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DE LA VÉRIFICATION  
ET DE L'ÉVALUATION

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EVALUATION OF PROGRAM INTEGRITY 1  
SAR COMPONENT  
2004-60251  
FINAL REPORT  
SEPTEMBER 30, 2005



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

Canada

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## I. EXECUTIVE SUMMARY

### INTRODUCTION

In August of 1999, Fisheries and Oceans Canada (DFO) submitted, under Program Integrity, a report to the Treasury Board Secretariat (TBS) regarding issues related to Marine Search and Rescue (SAR).

### BACKGROUND

*Results for Canadians- A Management Framework for the Government of Canada* states that ensuring the integrity of programs that are critical to the health, safety and well-being of Canadians, is of critical importance. Program Integrity I was a government wide initiative to provide funding to programs to restore their ability to provide critical programs. Program Integrity I funding was required to restore confidence and credibility in the Department's overall ability to provide core services to Canadians.

Program Integrity I is a horizontal funding initiative that arose from the need to rebuild critical programs that had been affected by Program Review decisions in 1994. In 2000, over \$100 million per year was notionally allocated to Fisheries and Oceans Canada (DFO) for a five year period to address Program Integrity issues. Funding for the initiative ended in 2004/05.

Although SAR services were excluded from Program Review cuts in 1994, reductions to other programs resulted in a reduced fleet of DFO vessels, which impacted SAR's ability to maintain previous levels of coverage. Technological changes at rescue centres placed greater demand on resources and increased responsibilities for staff.

Program Integrity SAR was meant to address two key concerns – response capability through adequate coverage, and increased workloads at rescue centres. The enhancement of the response capability to inshore SAR incidents was to be achieved through the building of eight lifeboats, and eight new land-based SAR stations in four regions that would partially substitute for larger, more expensive patrol mode vessels.

[ Section severed pursuant to s.69 (g) re (c) of the ATIP ]

### OBJECTIVE AND SCOPE

The evaluation objectives were to:

1. *Examine the relevance of the Program.* The evaluation assessed the extent to which the program addressed the priorities of DFO, its clients, and the federal government.
2. *Determine the degree of success of the Program in meeting its immediate objectives.* The evaluation assessed how successful the program has been in achieving the outcomes set forth at program inception. These outcomes include:
  - Improved search and rescue capability;

- Improved ability to accommodate increased workloads at rescue centres; and
- Reduced risk of loss of lives.

The scope of this evaluation covered the period from 2000-01 to 2004-05.

## OVERALL CONCLUSIONS

- [ Section severed pursuant to s.69 (g) re (c) of the ATIP ]
- Since the Stations and Lifeboats have not been in place for an extended period of time, its full impact is yet to be determined.

### *Relevance*

- From its position within DFO, the CCG plays a key role in the national marine transportation system by contributing to maintaining maritime safety, facilitating marine trade and commerce and protecting the marine and freshwater environment.
- The Program Integrity I funding for SAR has improved response capability to inshore SAR incidents, through the addition of eight new land based Stations and Lifeboats, facilitated the offshore utilization of large patrol vessels and has increased staff at the JRCC/MRSCs. These initiatives undertaken under Program Integrity I have contributed to achieving DFO's strategic objective of "Safe and Accessible Waterways" and fulfilling CCG's role in marine safety.

### *Success*

- DFO has successfully completed the initiatives under Program Integrity I, somewhat later than the original time line, and has met the goals and objectives of the program.
- Program Integrity I is now complete with the purchase of all eight SAR stations and eight lifeboat vessels delivered and in operation. Crewmembers were hired and trained as new stations and vessels became operational.
- The recruitment and training of 18 new rescue coordination staff, to deal with increasing workloads, in the Joint Rescue Coordination Centres (JRCC)/Maritime Rescue Sub-Centre (MRSC) is complete. Rescue coordination staff were placed in higher risk areas and all coordination centres are manned 24 hours a day, 365 days a year.

## **1.0 INTRODUCTION**

### **1.1 BACKGROUND**

*Results for Canadians- A Management Framework for the Government of Canada* states that ensuring the integrity of programs that are critical to the health, safety and well-being of Canadians, is of critical importance. Program Integrity I was a government wide initiative to provide funding to programs to restore their ability to provide critical programs.

When Program Review decisions were made in 1994, SAR services were specifically excluded from reductions. However, Program Review reductions in other programs resulted in a considerably reduced fleet of DFO vessels, and this impacted negatively on SAR's ability to maintain previous levels of coverage. Thus the SAR Program's viability was impaired through the cumulative and unintended impacts of Program Review reductions.

