the ocean water characteristics.

2) The biological research consisted in plankton tows and bottom sampling and maybe small net towing.

3) The chemical oceanography research collected both bottom grab and core samples as well as water samples to determine the chemical characteristics in the marine areas.

4) The military research likely was predominately dealing with physical oceanography and ocean acoustics as that was what the anti submarine research required.

5) The marine geological research consisted of collecting bottom grabs, dredge and core samples used to map the bottom type and characteristics along with the water depth. And was often supported continuous seismic refraction profiling.

6) The marine geophysical research carried out on the Sackville was often used to carry and detonate large explosive charges required for determining the deep crustal structure of the water covered areas in the Maritime areas of Scotia shelf, Gulf of St. Lawrence, and Labrador Shelf. Also bottom gravimeter surveys were carried out of the Gulf of St. Lawrence and Scotia shelf. Proton magnetometer surveys were also often carried out along with seismic refraction profiling using various sound sources such as sparkers, boomers, and small airguns.

7) The biological research consisted of plankton tows and maybe small nets towed to collect water born biological samples. Also bottom grab samples were collected to collect organisms in the sediments.

In all the above type of research it was the norm to have more than one type of research being carried out on one cruise. Occasionally there were single type research cruises particularly in the military cruises.

Other comments-ideas

I think it would be nice to pick out one particular cruise maybe in each of the above fields that were carried out on the Sackville that one would think special. An example of this would be the joint Sackville and Vema cruises carried out in 1960 that did the first deep refraction seismic work on Canada's east coast shelves that led to the oil industry interest and exploration in these areas in the 1960's and beyond. I am open to other suggestions and need input from all on this.

There is roughly a 2000 word limit on the main addition that was suggested by the Sackville curator. I have asked him if we could have attachments such as the list of research cruises carried out (see attached preliminary) maybe some pictures or also remembrances by old staff of particular cruises etc. I have no answer to that yet.

Bill Moore has offered and is proceeding in making a model of the CNAV Sackville in it's last oceanographic shape at a scale of 1 to 72 which would put in a display next to the same scale model of Sackville in its military WW2 form.

There will also be a glass enclosed display case we can use to put displays of oceanographic equipment and instruments or other items relating to the oceanographic history of the Sackville. This does not have to be a permanent display but could periodically change on a yearly basis. I thought one on physical oceanography would be a good one. Maybe with a Nansen bottle and reversing thermometers and a BT. I will find

out how much space will be available soon as the Sackville people are having a large new display case made this Spring to be ready for the summer move to the Maritime museum pier.

Any other thoughts and comments are welcome as it is in the early stages yet. Sackville people hope to have their new web site up in a few weeks and I should have more information available from John Hault, the Sackville curator. Don Peer is also working with me on this

Keith Manchester
Jan. 30, 2009

CNAV Sackville Cruises

Cruise no.	Date start	Day finish	Area
1951 50 days at sea			
S-1	Sep 1	Sep 2	Gulf of St Lawrence
S-2	Sep 9	Sep 21	Scotian Shelf & Gulf of St Lawrence
S-3	Nov 6	Dec 12	Gulf of St Lawrence
1952 124 days at sea			
S-4	Jan 16	??	Scotian Shelf & Cabot Strait
S-5	April 21	April 22	Passamaquoddy Bay
S-6	April 23	April 25	Passamaquoddy Bay
S-7	April 29	May 29	Scotian Shelf & Gulf of St Lawrence
S-8	June 22	July 4	Scotian Shelf & Slope
S-9	July 22	July 28	Northumberland & Canso Straits
S-10	Aug 14	Sep 9	Scotian shelf & Gulf of St Lawrence
S-11	Oct 2	Oct 3	Passamaquoddy Bay
S-12	Oct-6	Nov 21	Scotian Shelf & Gulf of St Lawrence
1953 90 days at sea			
S-13	Mar 29	April 3	Bay of Fundy
S-14	Aug 20	Aug 29	Laurentian Fan
S-15	Sep 21	Oct 17	Scotian Shelf & Gulf of St Lawrence
S-16	Oct 29	Nov 16	Scotian Shelf & Gulf of St Lawrence
1954 135 days at sea			
S-17	Feb 19	Mar 8	Scotian Shelf & Bay of Fundy
S-18	Mar 28	April 9	West Scotian Shelf (BT Cruise)
S-19	April 25	May 20	Scotian Shelf & Gulf of St Lawrence
S-20	May 20	June 3	Western Shelf (BT Cruise)
S-21	June 26	July 8	Laurentian Fan
S-22	July 20	July 25	Western Shelf (BT Cruise)
S-23	Aug 18	Aug 29	Scotian Shelf & Gulf of St Lawrence
S-24	Sep 14	Sep 19	Western Shelf (BT Cruise)
S-25	Oct 8	Nov 2	Scotian Shelf & Gulf of St Lawrence
1955 80 days at sea			
S-26	June 12	July 13	Scotian Shelf & Gulf of St Lawrence
S-27	Aug 5	Sep 4	Scotian Shelf & Gulf of St Lawrence
S-28	Sep 18	Nov 18	Labrador Sea
S-29	Nov 16	Dec 5	Scotian Shelf & Gulf of St Lawrence
1956 68 days at sea			
S-30	Feb 8	Feb 17	Scotian Shelf & Labrador Sea

