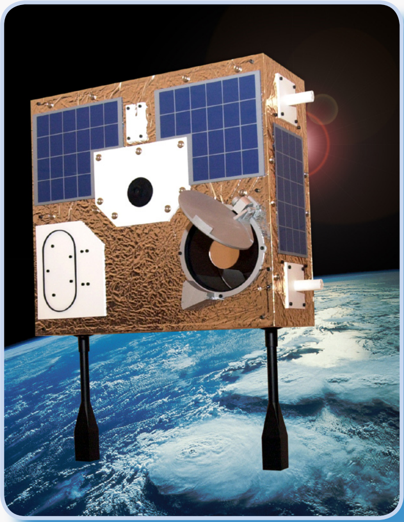
Canadian Space Agency
Agence spatiale canadienne

STATE OF THE CANADIAN SPACE SECTOR 2008

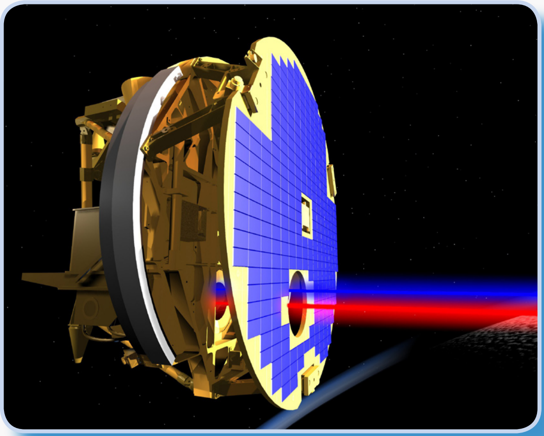
Policy and External Relations

Canada



Credit: CSA

MOST Space Telescope



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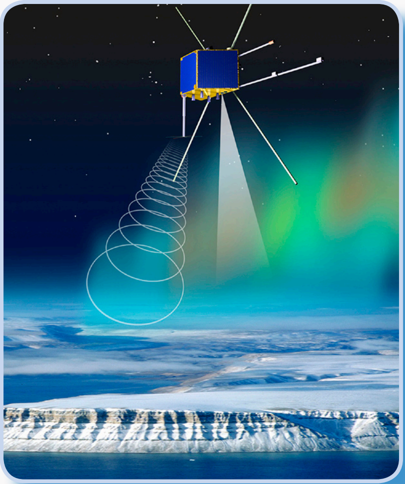
SCISAT



Credit: CSA

CASSIOPE

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Note to readers: The Annual Survey of the Canadian space sector has been undertaken since 1996. Comparative analyses of trends across time typically examine a 5-year period. Consequently, in this edition comparison and changes are reported for the 2004 to 2008 period. Readers should consult previous editions for information regarding results prior to 2004. *Ce document est également disponible en français.*

Cover: DEXTRE, June 2008, Credit: NASA

MISSION STATEMENT

About the Authors

The Policy & External Relations Directorate (PER) has prime responsibility for leading the development and implementation of space policies. PER also manages the strategic relationships between the Canadian Space Agency (CSA) and its domestic and international partners. Key mandates include the development and implementation of strategies relating to co-operation partnerships with domestic stakeholders (Federal and Provincial governments, industry and academia), international agencies and foreign industries. PER also plays a pivotal role in supporting the commercial initiatives of Canadian space companies in world markets - a core mandate of the CSA - and in providing stakeholders with strategic and timely information.

About this Report

The ***State of the Canadian Space Sector*** report provides those working in the space sector, government and industry alike, with insight into the sector in which we operate. In turn, this information supports decision-makers in their endeavor to make informed and strategic choices for the future.

Since 1996, the CSA annual survey, has been tracking the performance of the Canadian space sector. The CSA's Policy and External Relations Directorate, has had the prime responsibility in managing this annual survey.

The strong data set is a solid source of longitudinal data on many indicators of performance. The questionnaire follows a census model and reaches out to approximately 200 organizations involved in space activities across Canada. The participants include small to medium enterprises, to multinational space companies, not-for-profits, research centers, and universities across Canada.

The results for the operating calendar year 2008 are based on a **71% response rate**.

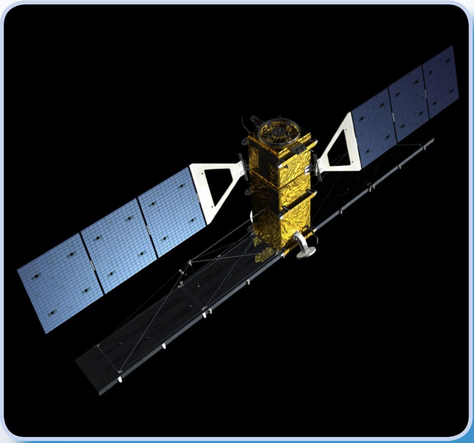
For the first time, this year's report will provide a special ten-year trend analysis, as well an inflation-adjusted summary of Canada's overall space-related revenues, dating back to 1996.