In addition, technological changes through maritime telecommunications and computerized search planning and search technique improvements have affected the work environment of the personnel in the Joint Rescue Coordination Centres. New tools have increased SAR effectiveness in adverse conditions, but place greater demand on the resources of the centres, with increased responsibilities for staff, and large increases in the volume and speed of information flows.

#### **[ Section severed pursuant to s.69 (g) re (c) of the ATIP ]**

The Program Integrity I proposal for SAR was meant to address these two key concerns: response capability through adequate coverage and increased workload through new positions at the rescue centres as described below:

- to reinstate SAR coverage in Canada's SAR areas of responsibilities that require primary SAR resources through establishing eight (8) new lifeboats and stations and provide supplementary funding for a minimum number of patrol vessels; and
- to provide additional maritime SAR personnel at four (4) rescue centres to address increased workload.

SAR was to hire, train, and relocate 64 FTEs for eight new lifeboats and stations, and was to hire and train 12 new Maritime SAR Co-ordinators and six new Maritime SAR Support Officers. Furthermore, SAR transition funding covered the costs associated with patrol vessels to address SAR coverage until the new lifeboats and stations were ready.

#### **Funding:**

The financial resources allocated to Program Integrity are presented in the table below. The program's funding is scheduled to end in 2005/06.

**Exhibit 1.2 Financial Resources Budgeted by Component and Year (\$000)**

<b>Component / Sub-Component</b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>Ongoing</b>
<b>SAR</b>	\$41,300.0	\$40,600.0	\$33,600.0	\$20,500.0
➤ Lifeboats and Stations	\$17,000.0	\$14,400.0	\$8,100.0	\$5,800.0
➤ Joint Maritime and Aeronautical Rescue Centres / Maritime Rescue Centres Co-ordinators and Support Officers	\$1,200.0	\$1,200.0	\$1,200.0	\$1,200.0
➤ SAR Patrol Vessels	\$9,500.0	\$13,500.0	\$13,500.0	\$13,500.0
➤ Transition Funding	\$13,600.0	\$11,500.0	\$10,800.0	\$0.0

Transition funding of \$35.9 M was provided for the three year period 2000-01 to 2002-03 to support SAR coverage until the new lifeboats and stations became fully functional. The purpose of the transition funding was to support vessels and crews so that SAR activities could be sustained during the implementation of the life stations and boats.

**1.2 OBJECTIVES AND SCOPE**

**Objectives**

The evaluation objectives were to:

1. *Examine the relevance of the Program.* The evaluation assessed the extent to which the program addressed the priorities of DFO, its clients, and the federal government.
2. *Determine the degree of success of the Program in meeting its immediate objectives.* The evaluation assessed how successful the program has been in achieving the outcomes set forth at program inception. These outcomes include:
  - Improved search and rescue capability;
  - Improved ability to accommodate increased workloads at rescue centres; and
  - Reduced risk of loss of lives.

**Scope**

The scope of this evaluation covered the period from 2000-01 to 2004-05.

**Evaluation Issues**

The evaluation issues identified in the RMAF were used as the basis for evaluating the Program’s relevance and success. The issues that were examined are:

**Relevance**

- Did the activities undertaken by Program Integrity I address the priorities of DFO?

### **Success/Progress**

- To what extent have Program Integrity funds contributed to improved capacity and the ability to address increasing and changing demands within the targeted areas?
- How effective was the performance measurement and reporting system used for the components funded through Program Integrity I?
- Was performance information available in a timely fashion to effectively measure, manage, and report on the success of program initiatives?

To what extent has the program:

- reduced the risk of loss of life and property?
- ensured maximum SAR coverage through optimal site selection? Through SAR patrol vessels?
- improved response capability to inshore SAR incidents?
- improved the ability of rescue centre staff to deal with workload demands?

### **1.3 METHODOLOGY**

The evaluation consisted of three phases: planning, conducting and reporting. The methodology for the evaluation was developed during the planning phase of the project.

A Departmental Advisory Committee for the evaluation was established to provide advice on: the Terms of Reference; the methodology to be used; contacts selected for key informant interviews and other lines of inquiry; and the factual validation of draft advisory reports. The Advisory Committee included representatives from Science, Fisheries and Aquaculture Management, Canadian Coast Guard, Human Resources and Corporate Services and the Departmental Legal Services Unit.

