



National  
Defence

Défense  
nationale

Chief Review Services Chef - Service d'examen

CRS  CS Ex



## Evaluation of COSPAS-SARSAT Secretariat Contribution Program

May 2010

1258-183 (CRS)



Canada 

## Table of Contents

<b>Acronyms and Abbreviations</b> .....	<b>i</b>
<b>Results in Brief</b> .....	<b>ii</b>
<b>Introduction</b> .....	<b>1</b>
Background .....	1
Aim .....	1
Objectives .....	1
Scope .....	2
Methodology.....	2
Description of Program.....	3
<b>Findings and Recommendations</b> .....	<b>4</b>
Relevance .....	4
Continued Need for Program .....	4
Alignment with Government Priorities .....	6
Alignment with Federal Roles and Responsibilities .....	8
Performance.....	9
Achievement of Expected Outcomes.....	9
Demonstration of Efficiency and Economy .....	14
<b>Conclusion</b> .....	<b>16</b>
<b>Annex A—Management Action Plan</b> .....	<b>A-1</b>



## Acronyms and Abbreviations

CF	Canadian Forces
COSPAS-SARSAT	Search and Rescue Satellite-Aided Tracking
CRS	Chief Review Services
DND	Department of National Defence
ELT	Emergency Locator Transmitter
EPIRB	Emergency Positions Indication Radio Beacon (for maritime purposes)
ETSI	European Telecommunications Standards Institute
EUMETSAT	European Organization for Meteorological Satellite
EUROCAE	European Organization for Civil Aviation Equipment
FY	Fiscal Year
GEOSAR	Geostationary SAR
GST	Goods and Services Tax
IBRD	International Beacon Registration Database
ICAO	International Civil Aviation Organization
ICSPA	International COSPAS-SARSAT Program Agreement
IMO	International Maritime Organization
IMSO	International Mobile Satellite Organization
IT	Information Technology
ITU	International Telecommunication Union
LEOSAR	Low Earth Orbit Search and Rescue
MEOSAR	Medium-Earth Orbit SAR
MHz	Megahertz
No.	Number
NSP	National Search and Rescue Program
NSS	National Search and Rescue Secretariat
OPI	Office of Primary Interest
PLB	Personal Locator Beacon
QST	Quebec Sales Tax
RTCA	Radio Technical Commission for Aeronautics
RTCM	Radio Technical Commission for Maritime Services
SAR	Search and Rescue
UNIMO	United Nations International Maritime Organization

## Results in Brief

The Terms and Conditions for the COSPAS-SARSAT<sup>1</sup> Secretariat Contribution Program were approved on 1 April 2006 and are effective until 31 March 2011. Cash phasing for this Contribution was set at a maximum of \$190,000 per year over the stipulated five-year period.

The COSPAS-SARSAT Secretariat is the permanent administrative body for the International COSPAS-SARSAT Program. It assists an international council in the implementation of its functions, under the provisions of the International COSPAS-SARSAT Program Agreement (ICSPA). As well, it provides administrative support and is the focus for international coordination and access to the system for nations that wish to participate.

### Overall Assessment

- The COSPAS-SARSAT Secretariat is relevant to the needs of Canadians for supporting the efficient management and performance of SAR capabilities within and outside Canada.
- The Secretariat is successfully achieving the expected outcomes.

## Findings and Recommendations

### Relevance

Search and rescue (SAR) in Canada is a clearly articulated priority of the Government of Canada. Although responsibilities are shared by six departments, overall roles and responsibilities are federal.

The International COSPAS-SARSAT Program provides accurate, timely and reliable distress alert and location data to enable SAR authorities to assist persons in distress both in Canada and abroad. As an international program, it is supported by a secretariat that provides primarily administrative services to the governing council.

This evaluation has determined that the Program continues to be relevant and that there is a need for the Secretariat.

### Performance

The Secretariat provides the Council with annual work and spending plans, financial statements, objectives for the Head of the Secretariat and Status of Actions reports. As evidenced in these reports, the Secretariat has been successful in achieving its expected outcomes related to the provision of conference, administrative, technical and liaison services.