For more information

Information specific to Canadian space business and industry, including an electronic version of this report, is found at the following address: www.asc-csa.gc.ca (Industry ➢ Publications ➢ External relations).

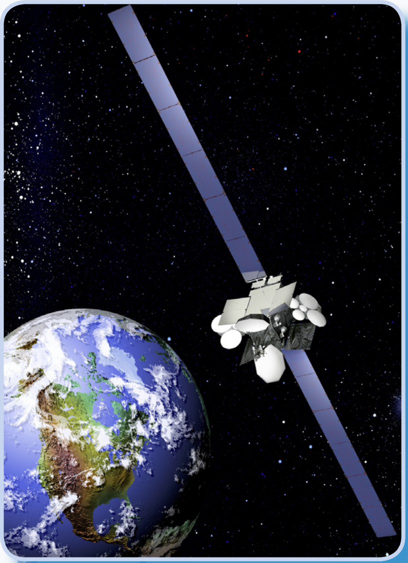
Acknowledgments

The CSA wishes to acknowledge the contribution of the organizations, both public and private, without which this report would simply not have been possible.


Credit: CSA

RADARSAT-2

"To promote the peaceful use and development of space."


Credit: Boeing

ANIK F2

MESSAGE FROM THE PRESIDENT

I am pleased to take this opportunity to present the CSA's annual report, ***The State of the Canadian Space Sector 2008***. The Canadian space sector played an important role in the Canadian national economy in 2008 by employing over 6,500 people and increasing revenues to $2.8 billion, with domestic and export revenues representing 50%-50% of total revenues respectively.

The 2008 survey results of the Canadian space sector showed real growth in revenues. Despite a high Canadian dollar, export-oriented space companies continued to penetrate foreign markets and demonstrate the commercial value of space.

2008 was a year marked with success for the Canadian space sector, where commendable accomplishments were only possible through the collaboration between the CSA and the Canadian space sector. Amongst these accomplishments, the successful commencement of Canada's meteorological station mission which was carried to Mars on NASA's Phoenix Mars Lander; Dextre, Canada's advanced two-armed robot began performing crucial tasks on the International Space Station; the fifth anniversary of the SCISAT satellite which continues to provide high-precision information on the condition of the ozone layer and atmospheric changes, and also the first image for a time series of satellite maps of Earth's Arctic was produced as part of Canada's contributions to International Polar Year activities.

On the international front, our partnerships with NASA and ESA continue to strengthen. Several scout missions to other space-faring nations for the assessment of both commercial opportunities and government partnerships have taken place in 2008. The Canadian Space Agency is constantly working to establish agreements with other stakeholders that maximize investment and maintain Canada's reputation in the burgeoning international space arena.

I would like to thank everyone who participated in this annual survey. Without your assistance this report would not be possible.

Sincerely,

Steve MacLean

Dr. Steve MacLean
President

EXECUTIVE SUMMARY

- In 2008, the Canadian space sector generated **total revenues** of **$2.794B**, reflecting a 17.8% increase over revenues reported in 2007;

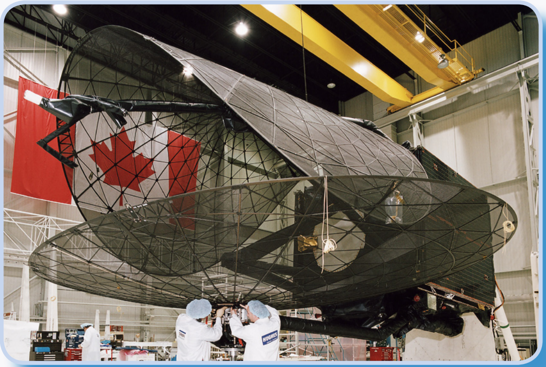
- **Domestic revenues** reached **$1.389B**, increasing by 0.7% or, $9M. Domestic revenues represented 50% of total revenues, the majority of which were derived from private sources (81% private sources/ 19% public sources);

- **Export revenues** reached an all time high of **$1.405B** increasing by 41.5% or, $412M, driving overall growth. Export revenues represent 50% of total revenues, a ratio last observed in 2005;

- Over the past five years, **total domestic revenues** increased 12.4% and **total export revenues** increased by 16.3%. Total revenues during the last five years have increased by 14.4%;

- The Canadian space **workforce** rebounded by 4% following a three year decline, adding 261 new positions across the country. The total space sector workforce reached 6,742 people in 2008. Highly Qualified Personnel (HQP) referring to scientists, engineers and technicians, increased by 3.1% (or, an increase of 116 HQP) to a total of 3,242 space sector HQP;

