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**CANADIAN COAST GUARD AUXILIARY  
EVALUATION**

**FINAL REPORT  
PROJECT NUMBER 60263  
MARCH 31, 2003**



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## I. EXECUTIVE SUMMARY

In March 2002, Treasury Board Ministers approved renewal of contribution payments to the Canadian Coast Guard Auxiliary (CCGA) for the period of April 1, 2002 to March 31, 2007 to support provision of voluntary Search and Rescue (SAR) services and the promotion of boating safety through accident prevention and education under the SAR program of the Canadian Coast Guard (CCG).

The allocation for this contribution program in existing departmental reference levels is currently \$4,500,000 annually. This allocation is to permit the CCGA Associations (that are legally incorporated volunteer not-for-profit organizations) to carry out authorized activities which are in direct support of the CCG's SAR Program mission: "To save and protect lives in the marine environment".

This evaluation was undertaken to measure the relevance, success and cost-effectiveness of the CCGA in meeting its objectives as defined in the Contribution Agreements. Although the Auxiliary has been the subject of a number of studies and reviews, no previous evaluations, as such, have been conducted. Hence, this evaluation is considered to be a mid-term evaluation. Furthermore, it will serve as the baseline data for a future summative evaluation, which will be undertaken prior to seeking renewal of the program in 2007.

The evaluation was based on a multiple lines of evidence approach, utilizing three main sources of data including: a literature review of previous reports, newspaper articles, studies and published papers; document reviews of various program files, business plans, DFO's Report on Plans and Priorities, the Departmental Performance Report, contracts, and contribution agreements; as well as a survey questionnaire, followed by key informant interviews.

The following conclusions and recommendations are presented for management consideration.

The evaluation concluded that:

- The CCGA program is highly relevant and has been, as well as continues to be, highly focused on the prevention of loss of life and/or injury at sea, and when directly related thereto, minimizing damage to or loss of property. Therefore, the CCGA's mandate and objectives continue to be closely linked to that of the CCG. Recognizing that SAR service is directly linked to coverage, credit is given to the CCGA for providing the necessary resources, knowledge, maritime experience, seafaring talents and professional conduct in discharging SAR responsibilities that are required to protect Canada's coastline.
- The CCGA under the direction of the CCG, continues to be highly successful in supporting SAR and boating safety activities. The auxiliarists are professionally trained individuals who demonstrate a tremendous dedication to their work and continue to provide positive impacts on maritime SAR operations. However, while this evaluation could not effectively show evidence as to the effect to which the CCGA has contributed to public compliance and awareness of maritime regulations, the evaluation findings reveal that there has been an impressive contribution.

- The CCGA continues to be a cost-effective organization which, as the volunteer-arm of the CCG, effectively complements the CCG's maritime safety mandate.

It is recommended that the CCG:

1. Increase its communications with CCGA National and the five CCGA Associations, both formally and informally, and increase its recognition of the CCGA volunteer efforts.
2. Ensure that the National Association and the CCGA Associations develop an internal communication strategy to facilitate the sharing of information, best practices and other related tools amongst regional auxiliaries.
3. Ensure that the CCGA members on authorized activities maintain an incident log book or record of their activities as well as compile a communications log. These records must be retained intact as they may be required for later investigation of the incident, for courts of inquiry, as well as for future audits and evaluations and reviews. If possible, the value of the property saved should also be captured after each successful tasking completed.
4. Ensure that the CCGA capture, in a more national and systematic manner, all data relating to cost-effectiveness.
5. Encourage the National Association to collate all regional data and information into one seamless database that could be readily accessible to both the CCG and the CCGA.

The CCG management supports the evaluation findings and recommendations. CCG recognizes that there are areas of the CCGA Program that require improvement, and has prepared a Management Action Plan, which address the evaluation recommendations.

## II. MANAGEMENT ACTION PLAN

The Canadian Coast Guard (CCG) recognizes the contribution of the Canadian Coast Guard Auxiliary (CCGA) to the entire National SAR Program. The CCG depends on the volunteer services of the CCGA to assist them in SAR operations, public education and boating safety activities. If the CCGA did not exist, the CCG would not be able to respond to the additional 20% to 25% of SAR incidents that the “Auxiliary” successfully prosecutes each year, without investing additional millions of dollars for the purchasing, crewing and outfitting of additional CCG vessels.

It is estimated the CCGA saves 200 lives each year.

The CCG notes that the six Canadian Coast Guard Auxiliaries are federally incorporated non-profit associations that assist the CCG to deliver some CCG programs. Each of these Auxiliary Associations is a legal entity separate from that of the Government of Canada and of the CCG. The CCGA has, therefore, an arm’s length relationship with the CCG, albeit a very good partnership arrangement. The Contribution Agreements are clearly entered into by two separate independent contracting parties and specifically exclude either an agency relationship or a master-servant relationship resulting from the agreement. The CCGA, as an incorporated association, is able to decide what is best for their organization just as any other corporation as per its incorporated bylaws.

The CCG recognizes that there are areas of the CCGA Program that require improvement and will address these areas where possible. The following Management Action Plan addresses recommendations arising from this evaluation.

RECOMMENDATIONS	MANAGEMENT ACTION PLAN	OFFICER OF PRIME INTEREST	INITIAL TARGET DATE
1. That the CCG increase its communications with CCGA National and the five CCGA Associations, both formally and informally, and increase its recognition of the CCGA volunteer efforts.	CCG will continue to publish three issues a year of The Auxiliarist newsletter sent to each member of the CCGA. The magazine has been upgraded and includes a message from the CEO, regular inserts on the CCGA Awards Program, the CCGA Insurance Program, Uniform Program, policy & legislation changes, results of SAR Competitions and information on the regional and national activities of the CCGA.	Superintendent, CCGA	Ongoing
	CCG published and distributed to each CCGA member a more comprehensive edition of the CCGA National Guidelines.	Superintendent, CCGA	Completed 2002