The approach used for this evaluation was designed to address the evaluation objectives and issues. The Audit and Evaluation Directorate (AED) used the following methodologies to conduct this evaluation:

- Document/Database and file review for the SAR component;
- Key informant interviews with:
  - DFO headquarters; and
  - regional staff in the Maritimes, Newfoundland and Labrador, Quebec, Central and Arctic and Pacific Regions.

#### ***Document /Database and File Review***

A review of all documents and files relevant to the Program Integrity was completed. These documents have provided the evaluation team with quantitative and qualitative data on the objectives, activities, and results of the activities conducted under Program Integrity to date.

Key sources of information are listed below.

- Program Integrity I RMAF;
- Departmental Strategic Plan (2000);
- Annual departmental performance reports (DPR);
- Program Integrity interim (detailed) reports (2002);
- Financial and operational reports;
- SAR Needs Analysis 1999; and
- CCG Marine Programs National Performance Reports.



## **2.0 OBSERVATIONS AND RECOMMENDATIONS**

### **2.1 RELEVANCE**

From its position within DFO, the CCG plays a key role in the national marine transportation system by contributing to maintaining maritime safety, facilitating marine trade and commerce and protecting the marine and freshwater environment.

Water related activities in Canada have been increasing and demographic and economic trends indicate that recreational boating is continuing to grow. The trend towards smaller, more powerful water craft, and the simultaneous increase in the number of boaters on Canadian waters, has created a heightened awareness of boating safety concerns and has provided more challenging demands on the SAR program. Approximately 1 in 4 Canadians own a boat, and recreational boaters are involved in over 60% of maritime SAR incidents. In addition, the fishing industry on both coasts is comprised of approximately 50,000 licensed fishing vessels, and cruise line excursions along the East and West Coast and into the Arctic have increased significantly over the last few years.

Program Review reductions in 1994 impacted negatively on the CCG's ability to provide SAR coverage. Increased workload placed a greater demand on program resources, thus increasing the risk of loss of life and injury on Canada's waterways. Funding for the Program Integrity Initiative was provided in 2000/2001 to address the shortfall.

The Program Integrity I funding for SAR has improved response capability to inshore SAR incidents through the addition of eight new land based Stations and Lifeboats, facilitated the utilization of large patrol vessels and has increased staff at the JRCC/MRSCs. These initiatives undertaken under Program Integrity I have contributed to achieving DFO's strategic objective of "Safe and Accessible Waterways" and fulfilling CCG's role in marine safety.

### **2.2 SUCCESS**

#### ***Stations and Lifeboats***

DFO has completed the Program Integrity I activities, somewhat later than the original time line and has met its original goals and objectives of the program. As of May 2004, 8 new SAR Stations and Lifeboats have been operational. Crewmembers were hired and trained as new stations and vessels became operational. In addition, the recruitment of 18 new rescue coordination staff in the JRCC/MRSCs to deal with increasing workloads has been completed.

The SAR Program Integrity Initiative focused on improving response capability to inshore SAR incidents through the building of eight lifeboats, and eight new land-based SAR stations in four regions that would partially substitute for larger, more expensive patrol mode vessels.

The Canadian Coast Guard developed a comprehensive site selection process to determine the best possible harbours for the lifeboat stations in order to provide optimum SAR services in specified areas. (Central and Northern coast areas of British Columbia, the estuary and Gulf of St-Lawrence, the Bay of Fundy, Northumberland Strait, and the West Coast of Newfoundland).

Harbour natural characteristics and harbour infrastructures were some of the criteria considered under the site selection process. The most important step in this process comprised a scientific SAR coverage study to ensure that the location of the station would provide maximum safety to mariners. Feasibility and formal approval processes were dealt with under this process. Teams of experts with effective background experience from different sectors of DFO conducted the Site Selection Process.

**The following is the SAR Stations locations and in service dates.**

- February, 2003 - Rivière au Renard, Quebec
- June, 2003 - Havre Saint-Pierre, Quebec
- July, 2003 - Saint-John, N.B.
- July, 2003 - Summerside, PEI
- July, 2003 – Port au Choix, Nfld-Labrador
- August, 2004 – Lark Harbour, Nfld-Lab
- September, 2004 - Sandspit, BC
- September, 2004 - Bella Bella/Shearwater, BC

The implementation of new Program Integrity lifeboat stations has restored SAR coverage in the Central and Northern Coast areas of British Columbia, the estuary and Gulf of St. Lawrence, the Bay of Fundy, Northumberland Strait and the West Coast of Newfoundland.