<sup>1</sup> COSPAS-SARSAT stands for Cosmicheskaya Sistema Poiska Avariynyh Sudov (Космическая Система Поиска Аварийных Судов), which is Russian for Search and Rescue Satellite-Aided Tracking.

During the period assessed, the Secretariat was consistent with its expenditures and accomplished the expected outcomes as per the forecasted annual spending plans.

While a concern was raised that an increasing workload could adversely affect effectiveness, an improved performance measurement framework will be required to clearly identify causes and suggest potential remedies.

### **Recommendations**

The National Search and Rescue Secretariat (NSS) should work with the COSPAS-SARSAT Secretariat to establish an improved performance measurement strategy and to seek the renewal of the COSPAS-SARSAT Secretariat Contribution Agreement.

---

**Note:** For a more detailed list of Chief Review Services (CRS) recommendations and management response, please refer to [Annex A](#)—Management Action Plan.

---



## Introduction

### Background

In accordance with the Department of National Defence/Canadian Forces (DND/CF) Evaluation Work Plan for FY 2009/10, an evaluation of the COSPAS-SARSAT Secretariat Contribution Program was conducted.

The COSPAS-SARSAT Secretariat Contribution Program came into effect on 1 April 2006 and will expire on 31 March 2011. The Program will receive total funding of up to \$950,000 over the five-year period.

### Aim

The aim of this evaluation was to assess the relevance and performance of the COSPAS-SARSAT Secretariat Contribution Program.

### Objectives

This evaluation considered the following:

**Relevance.** The following core issues were considered when measuring the Program's relevance:

- **Continued Need.** Does the COSPAS-SARSAT Secretariat continue to address a demonstrable need and is it responsive to the needs of Canadians?
- **Alignment with Government Priorities.** Is the COSPAS-SARSAT Secretariat Contribution Program aligned with federal government priorities and DND/CF strategic outcomes?
- **Alignment with Federal Roles and Responsibilities.** Does the Contribution Program align with current federal roles and responsibilities?

**Performance (effectiveness, efficiency and economy).** The extent to which the Program was successful in achieving its expected outcomes and has been functioning effectively and efficiently, i.e.:

- **Achievement of Expected Outcomes.** Does the COSPAS-SARSAT Secretariat achieve its functions (conference, administrative and technical services; liaison activities; other services required by Council) as outlined in the Agreement?
- **Demonstration of Efficiency and Economy.** Are appropriate and efficient means being used by the COSPAS-SARSAT Secretariat in achieving its functions? Are there alternatives for delivering these services?

## Scope

This evaluation assessed program performance and relevance for the period FY 2006/07 to FY 2009/10 as per the Policy on Evaluation. The COSPAS-SARSAT Program itself is international in scope; however, only the relevance and performance of the functions provided by the COSPAS-SARSAT Secretariat, as funded through the Government of Canada's Contribution Program, were assessed. The share of the common costs provided by the other three founding parties (United States, France and Russia) or the participant countries were not directly examined.

## Methodology

The evaluation used the following methodologies to collect lines of evidence:

**Document/Data Review.** The initial document review consisted of gaining an understanding of the Program and its context to assist in the planning phase. A more comprehensive document review was conducted to collect and assess program data (e.g., financial, performance measurement, other types of data collected by the Program). An analysis of program data was conducted to assess the relevance and performance of the Program.

**Interviews.** Interviews were held with those involved in running the Program such as representatives of the NSS, as well as the Head of the COSPAS-SARSAT Secretariat.

**Costing Analysis.** Based on a review of documentation and financial files, the costing analysis considered whether appropriate and efficient means are being used by the COSPAS-SARSAT Secretariat in the achievement of its functions. Also, consideration was given to whether there are alternatives for delivering these services.

**Limitations.** When the Contribution Agreement was approved in 2006, a Results-based Management and Accountability Framework was not required. Therefore, the functions listed in the Terms and Conditions were used to evaluate the performance of the Secretariat. Functions included in the evaluation consisted of:

- Conference services for the meetings of the Council and its subsidiary bodies;
- Administrative services related to general correspondence, system documentation and promotional materials;
- Technical services, including the preparation of reports as instructed by the Council; and
- Liaison with ground segment providers, user States and international organizations.