- Of the four surveyed space sector of activities, **Satellite Communications** reached $2B in revenues; **Navigation** grew to $254M; **Earth Observation** reached $200M; **Robotics** increased to $110M; **Space Sciences** decreased to $68M;


Credit: CSA

MSAT


Credit: NASA

Hurricane Helene

- Of the space categories surveyed, results indicate growth in all except Space Research. **Space Segment** revenues increased to $508M, as well as **Ground Segment** which reached $335M. **Applications and Services** continued to grow, reaching just under $2B, and **Space Research** fell to $24M;

- **The top ten** highest earning space companies have all shown real growth ranging from 12% to 48%;

- Revenues derived from **manufacturing** have been growing steadily since 2004, reaching a five-year high in 2008 of $996M;

- **Space Research & Development expenditures** totalled $56.4M in 2008, with 60 organizations currently undertaking space R & D projects;

- **Defence** related revenues totalled $109M representing 3.9% of total revenues. Of the $109M defence related revenues, $85M represents defence related exports, while $24M are defence related domestic revenues;

EXECUTIVE SUMMARY

Export Revenues 2008 can be summarized as follows

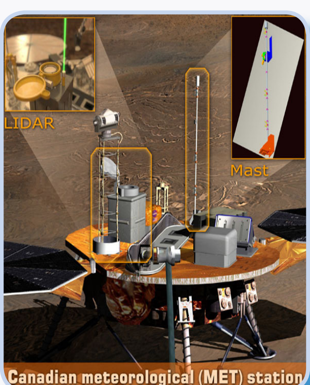
- The strongest performing export markets for Canada's space organizations continue to be the U.S. and Europe, followed by Asia.

Of the $1.405 B in total exports:

- The U.S. market represented 52%, or $733M;
- The European market represented 28%, or $399M;
- The Asian market represented 11%, or $150M;
- The South American market represented 3.7%, or $52M ;
- Oceania represented 3.6%, or $51M;
- Africa represented less than 1%, or $11M.
- Other markets represented less than 1%, or $9M

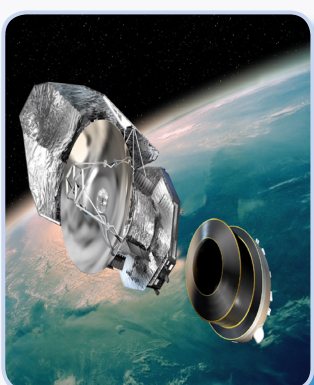
Regional- Based Space Revenues can be summarized as follows

- The proportional share of each region has not changed significantly over the last several years:
  - British Columbia represented 5.4% ($151M) of total revenues
  - The Prairies continued to increase their share, representing 8.4% ($234M) of total revenues
  - Ontario's proportional share decreased minimally to 72.8% ($2.035B) of total revenues
  - Quebec increased nominally to 6.2% ($172M) of total revenues
  - Atlantic Canada's proportional share remains the same at 7.2% ($202M)



Credit: CSA

Phoenix Mars Lander


Credit: ESA

Herschel Separation


Credit: CSA

Mobile Servicing System (MSS)


Credit: NASA

James Webb Space Telescope

OVERVIEW OF THE REPORT

In order to measure the changes taking place in Canada's space sector, the CSA undertakes an annual survey and publishes the results in the State of the Canadian Space Sector report. The 2008 edition profiles the sector over the course of January 1 to December 31, 2008. Data is provided in the following areas:

- Overall space revenues;
- Domestic v. export revenues;
- Revenues of Canada's Top 30 organizations developing and/or using space to generate revenues;
- Revenues by sectors of activity (Satellite Communications, Robotics, Earth Observation, Space Science, and Satellite Navigation);
- Revenues by space categories (Space Segment, Ground Segment, Applications and Services, and Space Research);
- Regional Revenues (British Columbia, Prairies, Ontario, Quebec and Atlantic Canada);
- Workforce characteristics.

Methodology

Questionnaires were sent to over 200 private sector companies, research organizations and universities in Canada who have a defined strategic interest in the space industry.

It is important to note that the company-specific information used to compile this report remains strictly confidential and cannot be released in a manner other than in an aggregate form[1]. Consequently, in certain circumstances, the authors are prevented from providing a more detailed explanation or in-depth analysis of the results.