RECOMMENDATIONS	MANAGEMENT ACTION PLAN	OFFICER OF PRIME INTEREST	INITIAL TARGET DATE
	CCG issues an Annual Insurance Summary and published a Frequently Asked Insurance Question section in the National Guidelines and The Auxiliarist. Representatives of the CCGA's Insurance Broker have also delivered presentations at the AGMs of the Regional CCGA Associations. (Both are posted on the CCGA web Site).	Superintendent, CCGA	Completed 2002 with ongoing support
	CCG will continue to recognize CCGA members via articles about Auxiliary events published in governmental publications such as SARSCENE Magazine, the USCGA's newsletter The Navigator, Echo, Oceans, Shorelines (Pacific), Fish N Ships (Nfld.), CCGA news also regularly appear in the Wavelength section of DFO's web site.	Superintendent, CCGA	Ongoing
	CCG contributed to the development of the CCGA's own Awards Program by assisting the CCGA in researching and writing the awards criteria for each award. CCG also sits on the CCGA Awards Committee and supports the CCGA with filing nominations for various awards including those sponsored by the National Search and Rescue Secretariat, the Order of Canada, Transport Canada and the CCG.	Superintendent, CCGA	Awards Program completed 2002 with ongoing support
	CCG supports the development of uniform items (badges, pins, crests, epaulettes) and identification material (flags, banners, etc.)	Superintendent, CCGA	Ongoing

RECOMMENDATIONS	MANAGEMENT ACTION PLAN	OFFICER OF PRIME INTEREST	INITIAL TARGET DATE
	CCG organizes CCGA National Council meetings and joint CCG-CCGA meetings. CCG officials attend and participate in CCGA Regional AGMs and Regional Board of Directors Meetings. CCG senior management attends Auxiliary events such as AGMs and SAR Competitions.	Superintendent, CCGA	Ongoing
	DFO Regional Communications Offices issue media backgrounders and press releases following CCGA events such as Award Presentations, SAR Competitions and successful fundraising announcements (Exxon Mobil), etc.	DFO Communications Branch	Ongoing
2. That the CCG ensure that the National Association and the CCGA Associations develop an internal communication strategy to facilitate the sharing of information, best practices and other related tools amongst regional auxiliaries.	CCGA launched its national web site in 2001 with support from the CCG. There has been a significant growth of the site both in terms of content and traffic. An e-mailing list has been developed to inform CCGA members & partners about major updates to the site.	CEO, CCGA	Completed 2001
	CCGA distributes minutes of CCGA National Council Meetings and joint CCG/CCGA meetings to each CCGA President and CCG member of the National Council.	CEO, CCGA	Ongoing
	CCGA produces an Annual Report to the Commissioner covering CCGA activities that is inserted in The Auxiliarist and posted on the CCGA Web site.	CEO, CCGA	Ongoing
	CCGA National monitors press clippings covering CCGA Activities and issues them to the five CCGA Presidents.	National Business Manager, CCGA	Ongoing

RECOMMENDATIONS	MANAGEMENT ACTION PLAN	OFFICER OF PRIME INTEREST	INITIAL TARGET DATE
	CCGA National issues an Annual Calendar covering the CCGA SAR Competitions in every region.	National Business Manager, CCGA	Ongoing
	CCG organized CCG-CCGA Joint Strategic Planning and Policy Development Sessions in 1998 at Mississauga, Ontario and in 2000 at Richmond, B.C. Sessions were used to share best practices, identify priorities, develop policies, strengthen alliances, and plan for the future. Further sessions will be considered.	Superintendent, CCGA	Completed with next session TBD
	A MOU between the USCGA and CCGA (1999) permits the two Auxiliaries to carry out joint training, in SAR, disaster relief, environmental response, courtesy vessel examinations, public education, and boating safety related activities. The MOU encourages the exchange of information, technologies and other material to the benefit of both organizations. The CCG will continue to encourage the CCGA to work closely with the USCGA as per this MOU	Superintendent, CCGA	Ongoing
3. That the CCG ensure that the CCGA members on authorized activities maintain an incident log book or record of their activities as well as compile a communications log. These records must be retained intact as they may be required for later investigation of the incident, for courts	The CCG produces a Radio Communications Incident Logbook that is distributed to every CCGA vessel owner for their use during SAR Operations, patrols and training exercises. CCG will encourage CCGA members to continue using the logbooks and to retain them for later use if required. The logbook will be reviewed in order to determine a means for recording further relevant data including information on the value of property saved	Superintendent, CCGA	2004



RECOMMENDATIONS	MANAGEMENT ACTION PLAN	OFFICER OF PRIME INTEREST	INITIAL TARGET DATE
<p>of inquiry, as well as for future audits and evaluations and reviews. If possible, the value of the property saved should also be captured after completion of each successful tasking.</p>	<p>whenever possible.</p> <p>[Note- It is important to note that many vessel owners, especially commercial fishermen are reluctant to provide the value of their vessels. The CCG as part of its own performance measurement strategy will be investigating the most appropriate method in capturing the value of property saved. In addition, measures and indicators such as CCGA effectiveness (reduced loss of life) and public confidence will also be considered.]</p>		
<p>4. That the CCG ensure that the CCGA capture, in a more national and systematic manner, all data relating to cost-effectiveness.</p>	<p>CCG will encourage CCGA to capture the number of volunteer hours that members contribute to SAR Operations, Boating Safety Activities and administrative and organizational activities. This will permit comparison to other volunteer organizations and provide a valuable tool for assessing the cost-effectiveness of the Auxiliary. CCG supports the collection of volunteer hours and will work with the Auxiliary in developing a collection method.</p>	<p>Superintendent, CCGA</p>	<p>2004</p>
	<p>CCG will encourage CCGA to capture and report where possible on outcome measures and indicators such as awareness and compliance levels with boating safety and fishing vessel safety regulations and the contribution of the CCGA to maritime SAR.</p>	<p>Superintendent, CCGA</p>	<p>2004</p>