## Description of Program

The International COSPAS-SARSAT Program supports a satellite-based distress alerting system that is a key part of national and international air, marine and ground SAR systems. When an alert is received, response authorities intervene to prevent loss of life. This system significantly reduces the amount of time that rescuers spend searching in rescue operations. It ensures that all Canadians within and, to a great extent, even those outside Canada's SAR zone of responsibility are provided with a real-time response when an emergency beacon is activated.

The ICSPA was signed on 1 July 1988 by the four founding parties: Canada, United States, Russia and France. Under the ICSPA, the four parties agreed to establish a permanent, dedicated secretariat to provide administrative support and to be the focus for international coordination and access to the system for nations wishing to participate in it. The parties entered into an understanding with the International Mobile Satellite Organization (IMSO), which is the intergovernmental agency sponsored by the United Nations International Maritime Organization (UNIMO).

Canada, along with the other founding parties, continues to play a major role in the development of the COSPAS-SARSAT system. Following the establishment of the ICSPA, a council (composed of one representative of each founding party) and a secretariat were formed. The COSPAS-SARSAT Secretariat is the permanent administrative body for the Program and it assists the Council in the implementation of its functions, under the provisions of the ICSPA. The Secretariat takes direction from the COSPAS-SARSAT Council in the performance of its own functions (see [Limitations](#) section for a description of the functions).

Canadian funding of this Contribution Program was set at a maximum of \$190,000 per year over the stipulated five-year period. The other three parties also each contribute \$190,000 per year to the Secretariat. In addition, participant countries each contribute \$42,000 per year to the Secretariat. These participants do not have representation on the Council and thus have no say in the direction or future of the COSPAS-SARSAT Program. Canada makes its contribution to the COSPAS-SARSAT Secretariat through the NSS.

Eligible expenditures are the common costs associated with the organization, administration and coordination of the ICSPA, as agreed to by the Council, including those incurred in financing the activities of the Council and the Secretariat. As there are now 37 participant countries, in addition to the four founding parties, Canada's contribution represents about 8.2 percent of the total<sup>2</sup> contributions.

---

<sup>2</sup> Four parties at \$190,000 annually plus 37 parties at \$42,000 annually equals total contributions of \$2,314,000.



## Findings and Recommendations

### Relevance

#### Continued Need for Program

The Program continues to address a demonstrable need and is responsive to the needs of Canadians.

The ICSPA, signed in 1988, defines the means by which the four founding parties coordinate the management of the COSPAS-SARSAT system and cooperate with other national authorities and relevant international organizations in the operation and coordination of the system.

The International COSPAS-SARSAT Program continues to provide accurate, timely and reliable distress alert and location data to enable SAR authorities to assist persons in distress. Canadians both inside and outside of Canada can access this service if they find themselves in need, as long as they have a registered emergency beacon and are located within an area of satellite coverage. Emergency beacons are mandatory on Canadian commercial aircraft and watercraft and are available for personal purchase.

Table 1 shows the demand for emergency beacons within Canada through new beacon registrations in 2009, and the total beacons registered to date. It also depicts the percentage increase in new beacon registrations in 2009. Since 1 February 2009, the COSPAS-SARSAT system only processes the 406 megahertz (MHz) emergency beacons and no longer responds to 121.5/243.0 MHz emergency beacons. The transition to the new emergency beacon type has resulted in a large increase in new registrations, especially in the number of Emergency Locator Transmitter (ELT) beacons registered for aviation purposes, which has increased by 156 percent in 2009.

Type of Beacon	New Registrations 2009	Total Registered	% Increase in New Registrations (2009)
ELT <sup>3</sup>	3,146	5,158	156%
EPIRB <sup>4</sup>	462	8,016	6.12%
PLB <sup>5</sup>	590	3,241	22.3%
<b>Total Registered Beacons</b>	<b>4,198</b>	<b>16,415</b>	<b>34.36%</b>

**Table 1. Type of Beacons and the Number of Beacons Registered.** This table shows the number of new registrations based on beacon types in 2009, the number of total registered beacons to date and percent increase in new registrations in 2009.