Respondents are asked to categorize their space activities according to the following definitions:

DEFINITION OF CANADA'S SPACE SECTOR

The Canadian space sector is defined as organizations (private, public and academic) whose activities rely on the development and use of space assets and/or space data

Space Segment: Research and Development (R&D), manufacturing, testing, integration and launch of platforms (satellites, spacecraft and robotic systems), complete systems, subsystems and components

Ground Segment: R&D, manufacturing, testing, and integration of facilities on Earth for controlling space-based systems and satellites, for linking satellites to operational terrestrial networks and for processing satellite-derived data

Applications and Services: Development and/or provision of services and value-added products and technologies that are derived from the use of space systems and/or data, and the provision of consulting and engineering services

Fundamental Space Research: Primarily research related to non-commercial or pre-commercial space activities

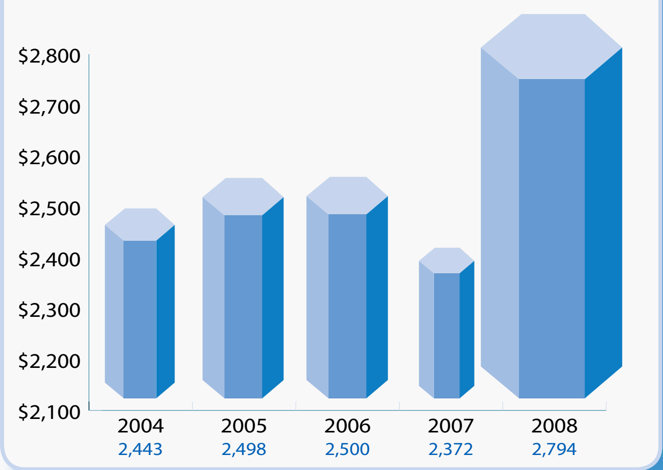
1 *CSA acknowledges a margin of error in the final results of approximately 2.5%.*

RESULTS

Overall Revenues

In 2008, total revenues for the Canadian space sector reached an all-time high of **$2.794B**, a 17.8% increase ($422M) over revenues in 2007. Growth in 2008 was driven by export revenues which accounted for $412M of the $422M increase.

Over the last five years, total revenues generated by the Canadian space sector have increased by 14.4%.



Total Space Revenues: 2004-2008 (C$m)

Domestic vs Export Revenues

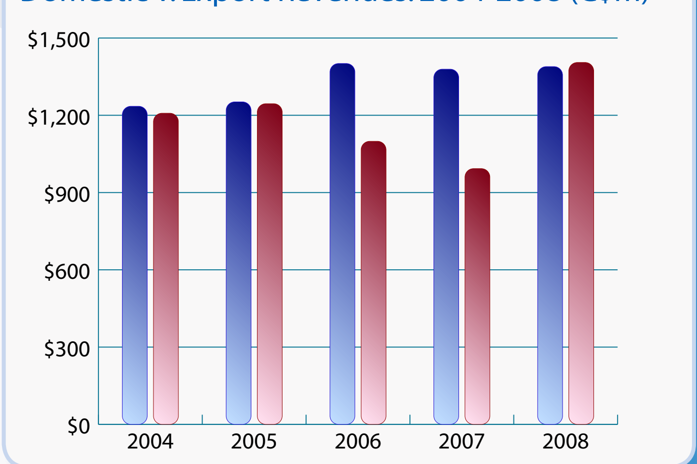
Domestic revenues increased minimally to $1.389B, an increase of 0.7% over 2007.

Export revenues grew by 41.5% and reached an all time high of $1.405B.

Export revenues and domestic represent 50% / 50% split of total revenues, a ratio last observed in 2005.

Over the past 5 years, total export revenues have increased by 16.3% (from $1.208B in 2004 to $1.405B in 2008).

Total domestic revenues have increased by 12.4% (from $1.235B in 2004 to $1.389B in 2008).



Domestic v. Export Revenues: 2004-2008 (C$m)

	2004	2005	2006	2007	2008
Domestic	1,235	1,252	1,401	1,379	1,389
Export	1,208	1,245	1,099	993	1,405

RESULTS

Domestic Revenues

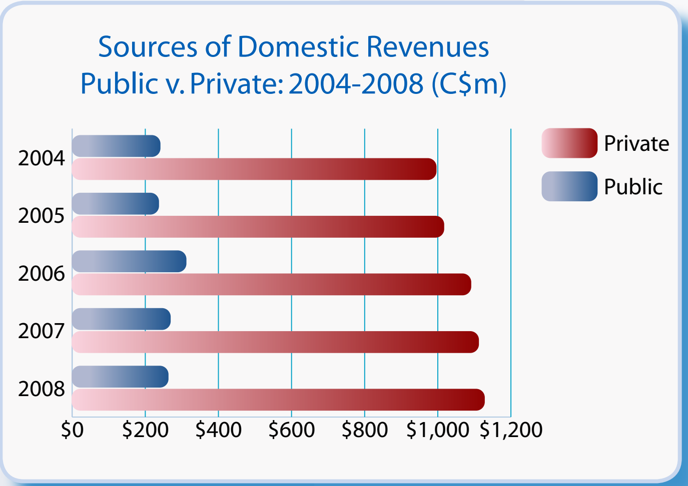
Respondents are asked to identify the source of their domestic revenues as either being derived from public (government) or private (non-government) sources.