These stations have allowed the Coast Guard to reduce the level of larger vessel coverage in those areas. These state of the art lifeboats, designed to respond safely under severe sea conditions, are equipped with state of the art electronic detecting, navigating, and communications equipment. Within their range, they can respond at greater speed than patrol vessels.

<u>Name of Vessel</u>	<u>Vessel Acceptance dates</u>	<u>Location</u>
CAPE FOX	MAY 1, 2003	Lark Harbour, Nfld-Lab
CAPE NORMAN	MAY 1, 2003	Port au Choix, Nfld-Lab
CAP DE RABAST	JULY 29, 2003	Havre St-Pierre, Quebec
CAP ROZIER	JULY 29, 2003	Rivière au Renard, Quebec
CAPE MUDGE	JULY 17, 2003	Sandspit, BC
CAPE FAREWELL	AUG 28, 2003	Bella Bella, BC
CAPE NORD	JUNE 15, 2004	Saint John, NB
CAPE SPRY	JUNE 15, 2004	Summerside, PEI

## **Contracting**

The original timeline for the delivery of the 8 new lifeboats by March 31, 2003 was considered ambitious as a stand-alone procurement activity. Delivery dates were tied to the contract's production schedule which extended beyond March 31, 2003.

Tendering delays and unforeseen contract delays impacted the delivery date of March 31, 2003 for the lifeboats. The formal site selection process for the lifeboat stations did not begin until [ **Section severed pursuant to s.69 (g) re (c) of the ATIP** ]. The delivery of the new stations according to the prescribed completion date of March 31, 2003 was found unrealistic. In an effort to meet stipulated completion dates each stage of project delivery was fast-tracked wherever possible.

In March of 2003, cost overrun in the amount of \$5.58 million (vote 5) for the SAR Program Integrity Lifeboats and Stations, attributable to a foreshortened pre-approval planning activity, was approved by the Minister of DFO. These funds were required to complete the construction of the remaining four Lifeboat Stations; Lark Harbour, Port au Choix, Sandspit, and Shearwater/Bella Bella.

### ***Increase of Staff at JRCC/MRSC***

“Mission Coordination” is a key element of SAR operations. It is the decision-making phase of operation that defines the SAR strategy, availability of resources, and the coordination of specific activities of SAR players and technical systems. “Mission Coordination” determines the best decision when faced with a SAR situation, for example: deciding whether to send a fast helicopter with a limited capacity of operation in harsh meteorological conditions, or a slower aircraft with efficient safety equipment; and determining whether to use a vessel of opportunity or task a CCG vessel. More staff is placed in higher risk areas, and all coordination centres are manned 24 hours a day, 365 days a year.

The recruitment and training of 18 new rescue coordination staff in the Joint Rescue Coordination Centre (JRCC)/Maritime Rescue Sub-Centre (MRSC) to deal with increasing workloads was completed. This has provided the centres with increased capacity to deal with SAR activities, provided back-up capabilities and coordination support.

All 18 identified positions funded by the SAR Program Integrity have been permanently staffed. These positions include 6 Maritime SAR Support Officers (GT-3) and 12 SAR Co-ordinators (GT-5) for 4 rescue centres. All 18 employees are trained and working in rescue centres as originally planned. All new employees have been introduced into the work schedule of 2 Maritime Rescue Sub-Centres and 2 Joint Rescue Co-ordination Centres. Training staff for rescue centres was essential to ensure a high quality of service on a consistent basis. After meeting basic qualifications a large portion of the training is conducted on the job.

The recruitment of the new staff at the JRCCs has impacted positively on existing staff who experienced an improvement in the quality of work life. It has provided more flexibility in their schedules of work, allowed for better planning, more support to the SAR unit and training. It has

decreased the stress level among employees who felt overworked. It has resulted in more efficiency and effectiveness in conducting analysis of incidents, problem resolution and resource tasking.

### **Transition Funding and SAR Patrol Vessels**

Transition funding of \$35.9 M was provided for the three year period 2000-01 to 2002-03 to support SAR coverage until the new lifeboats and stations became fully functional. The purpose of the transition funding was to support vessels and crews so that SAR activities could be sustained during the implementation of the life stations and boats. The transition funding was effective in maintaining and increasing coverage during the Program Integrity implementation period.

While lifeboats provide coastal coverage, large patrol vessels deliver long-range, heavy weather SAR response for both coastal and offshore areas. They provide the flexibility to be pre-positioned to areas or events that have a higher risk and are an important platform for on-scene co-ordination during major SAR operations.