Source: [www.nss.gc.ca](http://www.nss.gc.ca). As of 20 November 2009.

<sup>3</sup> Emergency Locator Transmitter for aviation purposes.

<sup>4</sup> Emergency Positions Indicating Radio Beacons for maritime purposes.

<sup>5</sup> Personal locator beacon for inland use.

In an effort to enhance the COSPAS-SARSAT system, planning is now under way for COSPAS-SARSAT to move from the Low Earth Orbit SAR (LEOSAR) and the Geostationary SAR (GEOSAR) systems to a Medium Earth Orbit SAR (MEOSAR) satellite constellation, possibly as soon as 2010. MEOSAR will provide detection and location of distress signals almost in real-time for any point on the globe.

As shown in Table 2, SAR services and, in particular, the COSPAS-SARSAT satellite services are needed and used by the registered beacon users, including Canadians, in distress. This need is closely linked to the importance of the work the COSPAS-SARSAT Council does in running the satellite-based distress alerting system and thus the need for the existence of the COSPAS-SARSAT Secretariat to provide the administrative support to the Council in the implementation of its functions.

	2006	2007	2008
No. of SAR events assisted by COSPAS-SARSAT alert data	452	562	502
No. of persons rescued	1,881	2,386	1,981

**Table 2. Number of Worldwide SAR Events Assisted by COSPAS-SARSAT.** This table depicts the number of SAR events which were assisted by COSPAS-SARSAT alert data as well as the number of persons rescued in these SAR events from January 2006 to December 2008.<sup>6</sup>

<sup>6</sup> COSPAS-SARSAT Report on System Status and Operations, January-December 2008, Annex C, page 3.

## Alignment with Government Priorities

COSPAS-SARSAT objectives continue to be aligned with federal government priorities and departmental strategic outcomes.

The objective of the COSPAS-SARSAT system is to reduce, as far as possible, the time required to locate a distress signal and provide assistance, as this has a direct impact on the probability of survival of the person in distress at sea or on land.

Over the years, it has been clearly established that SAR is a critical service to Canada and Canadians due to the country's size, climate, topography and population. *Results for Canadians*, published in 2000, reiterates this by stating that the Government must ensure the integrity of programs critical to the health, safety and well-being of Canadians.<sup>7</sup>

The federal government's obligation for SAR is shared by six separate federal-level organizations, each with specific roles and responsibilities:

- CF (DND);
- Canadian Coast Guard (Fisheries and Oceans);
- Royal Canadian Mounted Police (Public Safety Canada);
- Transport Canada;
- Meteorological Service of Canada (Environment Canada); and
- Parks Canada Agency.

Strategic outcomes for the DND/CF are contained in the Canada First Defence Strategy. In the Introduction to this document, the Prime Minister states that “this Government took office with a firm commitment to stand up for Canada. Fulfilling this obligation means keeping our citizens safe and secure (...).” Further, SAR program objectives are reflected in the following core mission identified in the Strategy: “conduct daily domestic and continental operations, including in the Arctic (...).”<sup>8</sup>

SAR is a sub-activity for one of the DND/CF's strategic objectives: *Defence operations will improve peace, stability and security wherever deployed*. This sub-activity is described as follows in the recently revised Program Activity Architecture for the DND:

“National Defence is responsible within the Canadian Federal Area of Responsibility, as defined by International Agreements, for the provision of aeronautical SAR services and effective operation of the coordinated aeronautical and maritime SAR system. This program will provide Defence's contribution to Canada's SAR service. Program activities include the efficient operation of aeronautical and maritime components of the coordinated SAR system, the provision and operation of the Rescue Coordination Centres and other SAR facilities in conjunction with the Canadian Coast Guard and the coordination, control and conduct of aeronautical SAR operations within the Canadian area of responsibility. The NSS is an independent body outside the line authorities of the

<sup>7</sup> Results for Canadians, A Management Framework for the Government of Canada, 2000, page 32.