In 2008, the majority of space sector revenues were derived from private sources, weighted by satellite communications.

In 2008, domestic revenues from government sources fell 2.2% (from $268M to $262M).

Private sources of revenue increased 1.4% (from $1.111B to $1.127B).

The overall share of private/public derived sources of domestic revenues yielded a ratio of 81%/19%.



	2004	2005	2006	2007	2008
Public	240	236	311	268	262
Private	995	1,016	1,090	1,111	1,127

Revenues Of Canada's Leading Space Organizations

In 2008, 98.3% of total space revenues were accounted for by the activity of the top 30 Canadian organizations, a constant pattern found in previous survey results.

45 organizations reported revenues in excess of $1M during 2008, compared with 44 reported in 2007.

Export Revenues

Despite a high Canadian dollar, Canada's export-oriented space organizations have performed well in foreign markets. After two years of decreasing exports, they have rebounded in 2008 and grew 41.5%, reaching an all time high of $1.405B since reporting began. The top ten earning space organizations have all shown growth in exports. Although this top earning group drove most of the growth in export, an increased number of organizations, including universities, are accessing foreign markets and institutions for business and research grants. As a result, exports represent 50% of total space revenues, reversing the downward trend.

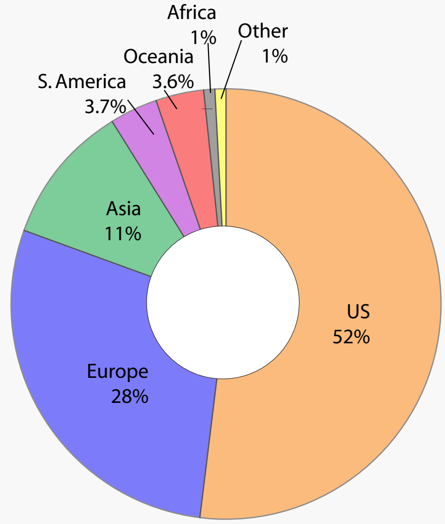
RESULTS

Export Revenues cont.

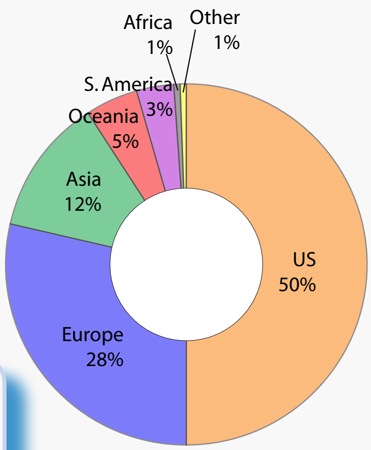
The United States remains the largest market for Canadian space exports, accounting for 52% (or, $733M) of the $1.405B of total exports. Europe remains second overall, accounting for 28% of (or, $399M) of total exports.

- The U.S. is the source of export revenue that significantly grew. Export revenues derived from the U.S. increased by 47% (from $499M to $733M). This is highest point reached for export revenues from the US since the beginning of data collection.
- After a three year decline, export revenues derived from Europe rebounded 41% (from $283M in 2007 to $399M in 2008), returning to 2005 levels.
- Although export revenues experienced a dip from the Asian market last year, they rebounded 25% in 2008 (from $120M to $150M). The Asian market accounted for 11% of total exports.
- Export revenues from Oceania increased by 6% (from $48M to $51M). Oceania represented 3.6% of total export revenues.
- Export revenues from South America increased by 63 % (from $32M to $52M), and accounted for 3.7% of total exports.
- Export revenues from Africa increased by 83% (from $6M to $11M). The African market continued to represent less than 1% of total export revenues.

Proportion of Export Revenues

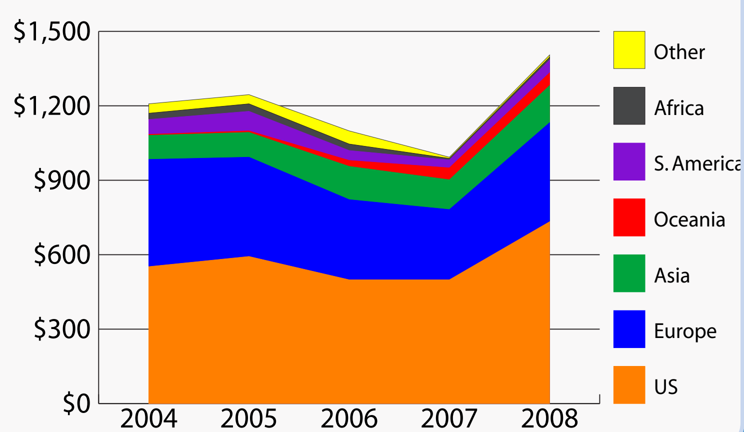


2008



2007

Sources of Export Revenues: 2004-2008 (C$m)