RECOMMENDATIONS	MANAGEMENT ACTION PLAN	OFFICER OF PRIME INTEREST	INITIAL TARGET DATE
	CCG has a Results Based Management and Accountability Framework (RMAF) in place that was developed in conjunction with the CCGA. The CCG and CCGA will continue to build upon and enhance the RMAF over time. The RMAF will also indicate the CCGA information requirements for the CCG SAR program in the future.	Manager, SAR	Ongoing
5. That the CCG encourage the National Association to collate all regional data and information into one seamless database that could be readily accessible to both the CCG and the CCGA.	CCG will investigate with the CCGA the feasibility of a national database for capturing regional and national Auxiliary statistics. Two main considerations will be the costs of training and the database itself, and the acceptance of the volunteers to take on additional work.	Superintendent, CCGA	2004
	The CCG recently contracted for the conduct of a complete expenditure audit of each of the six CCGA Associations. The objective of the audits is to ensure that the expenditures incurred by the Auxiliary were in accordance with the terms and conditions of the Contribution Agreements with the CCG and to ensure financial reporting by the CCGA was accurate. As part of the audit, recommendation on bilingual accounting software that could be utilized by the six Auxiliary associations is a deliverable. The CCG will encourage standardization of accounting software for all of the six associations.	Superintendent, CCGA	2004

## 1.0 INTRODUCTION

In 1978 the Canadian Coast Guard (CCG) founded the Canadian Marine Rescue Auxiliary (CMRA) which has since been renamed the Canadian Coast Guard Auxiliary (CCGA) to assist in providing an efficient and cost-effective framework to help coordinate maritime volunteer efforts as part of Canada's Search and Rescue (SAR) system. Six CCGA Associations (five Regional and one National) were federally incorporated as not-for-profit volunteer organizations that provide cost-effective maritime SAR services throughout Canada as well as providing humanitarian assistance when required. Authoritative Memoranda of Agreements (MOA's) which specified the scope of the Auxiliary's services were formally established. Provisions were made for government funding, through the CCG, for reasonable out-of-pocket expenses and insurance incurred while engaged in authorized activities such as SAR operations and SAR prevention activities. These MOA's typically span a five-year period and focus on the Auxiliary's objectives. These objectives include:

- to promote the prevention of the loss of life and/or injury at sea;
- to support CCG in maritime SAR operations; and
- to minimize damage to or loss of property related to the saving of life.

Although the Auxiliary can supplement CCG government funding through their own initiatives such as fundraising as well as various tax-deductible donations from the public and other organizations, only CCG government funding is being considered in this evaluation.

These MOA's expired on March 31, 2002 and consequently were renewed through a formal Treasury Board Secretariat (TBS) submission. These renewed agreements authorize funding to the Auxiliary in order to help it successfully carry out its mandate to assist CCG in SAR operations, SAR prevention and boating safety education, as well as its organizational and administrative costs, training and insurance.

The purpose of this evaluation is to measure the relevance, success and cost-effectiveness of the CCGA in meeting its objectives as defined in the Contribution Agreements. Although the Auxiliary has been the subject of a number of studies and reviews, no previous evaluations, as such, have been conducted. Hence, this evaluation is considered to be a mid-term evaluation.

Furthermore, while building on some of the methodology employed in the 1985 review of the Auxiliary conducted by the Audit Services Bureau, Supply and Services Canada, this evaluation will also establish the baseline data for a future summative evaluation, which, as stipulated in the Results-Based Management and Accountability Framework (RMAF) will be undertaken prior to seeking renewal of the program in 2007. Once the baseline data has been established, the summative evaluation will be very comprehensive in nature, and focus on the medium to longer-term (3 to 5 years) impacts and will be able to assess the overall program effectiveness and value.

## 1.1 BACKGROUND

Fisheries and Oceans Canada (DFO), through the CCG, maintains a formal Contribution Agreement, with each of the five regional CCGA Associations and the National Council, which specifies the conditions under which the Auxiliary members are reimbursed for out-of-pocket expenses, insurance coverage, training and administrative costs. It is the responsibility of the CCG to administer all funds provided under contribution agreements as required by law and is accountable to government policy for selected authorized CCGA activities. Reimbursements are made to the Auxiliary by the CCG to its members upon verification that an authorized activity has indeed occurred.

The CCG has provided funding to the CCGA Associations from departmental resources since their inception in 1978/79. The financial inputs to the CCGA are summarized in Table 1.

**Table 1. Summary of financial inputs to the Canadian Coast Guard Auxiliary by Region and by Fiscal Year.**

TOTAL FUNDING (in dollars)					
Region	1997-98	1998-99	1999-2000	2000-01	2001-02
OPERATING EXPENDITURES					
Pacific	361,000	361,000	500,000	715,000	940,000
Central and Arctic	300,000	300,000	315,000	550,000	545,000
Quebec	285,000	285,000	405,000	560,000	575,000
Maritimes	285,000	285,000	405,000	540,000	570,000
Newfoundland	325,000	325,000	425,000	560,000	600,000
National	944,000	944,000	950,000	1,075,000	1,270,000
<b>Total</b>	<b>\$2,500,000</b>	<b>\$2,500,000</b>	<b>\$3,000,000</b>	<b>\$4,000,000</b>	<b>\$4,500,000</b>

As legally incorporated and non-profit organizations, the five regional CCGA Associations as well as the National Council association, share common objectives with the CCG with respect to maritime SAR operations and Boating Safety activities. The overall mission of the CCGA is: **“To provide a national volunteer marine rescue service”**.

Each of the five CCGA Associations is represented by a Board of Directors and an Executive Committee of Officers of the corporation. Selected executives of these five regional Auxiliary Associations make up the National association. In order to facilitate administrative arrangements and organizational coordination, the five regional associations were incorporated within geographical boundaries that parallel the CCG administrative regions. The regionally aligned CCGA Associations are: Newfoundland, Maritimes, Quebec, Central and Arctic, and Pacific.

The Auxiliary is currently made up of over 4,900 volunteers across Canada who dedicate their time and effort to participate in rescue and maritime safety training in order to continuously maintain or improve their rescue capabilities and state of readiness. The Auxiliary members receive no compensation for their support to the search and rescue programs other than out-of-pocket expenses, yet they are often the first to arrive on the scene of a distress call. With over 1,400 vessels, the CCGA enriches the rescue capacity of the Coast Guard in time of need.

CCGA members have been providing Search and Rescue services and safe boating education programs to Canadians for the past 25 years. To be eligible for CCGA membership, individuals are expected to: have a suitable vessel and have the knowledge, skills, ability and willingness to voluntarily operate their vessel to provide local SAR services; or, to possess the required knowledge, skills, ability and willingness to contribute in support of the common CCGA/CCG objective of preventing loss of life and/or injury at sea.