<sup>8</sup> Canada First Defence Strategy, 2009.

SAR delivery departments whose role is to enhance the provision of effective, efficient and economical SAR services in Canada by facilitating the development of the National Search and Rescue Program (NSP).”<sup>9</sup>

---

<sup>9</sup> National Defence Program Activity Architecture, effective 28 May 2009.



## Alignment with Federal Roles and Responsibilities

The roles and responsibilities of the COSPAS-SARSAT are aligned with those of the federal government.

Involving six different departments (see [Alignment with Government Priorities](#)), SAR is clearly a federal responsibility. The NSS was established in 1986 in order to support and manage national SAR activities and programs and hence ensure the achievement of highly effective and efficient SAR programs across Canada. As part of this responsibility, NSS monitors the evolution of 406 MHz beacons as well as alternative emergency alerting technologies used for SAR notification while the CF is responsible for maintaining the Canadian Beacon Registry.

In addition, NSS provides interdepartmental coordination amongst the six federal SAR delivery organizations. It also works directly with non-federal jurisdictions such as provincial and territorial SAR authorities and police services in order to develop and standardize the quantity and quality of SAR services available to the provinces and territories.

As the federal secretariat for SAR, the NSS provides Canadian representation on the international COSPAS-SARSAT Council. The NSS is therefore responsible for managing the COSPAS-SARSAT Secretariat Contribution Agreement. Since the Minister of National Defence is the lead minister of SAR, the funding for NSS and hence the COSPAS-SARSAT Secretariat Contribution Program comes from the DND/CF.

## Performance

### Achievement of Expected Outcomes

The COSPAS-SARSAT Secretariat is successfully achieving its expected outcomes.

Prior to 2006, it was deemed that the COSPAS-SARSAT Secretariat had acceptable governance and review mechanisms that could reliably allow the Government of Canada to assess the benefits of its participation. Sound management and responsible use of federal funds are advocated through Canada's representation on the Council as well as the promotion of effective and efficient programs, practices and results. Canada participates fully in all COSPAS-SARSAT steering committees and working groups, as well as the Council. Given that COSPAS-SARSAT financial decisions are required to be unanimous, Canada has full oversight of its investment. In addition, the Secretariat provides the Council with annual draft work plans and spending plans, financial statements of common costs, objectives for the Head of the Secretariat, and Status of Actions reports from previous Council sessions.

Highlights of the activities accomplished<sup>10</sup> during the period 2006 to 2009 include:

- Preparation for and support of the Joint Committee meetings, Experts' Working Group meetings and Task Group meetings, including completion of follow-up actions;
- Preparation for and support of Council sessions, both closed and open meetings;
- Preparation and production of draft revisions and new issues of COSPAS-SARSAT System documents and the development of amendments to the program policy document as required by the Council;
- Support of COSPAS-SARSAT participants, administrations, manufacturers and laboratories on a number of technical and operational matters;
- Processing numerous beacon type approval test reports for new beacon models, or changes to type approved models and the provision of technical support to current and potential beacons manufacturers and laboratories;
- Support of the International Beacon Registration Database (IBRD), including the preparation of a contract for implementing a bulk upload capability and liaison with the IBRD host, users and administrations;
- Participation of Secretariat staff at a number of international meetings and liaison with national/international organizations;
- Responding to e-mail and telephone requests which addressed a variety of technical and operational aspects of the COSPAS-SARSAT system;
- Selection of a new information technology (IT) support company and the preparation for re-installing the local area network within the Secretariat;
- Issuing a request for proposals for upgrades to the COSPAS-SARSAT website, evaluating the proposals received and recommending a vendor to the Council;

<sup>10</sup> Report on COSPAS-SARSAT Secretariat Activities, November 2008 to October 2009; November 2007 to September 2008; November 2006 to September 2007.