Figures available on Ten Year Trend page 19

REVENUES

Revenues by Space Categories

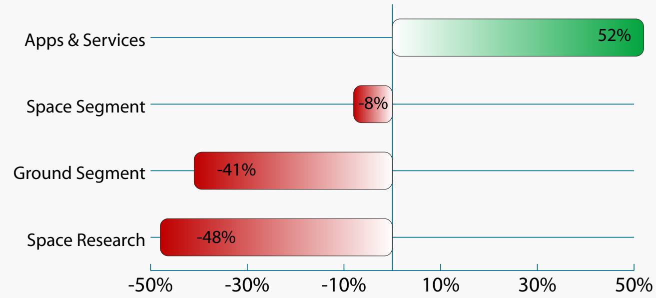
Space Segment: Revenues increased 13%, or by $59M in 2008, from $449M to $508M. In 2008, space segment revenues represented 18% of total space sector revenues.

Ground Segment: Revenues increased 15%, or by $44M, from $291M to $335M. In 2008, ground segment revenues represented 12% of total space revenues.

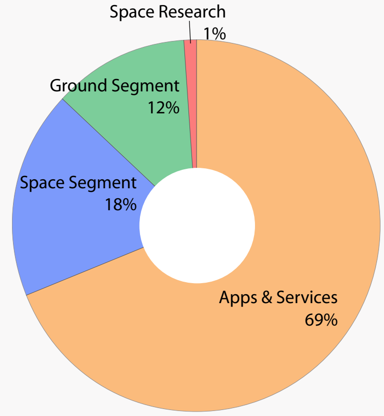
Applications and Services: Revenues continued to grow in 2008 to just under $2B. A growth of 20%, or by $323M, from $1.604B to $1.927B was reported in 2008. Applications and Services continued to represent the majority (69%) of total space sector revenues.

Space Research: Since 2005, revenues from space research have been declining, and in 2008, revenues further decreased 17%, or by $5M, from $29M to $24M. Space research represented 1% of total space sector revenues in 2008.

Percentage Change of Revenues by Space Categories over the last 5 years (2004-2008)



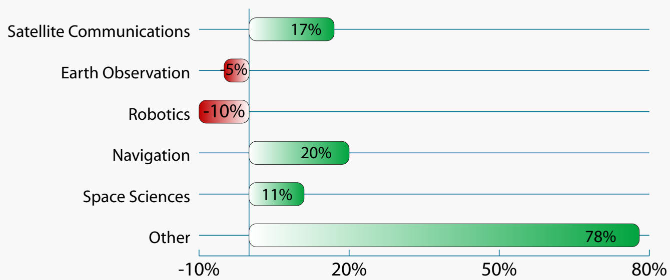
Proportion of Revenues by Space Categories: 2008



Revenues by Sectors of Activity

In 2008, almost all sectors of activity grew, except for Space Sciences. Most noteworthy, Satellite Communications and Navigation have both reached the highest point in ten years. The growth in both Satellite Communications and Navigation came from Applications and Services. Earth observation partially recovered from a sharp decline in 2007, but still fell short of its $269M peak in 2006. Space Sciences have been gradually growing but the 2008 drop brought it back to 2004 levels.

Percentage Change of Revenues by Space Sector of Activity over the last 5 years (2004-2008)



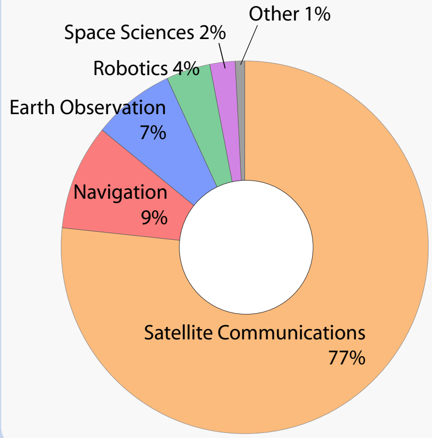
REVENUES

Revenues by Sectors of Activity cont.

Earth Observation: In 2008, revenues from Earth Observation reached $200M, rebounding 19%, or by $32M. Earth Observation revenues represented 7% of total space sector revenues. Over the last 5 years, revenues from this sector have decreased 5%.

Robotics: Revenues from Robotics increased 7%, or by $7M, from $103M to $110M, representing 4% of total space sector revenues. Since 2004, revenues from this sector have experienced a decrease of 10%.

Proportion of Revenues by Space Activity: 2008



Satellite Communications: This sector activity is the most commercial sector of activity in the Canadian space sector. It is a sector that is in its mature stage and therefore bears strong commercial value. In 2008, satellite communications reached the $2 Billion mark. Revenues increased 17%, or by $314M, from $1.832B to $2.146B. The satellite communications sector represented 77% of total space sector revenues in 2008.