The Department of National Defence (DND) has the overall responsibility for coordinating SAR response activities in Canada. Joint Rescue Co-ordination Centres (JRCCs) staffed by DND Aeronautical SAR Coordinators and CCG Maritime SAR Coordinators co-ordinate SAR response operations. The CCG also provides Maritime Rescue Sub-Centres in St. John's Newfoundland and in Quebec City, Quebec to assist in coordinating regional maritime SAR operations.

DND (one Canadian Air Division) provides the primary airborne SAR response (rescue helicopters and fixed wing aircraft) and DFO, through the CCG, provides the primary maritime SAR response (patrol-mode and station-mode vessels, including lifeboats and hovercraft).

The authority for CCGA vessels to respond to SAR incidents is normally provided through a tasking from a JRCC or through a Maritime Rescue Sub-Centre (MRSC). Upon approval to proceed to the scene, a SAR incident number is issued and the incident becomes an "authorized activity" as defined in the Contribution Agreement between CCG and the CCGAs.

In formulating its span of responsibility under the Contribution Agreement, the CCGA regularly interacts with three groups of players: clients; partners; and co-deliverers.

Clients include persons aboard recreational boats, commercial vessels, fishing vessels, oil/gas platforms, aircraft, other persons in distress in the maritime environment, as well as some co-deliverers (persons at risk of offshore and inshore incidents and accidents who may require SAR services and who could in fact be beneficiaries of the CCGA).

CCG's Marine Programs Directorate is responsible for the SAR Program and therefore is the key partner in CCGA issues. Co-deliverers include municipalities, provinces, territories, other volunteer organizations, DND, the United States Coast Guard and their Auxiliary, other government departments and agencies, vessels of opportunity as well as the CCG itself.

Since April 1999, regulations under the Canada Shipping Act have been in place to restrict boat operators, provide for mandatory operator competency for powerboats, define minimum safety equipment, and specify other safety precautions. While these are of prime concern to the CCG's Office of Boating Safety, it relies almost exclusively on third parties like the volunteer members

of the CCGA to educate boaters through pleasure craft courtesy checks as well as other promotional and educational activities. In order to be consistent with its priorities, all authorized CCGA Boating Safety activities are planned by the CCG in consultation with the CCGA.

The following background information provides a brief synopsis of the current environment in which each of the five regional CCGA Associations and National Council operate.

- **NEWFOUNDLAND:** CCGA-Newfoundland was federally incorporated on August 30, 1978. Since its inception, the Newfoundland Auxiliary has responded to over 3,600 incidents. Its members do not normally participate in boating safety activities. Since the number of pleasure and recreational boaters in their constituency is low compared with other regions, CCGA-Newfoundland's main pre-occupation is focused on fishing vessels and commercial vessels. The total value of the 485 vessels in CCGA-Newfoundland is over \$171,000,000, while the average value of a CCGA vessel in Newfoundland is approximately \$399,657. CCGA-Newfoundland currently has 1,018 members.
- **MARITIMES:** CCGA-Maritimes was federally incorporated on August 9, 1978. Since its inception, the Maritimes Auxiliary has responded to over 4,500 incidents. They currently have 750 members and 430 enrolled vessels. In 2002, the CCGA-Maritimes responded to 158 Search and Rescue taskings. There are approximately 30 boating safety officers available for courtesy checks, boat shows and safety presentations. The Auxiliary has one vessel which is loaned from the CCG as well as four community-owned vessels at its disposal. The total value of the 430 member vessels which form part of the CCGA-Maritimes is over \$44,000,000, while the average value of a vessel in CCGA-Maritimes is approximately \$78,230.
- **QUEBEC:** La Garde côtière auxilliaire canadienne du Québec (GCAC) was federally incorporated on January 31, 1979. In 2002 the Quebec Auxiliary responded to 483 Search and Rescue taskings and since its inception, it has responded to over 6,500 incidents. Membership is currently at 726 volunteers with 202 enrolled vessels. There are approximately 42 Quebec members trained to conduct courtesy checks of pleasure craft, and in addition, the Auxiliary has actively participated in 36 training exercises. There are approximately 82 members trained to conduct various boating safety activities. In aid of the boating safety program in 2001, Auxiliary members participated in 99 boat shows, exhibitions and displays. Also, La Garde côtière auxilliaire canadienne du Québec is active as a course provider for the Pleasure Craft Operator Card (PCOC) program. Currently, 90% of the members themselves have their PCOCs. La Garde côtière auxilliaire canadienne du Québec has 10 loaned vessels from the CCG. The total value of these 202 member vessels which form part of CCGA-Quebec is over \$16,000,000, while the average value of a vessel in the Quebec Auxiliary is approximately \$86,925.
- **CENTRAL AND ARCTIC:** CCGA-Central and Arctic was federally incorporated on September 29, 1978. Since its inception, the Central and Arctic Auxiliary has responded to over 8,700 incidents and currently has 1,200 members and 115 enrolled vessels. There are 30 Central and Arctic members who can conduct courtesy checks and 15 boating safety advisors. The Auxiliary is active in teaching the majority of Search and Rescue Level I courses. A few members are being trained to teach the Search and Rescue Level II courses. CCGA-Central

and Arctic has 8 loaned vessels from the CCG as well as 20 community owned vessels. The total value of the 115 member vessels is over \$8,000,000, while the average value of a vessel in CCGA-Central and Arctic is approximately \$65,405.

- **PACIFIC:** CCGA-Pacific was federally incorporated on August 11, 1978. Since its inception, the Pacific Auxiliary has responded to over 16,000 incidents. Its members organize various demonstrations and displays and they conduct courtesy checks year round. There are approximately 80 Pacific members trained to conduct courtesy checks of pleasure craft. Its members also provide valuable assistance to the CCG at major boat shows and exhibitions. Also, they provide Very High Frequency (VHF) licensing courses for fishermen and participate in activities for youth. CCGA-Pacific has 4 CCG loaned vessels and 21 community owned vessels. The total value of the 178 member vessels in CCGA-Pacific is over \$18,000,000, while the average value of a vessel is approximately \$102,496.
- **NATIONAL COUNCIL:** The National Association is accountable for the overall management of the five regional CCGA Associations. It is also responsible for the national direction of all Auxiliary matters, which includes fundraising, insurance coverage, marketing, training standards, policy development, foreign issues, and administration. It is also responsible for working closely with the CCG and other partners on matters of common interest.