- Preparation and production of 27 Program, Secretariat or System documents, including new documents and new issues or draft revisions of existing documents to remove references to the 121.5/243 MHz satellite processing and incorporating changes agreed to at the Joint Committee meeting; and
- Contracting out for a redesigned COSPAS-SARSAT website with new functionalities and migrating the existing web pages.

### Conference Services

Table 3 highlights the conference services<sup>11</sup> provided by the Secretariat for FYs 2006/07, 2007/08 and 2008/09:

Conference Service/Activity	2006/07	2007/08	2008/09
No. of meeting days supported by Secretariat	29	31	47
No. of days Data Distribution Region meetings	12	9	12
No. of participants	176	152	166
No. of delegations	41	38	40
No. of documents submitted—Joint Committee Meetings	141	156	175
No. of documents prepared by Secretariat	31	28	40
Topics of greatest interest	<ul style="list-style-type: none"> <li>• Beacons</li> <li>• IBRD</li> <li>• Operational matters</li> <li>• Ground segment matters</li> <li>• System evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Beacons</li> <li>• System assessment</li> <li>• Ground segment matters</li> </ul>	<ul style="list-style-type: none"> <li>• Operational matters</li> <li>• Changes to system documents</li> <li>• System assessment matters</li> <li>• Beacons</li> <li>• Ground segment matters</li> <li>• System evolution</li> </ul>

**Table 3. Conference Services and Activities for FYs 2006/07, 2007/08 and 2008/09.** Activities related to providing conference services and other pertinent information with regards to conferences held each year.

The Annual Reports prepared on COSPAS-SARSAT activities contained the following comments:

<sup>11</sup> Comments on COSPAS-SARSAT Meetings, Report on COSPAS-SARSAT Secretariat Activities, November 2008 to October 2009; November 2007 to September 2008; November 2006 to September 2007.

- Annual meetings are experiencing a sustained level of participation.
- There is a gradually increasing number of documents submitted for the meetings which indicates a steady growth of activity and raises concerns with respect to the efficiency and sustainability of the current format of Joint Committee meetings. This increase in number of documents may be attributed to the COSPAS-SARSAT satellite system frequency change, an increase in the number of meeting days supported by the Secretariat, or an increase in number of participants.
- The rule imposing deadlines for submissions of documents appears to have been generally accepted by the participants. In 2008/09, only 15 papers were recorded as “late papers” (less than 10 percent). However, the majority of documents submitted are still being received immediately before or after the deadline, which delays posting on the website.
- In addition to the quantity of documents submitted, the complexity of some of the issues raised in the documents adds to the challenge faced by participants and the Secretariat during Joint Committee meetings. The introduction of “Splinter Groups” has provided a partial solution for addressing complex technical or operational matters. However, the need for consensus in plenary sessions limits the actual relief that can be expected from the Splinter Group approach.

### **Administrative Services**

Administrative services include the processing of Secretariat correspondence with participants, administrations, manufacturers and users, including invoicing all parties and participants for their annual contribution towards the common costs of the program, issuing type approval certificates, maintaining records, and a comprehensive archiving/filing system for official documents. In 2007, the Secretariat developed contractual arrangements to outsource the procurement of technical support for the type approval review process of new 406 MHz beacon models. Since 2008 external support has been required for the processing of four new type approval applications.

Other administrative services include the purchase of IT equipment and the management of contracts with external service providers, including website redesign.

### **Budget, Accounting and Fund Management Services**

The Secretariat is responsible, under the direction of the Council, for all budget, accounting and fund management matters pertaining to the common costs of the Program. This includes:

- Invoicing participants;
- Accounting for all income and expenditures;
- Effecting payments and managing the Secretariat bank accounts to maximize interest earned on deposits;
- Preparing the annual audit of the Secretariat accounts;
- Recovering Canadian federal and provincial consumer taxes (GST, QST and insurance sales tax) on all purchases; and
- Preparing staff payroll, employer pension contribution payments, etc.



## COSPAS-SARSAT Documentation and Website

Table 4 shows the number of system documents, new documents and interim procedures<sup>12</sup> that were reviewed at Joint Committee meetings and submitted to Council for approval:

Type of Document	2006/07	2007/08	2008/09
System Documents	17	20	23
New Documents	0	0	2
Interim Procedures	0	0	2

**Table 4. COSPAS-SARSAT Documentation.** This table shows the type of documents produced for FYs 2006/07, 2007/08 and 2008/09.