S-31	May 20	May 26	St Lawrence River & Gulf
S33	Aug 7	Aug 23	Halifax Section & Gulf of St Lawrence
S-34	Sep 15	Sep 30	Laurentian Fan & Trinity Bay
S-35	Oct 31	Nov 21	Scotian Shelf & Gulf of St Lawrence
1957 12 days at sea			
S-36	June 14	June 26	Halifax Section & Gulf of St Lawrence
1958 110 days at sea			
S-37	Feb 6	Feb 27	Bay of Fundy
S-38	Mar 10	April 6	Cabot Strait & Grand Banks
S-39 ??			
S-40	July 22	Sep 6	Scotian Shelf & Labrador Sea
S-41	Oct 18	Nov 3	Halifax Sect., Cabot Strait & Grand Banks
1959 89 days at sea			
S-42	Feb 17	Mar 30	Halifax Section & Grand Banks
S-43	May 29	June 18	Halifax Section & Grand Banks
S-44	July 1	July 6	Magdalen Shallows & Bay of Chaleur
S-45	Sep 23	Oct 9	Halifax Section & Magdalen Shallows
S-46	???		
S-47	Nov 4	Nov 11	Bay of Fundy & Browns Bank
1960 51 days at sea			
S-48	April 23	May 4	Halifax Section & Gulf of St Lawrence
S-49 ????			
S-50	July 7	July 15	Browns Bank
S-51	July 18	July 25	Bay of Fundy
S-52	Aug 8	Sep 12	Siesmic work with "Vema"
S-53	Nov 17	Nov 18	Halifax Section
S-54 ???			
1961 95 days at sea			
S-55	Feb 27	Mar 4	Halifax Section (BT Cruise)
S-56	July 10	July 30	St Lawrence River, Gulf & Saguenay R.
S-57	Aug 4	Aug 14	Three stations off Halifax
S-58	Aug 21	Sep 17	Gulf, Cabot Strait & N.E, coast of Nfl.
S-59	Oct 10	Oct 31	Halifax Section
S-60	Nov 10	Nov 21	Magdalen Shallows
1962 138 days at sea			
S-61	Mar 5	Mar 21	Scotian Shelf
S-63	30 days in June		Laurentian Channel