The CCG, through the Manager, Search and Rescue, is in charge of the overall administration and management of the Canadian Coast Guard Auxiliary funding agreement.

## 1.2 OBJECTIVES AND SCOPE

The objective of this mid-term evaluation is to measure the relevance, success and cost-effectiveness of the CCGA in meeting its objectives as defined in the Contribution Agreements. In addition, the overall management of the CCGA was assessed in the context of how it impacts on their ability to provide the contracted services.

The scope of the evaluation is restricted to activities which were covered under the previous Memorandum of Agreement between the CCG and the CCGA within the five year period covering 1997/98 through to 2001/02. This evaluation focused on:

### Relevance

- The extent to which the CCGA's mandate and objectives continue to be linked to the mandate and objectives of the CCG and DFO.

### Success

- The impacts and effects (both intended and unintended) that the CCGA had on maritime SAR operations.
- The extent to which the CCGA has contributed to public compliance and awareness with marine regulations.
- The proportion of CCGA members being professionally trained to National Standards.

## **Cost-Effectiveness**

- The extent to which the CCGA is cost-effective.
- The manner and the extent to which the CCGA program complements, duplicates, overlaps or works at cross-purposes with other government or private sector groups.

### **1.3 METHODOLOGY**

The evaluation of the CCGA program was based on a multiple lines of evidence approach, utilising three main sources of data including: a literature review of previous reports, newspaper articles, studies and published papers; document reviews of various program files, business plans, DFO's Report on Plans and Priorities, the Departmental Performance Report, contracts, and contribution agreements; as well as a survey questionnaire, followed by key informant interviews.

Survey instruments were developed in order to capture the information for the survey and interviews. The survey utilized a Likert Scale in order to get an overall sense as to the extent to which the respondents agreed or disagreed with statements relating to the continued relevance of the program, its success and its cost-effectiveness. In order to obtain in-depth qualitative information, 14 key CCGA informant interviews and 13 key CCG informant interviews were conducted using a formal structured interview guide which was pre-tested and which addressed all of the evaluation issues. The 27 key informant interviews were apportioned as follows: National (2); Newfoundland (6); Maritimes (4); Quebec (4); Central and Arctic (6); and Pacific (5). This multiple-lines-of-evidence approach allowed the evaluation team to describe in a reliable manner the findings of the program and drew pertinent conclusions which led to the final recommendations.

A traditional cost-effectiveness analysis was not undertaken in a formal sense during this mid-term evaluation. Typically, cost-effectiveness analysis is a methodology which provides summary information about the "net worth or net value" of a program, policy or initiative. Traditionally, it attempts to compare program results with program costs in order to derive a combined measure which incorporates both. That is, in cost-effective analysis the results (benefits) are expressed in terms of real outcomes and do not have to be converted into monetary units. However in this instance, the focus is on the monetary value of the CCGA's output.

It should be noted that all data accumulated for this evaluation will be used as a baseline for the future evaluation scheduled for the 2005/06 fiscal year.



## 2.0 FINDINGS

### 2.1 RELEVANCE

The Auxiliary has been praised as a valuable volunteer organization working in partnership with the CCG. It is known as a voluntary organization that regularly performs highly professional services and continuously proves and reaffirms its merit, dedication, and effectiveness in promoting safety and in saving lives.

The achievements of the Auxiliary are significant, considering that this is a volunteer organization.

When surveying the Auxiliaries about the relevance of the CCGA program, they felt that their mandate and objectives continued to be linked to the mandate and objectives of the CCG and DFO. Of those Auxiliary members surveyed, the majority believed that their mandate continues to be in line with that of the CCG. This was confirmed by the CCG members who were interviewed. They all felt that activities undertaken by the Auxiliaries were in fact totally relevant and consistent with CCG priorities.

CCGA members view themselves as professionals in their SAR capacity and are increasingly ready to take on a wider range of taskings. The mission of the Auxiliary remains consistent with that of the CCG as they are both dedicated to ensuring the safety of the Canadian public, specifically in SAR operations, in which they participate as partners and in prevention and boating safety. By carrying out Boating Safety activities to foster and promote safe practices amongst the different segments of the maritime population, members of the CCGA contribute a very important aspect to the maritime SAR program. The CCG respondents talked about a strong congruency between what the Auxiliary is doing and trying to do, and what the CCG is doing and trying to do.

Regarding the relationship between the CCG and the Auxiliary, there were a range of responses from survey participants: almost half agreed strongly that the relationship needs to be more arm's-length, while almost half disagreed somewhat, and the remaining respondents were unsure. All auxiliarists surveyed felt that their organizations would like to be better recognized as playing a critical role in supporting the CCG. The majority of CCG respondents expressed that their relationship with the Auxiliary was a strong one. The CCG believe that, because the Auxiliary is on the same track as them, the Auxiliary acts as a critical safety valve for the CCG.

Based on these findings, the evaluation concludes the CCGA program is highly relevant and has been as well as continues to be highly focused on the prevention of loss of life and/or injury at sea and when directly related thereto, minimizing damage to or loss of property. Therefore, the CCGA's mandate and objectives continue to be closely linked to that of the CCG. What the CCGA desires as an organization is to have the capacity and the resources to continue to do its work within the scope of the mandate and objectives of the CCG. It is significant to note that SAR service is directly linked to coverage. It is the CCGA that provides the necessary resources, knowledge, maritime experience, seafaring talents and professional conduct in discharging SAR responsibilities that are required to protect Canada's coastline.

## 2.2 SUCCESS

Interviews with CCGA and CCG confirm that the long-standing partnership between the two is an investment from which both sides of the partnership have profited, resulting in tremendous benefits to Canadians. During the 1997-2002 timeframe, auxiliarists felt that they were able to meet most of their objectives within the given budget.

Regional Auxiliary associations have succeeded in establishing extensive networks that facilitate the flow of information that supports their SAR and training activities.