In addition to the above, the Secretariat published:

- COSPAS-SARSAT System Data documents;
- Information Bulletins;
- Handbook on Distress Alerts;
- COSPAS-SARSAT Quality Manual; and
- COSPAS-SARSAT Strategic Plan.

Updates to the website contents, in three languages (English, French and Russian), have been performed to reflect the termination of 121.5/243 MHz satellite processing, the evolution of the Space and Ground segments of the System, and the addition of new or amended reports for type approved beacons. The redesign of the website to provide enhanced functionalities, as required by the COSPAS-SARSAT Quality Management System, was a major effort in 2009.

### Technical Services/Operational Matters

During the period of the Contribution, the Secretariat has been actively engaged in the provision of technical services. For example:

- Eight new beacon models have received a Type Approval Certificate or a Letter of Compatibility;
- Amendments to existing type approval certificates were approved;
- Topics related to beacon specification and type approval were addressed; and
- Coordination was actively pursued with manufacturers and test laboratories on associated matters.

A survey was conducted of all beacon manufacturers in 2009. The survey was used as the basis for updating the beacon population forecast. The number of registered 406 MHz beacons reported by 87 countries at the beginning of 2009 was about 528,000 (a 24.5-percent increase over the figure reported in 2008).

<sup>12</sup> COSPAS-SARSAT Documentation and Website, Report on COSPAS-SARSAT Secretariat Activities, 2006/07 to 2008/09.

New issues or revisions of major operational documents were produced to reflect evolving data distribution procedures, additions to the Ground Segment and the termination of 121.5/243 MHz processing. The Secretariat also produced annual System Status and Operations Reports based on information provided by the participants.

### International Liaison

In addition to supporting COSPAS-SARSAT meetings in Montreal or abroad, the Secretariat represented the Program at international meetings, seminars and conferences. Table 5 shows the number of these events attended by Secretariat staff:<sup>13</sup>

	2006/07	2007/08	2008/09
No. of meetings attended by Secretariat Staff	11	16	20

**Table 5. International Liaison.** This table shows meeting attendance for FYs 2006/07, 2007/08 and 2008/09.

The Secretariat liaised with a variety of related organizations including, among others:

- International Civil Aviation Organization (ICAO);
- International Maritime Organization (IMO);
- Radio Technical Commission for Maritime Services (RTCM);
- Radio Technical Commission for Aeronautics (RTCA);
- European Organization for Meteorological Satellite (EUMETSAT);
- European Telecommunications Standards Institute (ETSI); and
- European Organization for Civil Aviation Equipment (EUROCAE).

As evidenced by the above activities, the Secretariat has been successful in achieving its expected outcomes related to the provision of conference, administrative, technical and liaison services.

<sup>13</sup> International Liaison, Report on COSPAS-SARSAT Secretariat Activities, 2006/07 to 2008/09.

## Demonstration of Efficiency and Economy

Resources appear to be utilized efficiently and economically in the achievement of the functions listed in the Terms and Conditions.

The annual common cost or expenditure of the COSPAS-SARSAT Secretariat from 2006 to 2009 has been about \$2 million. Canada's contribution of \$190,000 per year is approximately 8.2 percent of the annual budget. During this interval, the Secretariat has been consistent with its expenditures and has accomplished its expected outcomes as per the forecasted annual spending plan.

The Secretariat staff currently includes nine individuals:

- 2 support staff (Executive Assistant and Conference Coordinator);
- IBRD Administrator;
- 4 Technical and Operations Officers;
- 1 Finance and Administration Officer; and
- Head of the Secretariat.