Cruise no.	Dates		Chief Scientist
S-64	July 23	Aug 10	C>R> Mann
S-65	Aug 17	Sep 30	M.J Keen
S-66	Oct 15	Nov. 2	A. A Mills
S-67	Nov 20	Dec 2	D L Peer
1963 96 days at sea			
63-117	Jan 15	Jan 19	W. Bailey
S-69	Feb 11	Feb 20	L M. Lauzier
S-70	Mar 4	Mar 29	M.J. Keen
S-71	April 29		G. Taylor
S-72	May 21	June 17	D.L.Peer
S-73	June 25	July 8	R.W.Trites
S-74	July 12	July 30	M. J. Keen
1965 139 days at sea			
65-004	Feb 22	Feb 25	G. Taylor
65-005	Mar 8	Mar 25	D. Stanley (Dal)
65-009	April 13	April 18	J. Butter s?
65011	May 4	May 13	D. Stanley & D. J. Swift
65-016	May 31	June 27	M. J. Keen
65-019	July 12	Aug 27	B. Blackford & D. Loring
65-027	Aug 14?????		D.Loring
65-023	Oct 11-	Oct 31	C Hobson
65-036	Nov 17	Nov 28	T R Foote
1966 94 days at sea			
66-003	Mar 15	Mar 30	D Swift (Dal)
66-009	May 15	May 27	D Loring
66-020	Aug 1	Aug 12	W Bailey
66-023	Aug 16	Aug 28	T R Foote
66-025	Aug 31	Sep 11	Bailey
66-028	Oct 17	Nov 6	G Hobson
66-029	Nov 15	Nov 27	G Taylor
1967 134 days at sea			
67-006	Mar 6	Mar 10	Riley
67-015	Apr 12	April 14	G Taylor
67-016	May 2-	May 19	Conover
67-017	May 30	June 30	Goodaern??
67-025	July 31	Sep 4	Warner
67-029	Sep 7	Sep 15	J Budlong
67-031	Oct 2	Oct 27	Hobson
67-36	Nov 16	Nov 27	T Foote

1968 58 days at sea

68-042	Aug 5	Aug 19	Riley
68-046	Aug 26	Aug 30	R Conover
68-047	Sep 5	Sep 21	G Taylor
68-053	Oct 7	Oct 31	Hobson

1969 131 days at sea

69-003	Jan 6	Feb 15	Beckett
69-012	Mar 3	Mar 9	F Payne
69-014	Mar 24	Apr 1	R Conover
69-023	Apr 25	May 22	Beckett (FRB)
69-029	June 2	June 13	Krank
69-032	June 18	June 31	R Conover
69-041	July 14	Aug 9	A C Grant

1970 138 days at sea

70-004	Feb 10	Mar 17	Beckett
70-012	Apr 6	Apr 21	McGill University
70-014	Apr 27	May 8	Prichard
70-017	May 12	May 14	Ewing
70-024	June 8	July 3	Dominion Observatory
70-026	July 13	July 31	Hassan
70-029	Aug 3	Aug 14	R Cooper
70-032	Sep 10	Oct 1	Cooper

1971 117 days at sea

71-001	Jan 15	Jan 23	F Jordan
71-006	Feb 11	Feb 17	C Mason
71-007	Mar 8	Mar 19	D Stevens
71-013	Mar 29	Apr 7	Bidgood
71-018	May 3	May 28	Cooper
71-023	June 3		IODAL
71-027	July 12	Aug 8	A Walton
71-033	Sep 8	Sep 20	Gravity div. Ottawa
71-035	Oct 12	Oct 21	D Gordon (Halifax-Bermuda)
71-038	Nov 18	Nov 28	T Foote

1972 125 days at sea

72-007	Mar 7	Mar 13	J. Dessureault
72-010	April 24	May 5	Bidgood
72-018	June 5	July 7	T Platt
72-023	Aug 10	Sep 27	L Stephens
72-033	Oct 17	Nov 3	McGill U
72-035	Nov 17	Nov 26	T Foote
72-041	Dec 11	Dec 19	R Eaton

		1973	147 days at sea
73-003	Feb 2	Feb 3	K Manchester
73-009	Apr 9	Apr 19	Bidgood
73-010	Apr 24	May 6	M Eaton
73-016	May 10	June 13	Sameoto
73-026	Aug 14	Sep 11	K Manchester
73-028	Sep 18	Oct 2	Jareszynski
73-029	Oct 10	Oct 19	L King
73-032	Oct 22	Oct 30	Haworth
73-035	Nov 15	Nov 26	G Taylor
73-037	Dec 3	Dec 13	Jareszynski

		1974	128 days at sea
74-007	April 1	April 11	Bidgood
74-008	April 17	April 24	K Denman
74-011	April 30	May 2	F Jordan
74-014	May 5	May 20	Sameoto
74-019	June 5	June 22	Bartlett & Keen
74-024	June 24	June 28	A Herman
74-027	July 21	July 31	P Thorburn
74-029	Aug 7	Aug 18	Durvasula
74-030	Sep 7	Sep 27	Legnedre
74-034	Oct 15	Oct 28	Monogham
74-037	Nov 14	Dec 2	Foote

		1975	3 days at sea
75-002	Jan 20	Jan 23	S P McPhee