The CCG is continuously looking to leverage technology and make better use of its assets and human resource base in order to achieve a more cost-effective service. This steadily improving and more widespread use of technologies relating to SAR operations has therefore had a direct influence on the CCGA. Improved locating and homing devices and their availability at increasingly reasonable prices (relatively speaking) are contributing to the reduction of scope and duration of searches of some incidents, thus increasing the number of persons saved.

In the last five years, auxiliarists mentioned endorsing such new existing technologies as night-vision goggles, Global Positioning Systems (GPS), simulation training programs, de-watering pumps, fuel-efficient engines and search lights. Discussion also revealed that many regions promoted the use of computer resources at a more basic level to help with its day-to-day work.

Pleasure Craft Courtesy Checks (PCCCs) are a significant part of the CCGA's boating safety program and remains a significant activity for regional auxiliaries. The number of PCCCs has remained relatively constant over the past five years. This may be attributable to (as some interviewees have suggested) the same vessel owners requesting an annual PCCC in order to demonstrate compliance with the boating safety requirements and to receive a new certification decal each year.

All auxiliarists acknowledged receiving professional training that met the national training standards. Only those who meet the training standards participate in SAR operations. A large majority regularly follow re-validation training in order to maintain those skills; however the respondents were split in their opinions on whether the number of development courses offered is adequate.

Auxiliaries have contributed to the skills and knowledge of its members. In addition to the implementation of the national training standard mentioned above, some regions supplemented this with their own training material, created new standards and switched to a competency based system. All regions felt that their auxiliarists are very well trained. All auxiliarists must meet national standards before they participate in SAR activities and the level of fully-trained auxiliarists in each region ranges from a minimum of 75% to a maximum of 95%.

Over the past five years, Auxiliaries have begun to create region-specific training manuals and standards and have switched to a competency-based system. This allows for the complete assurance (through testing) that each auxiliary member has met specific training goals before moving onto the next required competency. SAR courses have been rewritten and skills are being evaluated by independent outside authorities. In each region everyone has at least the

minimum in required standards. Drawing from lessons learned, they have developed, created and implemented their own advanced training standards as well as consistent regional standards for re-certification, ethical conduct, and its member and executive positions.

When discussing the reach of the CCGA, the respondents agreed that it had improved during the five-year evaluation period through a combination of increased awareness leading to more prevention and better promotion and more vessels out in the area. An issue which the next evaluation scheduled for 2005/06 could address is the extent to which public confidence in maritime safety has increased or decreased.

During this five-year evaluation period, those interviewed have noticed a number of changes that impact on the success of the program. The CCGA, especially its SAR component, has contributed increasingly to maritime safety as some regions logged 400 to 500 incidents per year. Incidents increased, as did the number and size of boats out on the water. Regions asked themselves how they could better spend/manage their money while still keeping the focus on SAR. The integration of these lessons learned has resulted in the creation of extensive pre-planning and follow-up planning along with the development of several operational and administrative standards in certain regions. Respondents also developed data bases that can hold and maintain relevant information related to best practices (such as response times and equipment used) that can be accessed and used to improve results.

For the most part, interviewees did not see any necessity for major changes to the program, but several of them suggested that there certainly was room for improvement with respect to communications. There is room for improvement between the regions and the National component of the CCGA as well as better and timelier communications between the CCGA and CCG (Headquarters).

One concern expressed was that the regions were not doing enough to better reflect a National approach to providing auxiliary services, while at the same time preserving the relative uniqueness of their region. It was clearly articulated that there needs to be more opportunity provided for regional associations to share their strengths and ideas, as they can all learn and benefit from each other.

Insofar as the relationship and similarities between the CCGA and other similar organizations, the respondents all agreed that their interactions with Ground Search and Rescue (GSAR) and Civil Air Search and Rescue Association (CASARA) were very good. They often participated in the same exercises and occasionally attended each others Annual General Meetings. The Auxiliary also had and continue to have very good relations with other organizations such as the Canadian Power and Sail Squadron.

Based on its findings, the evaluation concludes that overall, the CCGA under the direction of the CCG, continues to be highly successful in supporting SAR and boating safety activities. The auxiliarists are professionally trained individuals who demonstrate a tremendous dedication to their work and continue to provide positive impacts on maritime SAR operations. However, while this evaluation could not effectively show evidence as to the extent to which the CCGA has contributed to public compliance and awareness of maritime regulations, the evaluation findings reveal that there has been an impressive contribution.

## 2.3 COST-EFFECTIVENESS

The CCG reimburses the Auxiliary's out-of-pocket expenses incurred, while conducting activities such as SAR operations and safety promotion that have been authorized by the CCG. This includes all costs associated with insurance protection as well as providing training and other support consistent with the terms and conditions of Contribution Agreements between CCG and each CCGA Association.

During the past several years, the Auxiliary has seen their role expand as partners with the CCG in saving lives. They also undertake a critical and essential responsibility in bringing vessels back to safety, preventing property losses, preventing potential accidents as a result of courtesy checks, administering first-aid when required and providing safety information at boat shows throughout the country.

The citizens of Canada receive this service at a fraction of the cost, had SAR operations and other authorized activities been performed solely by private enterprise or solely by the federal government's CCG. If funding levels were reduced, training and safety promotion (prevention) would be the first areas negatively influenced. SAR operations would also be dangerously affected as the members would in all likelihood be trained below national standards.

It is expected that the rising costs of SAR operations, due to rising fuel costs and duration of incidents as well as increased insurance premiums and administration costs, will have an effect on how the CCGA does its business. They will need to be increasingly vigilant in the use of funds and more efficient in managing their resources. This suggests that less funding should be directed towards administration costs and there needs to be some sort of realignment of resources with respect to Operations, Prevention, and Training.

In determining the extent to which the CCGA operates in a cost-effective manner, all respondents felt that the current relationship between costs and results are reasonable and they all strongly agreed that the Auxiliary's SAR operations must take full advantage of technological developments in order to maximize its life-saving capacity on a more cost-effective basis. The relatively low cost of maintaining a vast volunteer readiness capability and deploying volunteer vessels with the absence of any salary payments make tasking and involvement of volunteers a very cost-effective proposition. There is little doubt that without CCGA volunteers, an equivalent public sector response system would cost Canadian taxpayers considerably more.