Highlights of a subjective assessment of the Secretariat conducted for the Council in 2009 are as follows:

- Since 1997, the complement of technical/operational officers and support staff has remained unchanged except for the recruitment of a Finance and Administration Officer in 1999 and an IBRD Administrator in 2007;
- The Secretariat began outsourcing some aspects of the type approval review process in 2007. Contracts are now in place for outsourcing technical support to ensure timely responses to manufacturers;
- Considering the demand for technical support activities and the prospect of MEOSAR system integration, staff resources appear to be light; and
- Although the current staffing is sufficient to meet most requirements, it does not afford any flexibility or margin.

## Comparison with Other International Organizations

A comparison of the COSPAS-SARSAT Secretariat with those of other international organizations was conducted as part of the Review of Current Activities, Trends and Possible Evolution of the Secretariat completed in April 2009. Overall the findings illustrate the uniqueness of the Secretariat:

- Most international organizations have strictly defined competencies of an administrative nature and do not support operational systems.
- Some are very large (International Telecommunications Union, IMO, ICAO) with hundreds of employees dedicated to supporting conferences where national representatives debate policies or coordinate technical matters in a specific domain.

- The role of these other Secretariats is always that of a conference Secretariat. None participate in the coordination of operational services. On the other hand, the COSPAS-SARSAT Secretariat has neither operational responsibilities, nor a mandate to audit the implementation of the System or its operation by participants. However, the COSPAS-SARSAT Secretariat is expected to provide technical or operational support and expertise regarding the system as well as administrative support to the COSPAS-SARSAT Council.

Overall, the Secretariat is effective and efficient in completing the required tasks and workload with fewer personnel than comparable organizations. Despite this, interviews indicated a concern that the COSPAS-SARSAT Secretariat has reached the point where more resources may be required to remain effective and efficient.

In terms of measuring results versus demands, the Secretariat should include measures of additional outsourcing and/or any overtime incurred in order to maintain the service required by the COSPAS-SARSAT Council. Trend information will allow for judgments to be made between short-term and ongoing demands and expenditures.

While the data provided in the [Performance](#) section shows the extent of the work done and indicates an increase in the amount of work completed, two issues are not clear. First, if any demands made by the Council of the Secretariat were unable to be met and second, if the increase in Secretariat workload was directly attributable to the change in beacon frequency and therefore isolated to an implementation period. The first of these concerns could be resolved through a measurement system that compares demands with results. The second will only be clear after the implementation of the new beacon system is complete.

### **Recommendation**

A Performance Measurement Strategy should be developed to ensure that Canada is receiving the services stated in the objectives of the Terms and Conditions.

**OPI:** NSS

### **Additional Benefits to Canada**

It is beneficial for Canada to have the Secretariat located in Montreal as the Secretariat's existence in Canada has created jobs for Canadians and contributed to the Canadian economy as well as supporting SAR services for Canadians.

Furthermore, being one of the ICSPA signatories has contributed to closer ties with the other three countries who are parties to the ICSPA.

## Conclusion

The COSPAS-SARSAT Secretariat continues to be relevant through its support of government priorities and departmental strategic outcomes, and through its alignment with federal responsibilities. There is evidence that the Program is both effective and efficient; however, it could benefit from improved performance information to allow future adaptation should the recently increasing workload continue to grow. As the COSPAS-SARSAT Secretariat is an international organization providing support to the activities of several federal departments, a Contribution Agreement managed by the NSS is the most appropriate funding source.

### Recommendation

The renewal of the COSPAS-SARSAT Contribution Program should be sought.

**OPI:** NSS



## Annex A—Management Action Plan

### CRS Recommendation

1. A Performance Measurement Strategy should be developed to ensure that Canada is receiving the services stated in the objectives of the Terms and Conditions.

### Management Action

The NSS has developed a Performance Measurement Strategy for the COSPAS-SARSAT Secretariat Contribution Program to ensure that Canada is receiving the services stated in the Terms and Conditions.

**OPI:** NSS

**Target Date:** Fall 2010

---

### CRS Recommendation

2. The renewal of the COSPAS-SARSAT Secretariat Contribution program should be sought.

### Management Action

The NSS will be seeking the renewal of the COSPAS-SARSAT Secretariat Contribution Program.

**OPI:** NSS

**Target Date:** Fall 2010