Of the $2.146B in Satellite Communications, $1.623B (76%) was derived from activities in Applications and Services. Of the remaining 24%, the breakdown is as follows:

- $295M is generated from Ground Segment activities;
- $224M is generated from Space Segment activities;
- $4M is generated from Space Research activities;

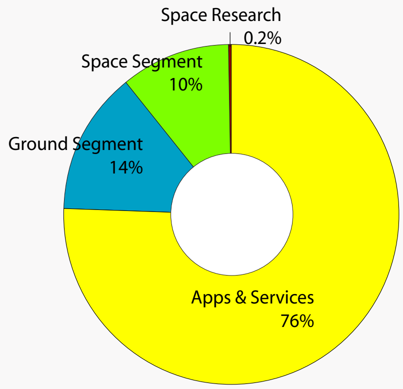
Over the last 5 years, satellite communications revenues increased 17%.

Navigation: Revenues from navigation have increased 64%, or by $99M, from $155M to $254M, representing 9% of total space sector revenues. Over the last five years, navigation increased 20%.

Space Sciences: Revenues from space sciences have decreased 33%, or by $34M, from $102M to $68M, representing 2% of total space sector revenues. Nonetheless, since 2004, revenues from this sector have increased 11%.

Other: Revenues from this sector have grown 23%, or by $3M, from $13M to $16M and represented 0.5% of total space sector revenues. Over the last five years, revenues from other activities have increased 78%.

Breakdown of Satellite Communications Revenues: 2008



REVENUES

Revenues by Region

British Columbia: In 2008, British Columbia's revenues totalled $151M reflecting an increase of 9% ($138M). British Columbia's revenues represented 5.4% of total revenues for the entire space sector.

The majority of British Columbia's space revenues in 2008 were generated from export markets, $94M, while $57M came from domestic revenues. Domestic revenues dropped 24% between 2007 and 2008 (from $75M to $57M) while export revenues increased 49%, (from $63M to $94M).

Between 2004 and 2008, B.C.'s domestic revenues have increased 12% (from $51M to $57M) while export revenues have decreased 18% (from $114M to $94M). Over the last five years, British Columbia's total revenues have dropped 8% (from $165M to $151M).

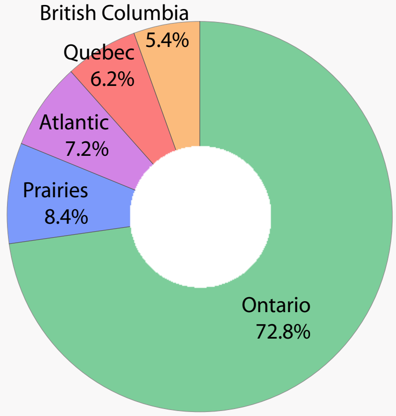
Prairies: Total revenues for the Prairie region (Alberta, Saskatchewan, and Manitoba) increased 71%, reaching $234M in 2008. The Prairie region generated 8.4% of total space sector revenues, reflecting an increase in the total space sector's proportional share. In 2008:

- Alberta's total revenues doubled from $96M to $192M;
- Manitoba, for a third consecutive year, experienced a loss in total revenues, from $8M to $5M;
- Saskatchewan increased total revenues by $4M, reaching $37M.

Throughout 2008 Canada's Prairie region continued to derive the majority of its revenues from exports, which increased 66%, from $113M in 2007, to $188M in 2008. Domestic revenues also increased significantly, by 92%, from $24M in 2007, to $46M in 2008.

Between 2004 and 2008, domestic revenues from the Prairies have doubled (from $23M to $46M), while export revenues have more than doubled (from $88M to $188M).

Regional Proportion of Total Revenues: 2008



Ontario: Total revenues for Ontario continued to generate the majority of total space sector revenues in 2008, accounting for 72.8% of all revenues, and totalling $2.035B. Revenues in Ontario grew 13% in 2008 (or, by $231M).

Export revenues in Ontario increased 41% (from $586M to $829M) and Ontario remains the strongest exporting region in Canada.

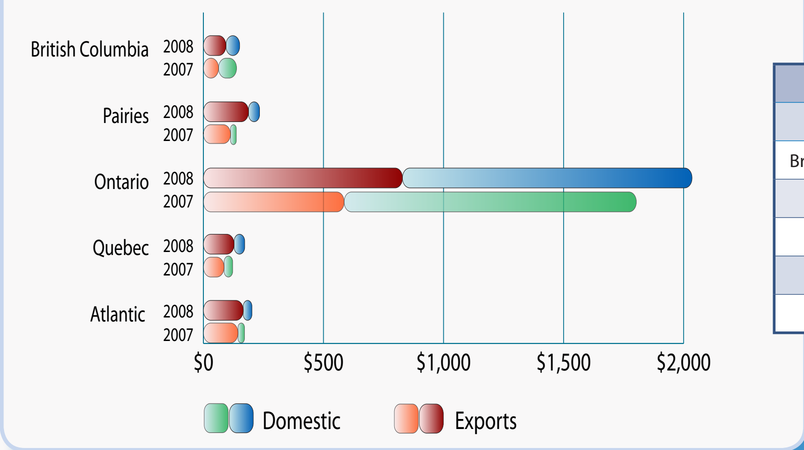
Domestic revenues in Ontario experienced a minor drop of less than 1% (from $1.217B to $1.206B).