It was evident that the use of new equipment, gear and material helped increase the effectiveness of the Auxiliary's SAR operations. This increased effectiveness has been due in large part to the evolution of new technologies within the realm of water safety. The respondents have stated that the number of lives saved has increased due to the many improvements in SAR, the introduction of night vision goggles as well as de-watering pumps. The advent of GPS and the Self Locating Data Marker Buoy system has provided search and rescue teams with greater accuracy in searches and improved response time thereby reducing the number of lives at risk and a great deal of money saved through related efforts to minimized damage to property.

If the role and presence of the CCGA were ever to be brought to an end or reduced, the slack would have to be taken up by the CCG. Since many districts only have the Auxiliary to provide a

specialized emergency readiness and response service within close proximity, Auxiliary absence would result in mariners being exposed to unnecessary risk and being placed in serious jeopardy.

**CAVEAT:** In order to provide sound statistical analysis the data presented must be reliable, valid and credible. **Reliability** is the situation where a methodology consistently produces the same results given that the situation has not changed much over time; **validity** is the extent to which the data accurately represents what it is intended and presumed to represent; and **credibility**, is the condition where findings clearly show an understanding of the program, the issues, and the current environment in which it operates.

The data presented in the following tables are based, for the most part, on information provided by the CCGA-Newfoundland. While this data may have been originally captured in a variety of different ways and may be subjective in nature, the tables derived and the subsequent analysis are meant to provide the reader with a reasonable sense as to the cost-effectiveness of volunteer work within the CCGA-Newfoundland and are not meant to be quoted as the definitive source for exact and precise figures. It should be noted that there are a number of intangible benefits which auxiliaries acquire as a result of their volunteer work - such as improvement in self-esteem, self-worth, general life satisfaction, which play a significant role in societal benefits but which will not be examined in this evaluation.

The total number of volunteer hours representing the number of full-time jobs within the CCGA-Newfoundland is shown in Table 2. It is noted that, in terms of equivalencies, the total number of volunteer hours for 2001 equates to 32 full-time-year-round jobs. From a mathematical perspective, the CCG would have had to hire at least 32 new staff members just to address the 52,405 hours that the volunteers carried out in 2001. This indicator is evidence that the program is cost-effective in terms of deploying human resources throughout the Newfoundland area in such a way as to maximize the amount of area covered. Hence, for 2001, it can be stated that there was a greater propensity for helping to save lives in Newfoundland with 954 CCGA volunteers, than with the 32 full-time individuals whom the CCG would have had to hire given the large geographical area for which they are responsible.

**Table 2. The total number of volunteer hours representing the number of full-time jobs within the CCGA-Newfoundland.**

YEAR	TOTAL NUMBER OF VOLUNTEER HOURS <sup>1</sup> (based on an average of 5 Auxiliaries per vessel)	NUMBER OF HOURS IN ONE FULL-TIME YEAR-ROUND JOB <sup>2</sup>	ESTIMATED NUMBER OF FULL TIME JOBS
<b>CCGA-NEWFOUNDLAND</b>			
1997	6,547 x 5= 32,735	1636.8	20
1998	12,046 x 5= 60,230	1632.0	37
1999	8,802 x 5= 44,010	1675.2	26
2000	10,162 x 5= 50,810	1680.0	30
<b>2001</b>	<b>10,481 x 5= 52,405</b>	<b>1660.8</b>	<b>32</b>

Table 3 represents an estimate of the dollar value of activities undertaken by the CCGA-Newfoundland. This perspective, based on the estimated dollar value of volunteer work, is another method for examining the cost-effectiveness issue. In Table 3 it can be shown that the estimated dollar value of this volunteer work in 2001 was \$818,042. This is a pure economic dollar value of services rendered and without any consideration to the other economic and humanitarian benefits accrued during the course of 2001. This demonstrates a clear and obvious, as well as a measurable component of cost effectiveness.

**Table 3. An estimate of the dollar value of activities undertaken by the CCGA-Newfoundland.**

YEAR	TOTAL NUMBER OF VOLUNTEER HOURS <sup>1</sup> (based on an average of 5 Auxiliaries per vessel)	AVERAGE HOURLY WAGE <sup>3</sup>	ESTIMATED DOLLAR VALUE OF VOLUNTEER WORK
<b>CCGA-NEWFOUNDLAND</b>			
1997	32,735	\$13.60	\$445,196
1998	60,230	\$14.22	\$856,471
1999	44,010	\$14.70	\$646,947
2000	50,810	\$15.15	\$769,772
<b>2001</b>	<b>52,405</b>	<b>\$15.61</b>	<b>\$818,042</b>

An estimate of the cost-effectiveness of the work undertaken by the CCGA-Newfoundland is summarized in Table 4. From this Table, it is noted that the estimated dollar value of the CCGA's volunteer work over the past five years has been in excess of \$3.5 million dollars within the CCGA-Newfoundland. In examining this data, it was found that it has cost the Canadian taxpayer an average of \$455 per CCGA-Newfoundland volunteer. This has resulted in the successful completion of over 1100 Taskings (where Newfoundland Auxiliaries have played a significant role in saving a property and a number of lives -- their primary objective); as well as a cost-avoidance representing the average equivalent of 29 full-time jobs each year in terms of their total estimated dollar value of \$3,536,428 (not including major overhead expenditures such as medical insurance, hospital insurance, paid vacation leave, paid sick leave, paid statutory holidays, etc). As mentioned in Table 3, the 954 CCGA volunteers in 2001 were spread out across the whole Newfoundland Region as a result were able to cover more ground and therefore be much more cost-effective in saving lives and property than the estimated 32 persons which the Coast Guard would have had to hire.

**Table 4. An estimate of the cost-effectiveness of the work undertaken by the CCGA-Newfoundland volunteers.**

YEAR	TOTAL NUMBER OF CCGA VOLUNTEERS <sup>1</sup>	TOTAL BUDGET <sup>1</sup>	AVERAGE COST/CCGA VOLUNTEER	TOTAL MARINE TASKINGS <sup>1</sup>	EQUIVALENT NUMBER OF FULL-TIME JOBS	ESTIMATED DOLLAR VALUE OF VOLUNTEER WORK
<b>CCGA-NEWFOUNDLAND</b>						
<b>1997</b>	643	(1996/97) \$200,000	\$311	168	20	\$445,196
<b>1998</b>	714	(1997/98) \$325,000	\$280	226	37	\$856,471
<b>1999</b>	834	(1998/99) \$325,000	\$390	237	26	\$646,947
<b>2000</b>	883	(1999/00) \$425,000	\$481	236	30	\$769,772
<b>2001</b>	954	(2000/01) \$560,000	\$587	239	32	\$818,042
<b>TOTAL</b>	<b>4028</b>	<b>\$1,835,000</b>	<b>\$455</b> (average)	<b>1106</b>	<b>29</b> (average)	<b>\$3,536,428</b>

Furthermore, by taking the data supplied in Table 2, Table 3 and Table 4, evidence of a significant measure of cost-avoidance can be shown:

$$\frac{\$818,042 - \text{Table 3: (estimated dollar value of volunteer work in 2001)}}{32 - \text{Table 2: (estimated number of full-time jobs in 2001)}} = \$25,563$$

where \$25,563 is the average salary cost attributed to hiring one CCG employee (less all of the regular benefits associated with a federal government job, such as medical and dental plans, pension plan, annual leave, sick leave, etc.). Then:

$$\$25,563 / \$587 = \$43.55$$

where \$587 is the average cost per CCGA volunteer in 2001 and \$43.55 is the resulting return on a public good investment (cost-avoidance) within the CCGA-Newfoundland. Cost Avoidance is defined as the reduction or elimination of a *new* cost that would have otherwise occurred. In other words, every dollar expended, results in a cost-avoidance of approximately \$43.

An additional way of looking at cost-effectiveness is in terms of cost-savings. This was achieved by inputting the 2001 monetary and person-years information into the same formula employed by Audit Services Bureau, Supply and Services Canada, in their 1985 study titled *The Functional Review of the Canadian Marine Rescue Auxiliary* (former name of CCGA).

***Direct Cost paid by the Coast Guard***

a) Expenditures as per Contribution	\$ 4,500,000
b) Expenditures for Coast Guard Admin Support	<u>\$ 1,500,000</u>
Direct Costs	\$ 6,000,000

**Hidden Costs**

c) 4988 person years at a standby salary of approximately \$41,000	\$ 204,508,000
d) 1410 vessels at a capital cost of \$285,000,000 (insured value) depreciated over 20 years	<u>\$ 14,250,000</u>
Hidden Costs	\$ 218,758,000
<b>Total Costs</b>	<b>\$ 224,758,000</b>

Hence, the degree of financial leverage is high. Cost-savings is defined as an action, which must be both identifiable and measurable, that will result in a smaller than projected amount of costs to achieve a specified objective. In this case, it is noted that for each dollar invested, the CCG has access to approximately \$37 of service. That is, for every dollar expended there is a cost-savings of \$37.

**Note:**

- For (b) an estimate of the current administrative support was used.
- The cost of insurance premiums is reflected in the \$4,500,000 contribution allotment.
- The standby salary was arrived at by averaging the annual salary of a four-person professional CCG crew. This number does not include overtime costs and benefits.

This evaluation concludes that the CCGA continues to be a cost-effective organization which, as the volunteer-arm of the CCG, effectively complements the CCG's maritime safety mandate.



### 3.0 RECOMMENDATIONS

1. It is recommended that the CCG increase its communications with CCGA National and the five CCGA Associations, both formally and informally, and increase its recognition of the CCGA volunteer efforts.
2. It is recommended that the CCG ensure that the National Association and the CCGA Associations develop an internal communication strategy to facilitate the sharing of information, best practices and other related tools amongst regional auxiliaries.
3. It is recommended that the CCG ensure that the CCGA members on authorized activities maintain an incident log book or record of their activities as well as compile a communications log. These records must be retained intact as they may be required for later investigation of the incident, for courts of inquiry, as well as for future audits and evaluations and reviews. If possible, the value of the property saved should also be captured after each successful tasking completed.
4. It is recommended that the CCG ensure that the CCGA capture, in a more national and systematic manner, all data relating to cost-effectiveness.
5. It is recommended that the CCG encourage the National Association to collate all regional data and information into one seamless database that could be readily accessible to both the CCG and the CCGA.

#### *Reference Sources in Cost-Effectiveness Tables 2-4.*

1. Supplied by the CCGA-Newfoundland / Fourni par la GCAC Terre-Neuve.
2. Labour Force Historical Review, 2001. Statistics Canada – Cat. No. 71-F0004 XCB: Table 15An -Total and Average Usual and Actual Hours worked by Age Group, Sex, Full and Part-Time. Main and All Jobs, Canada, Province and Annual Average. Revue chronologique de la population active, 2001. Statistique Canada – No. 71-F0004 XCB au catalogue : Tableau 15An-Total et moyenne des heures habituellement et effectivement travaillées selon le groupe d'âge, le travail à temps plein à temps partiel, emploi principal, tous les emplois, Canada, province, moyenne annuelle.
3. Annual Estimates of Employment, Earnings and Hours, 1991-2000. Statistics Canada – Cat. No. 72-F0023 XCB: Table 5-Estimates of Average Hourly Earnings for Employees Paid by the Hour, by Industry, Canada, Provinces and Territories. (For 1997 – 2000); Les Estimations annuelles de l'emploi, des gains et de la durée du travail, 1991-2000. Statistique Canada – No. 72-F0023 XCB au catalogue : Tableau 5-Estimations de la rémunération horaire moyenne, des salariés rémunérés à l'heure, par industrie, Canada, provinces et territoires. (Pour 1997 – 2000); Employment, Earnings and Hours, Jan 2002. Statistics Canada - Cat. No. 72-002-XIB: Table 6-Estimates of Employment, Average Hourly Earnings and Hour, by Industry, Canada, Provinces and Territories. (For 2001); Emploi, gains et durée du travail, Janvier 2002. Statistique Canada – No. 72-002 XIB au catalogue :

Tableau 6 -Estimations de l'emploi, de la rémunération horaire moyenne et des heures, pour les salariés rémunérés à l'heure, par industrie, Canada, provinces et territoires. (Pour 2001).