Over a five-year period, domestic revenues in Ontario have increased 20% (from $1.007B to $1.206B), and export revenues have grown 78% (from $466M to $829M). Overall revenues have therefore increased by 38% (from $1.473B to $2.035B).

Quebec: During 2008, Quebec's overall space revenues rebounded 40% (from $123M to $172M) and represented 6.2% of total revenues. This reversed a downward trend Quebec was experiencing for the last three consecutive years.

REVENUES

Revenues by Region cont.



Domestic v. Exports Revenues by Region

	2007		2008	
	Exports	Domestic	Exports	Domestic
British Columbia	63	75	94	57
Prairies	113	24	188	46
Ontario	586	1,217	829	1,206
Quebec	86	36	128	44
Atlantic	144	27	166	36

Quebec's rebound was largely accounted by exports. Export revenues in Quebec increased 49%, (from $86M to $128M) while domestic revenues in Quebec increased 22% (from $36M to $44M).

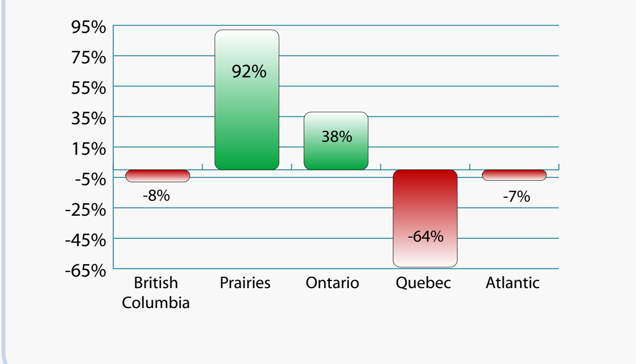
Over a five-year period, export revenues have decreased by 63% (from $344M to $128M), domestic revenues have decreased by 67% (from $133M to $44M). Since 2004, Quebec's total revenues decreased 64% (from $477M to $172M).

Atlantic Canada (New Brunswick, Newfoundland, Nova Scotia, PEI):

In 2008, revenues in Atlantic Canada also rebounded 18%, (from $171M to $202M), reversing a three year decline. Atlantic Canada represented 7.2% of total space revenues.

Export revenues in this region grew 15% (from $144M to $166M), while domestic revenues indicated a gain of 33% (from $27M to $36M).

Between 2004 and 2008, export revenues have fallen 15% (or, from $195M to $166M), while domestic revenues increased 64% (from $22M to $36M). Total revenues have dropped 7% (from $217M to $202M).

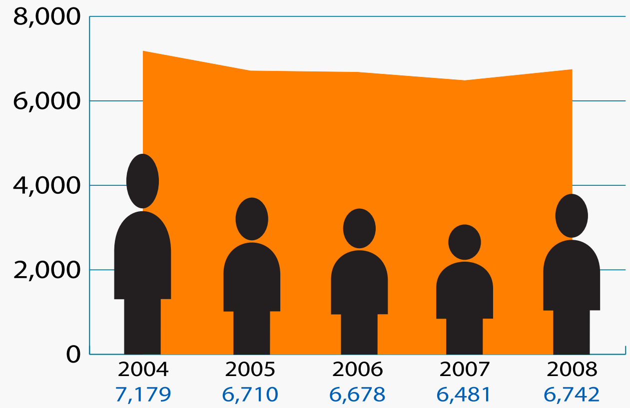


Percentage Change of Total Revenues by Region over the last 5 years (2004-2008)

SPACE SECTOR WORKFORCE

In 2008, the Canadian space sector workforce rebounded 4% after a three year decline, adding 261 positions across Canada, attaining a total of 6,742 employees.

Workforce (2004-2008)



Workforce Groups

Engineers and Scientists continued to comprise the largest category of employment in 2008, employing 2,189 workers, or 32% of the total space sector workforce.

The employment categories of, ***Management, Technicians, Administration, and Others***, also increased the number of positions, while ***Marketing and Sales*** remained relatively constant. The following charts and graphs provide a breakdown of the workforce by space employment categories and the distribution of employment groups working in the Canadian space sector in 2008.

Workforce Groups by Region: 2008

	Management	Engineers & Scientists	Technicians	Marketing and Sales	Administration	Others	TOTAL
B.C.	26	183	66	15	14	10	314
Prairies	31	285	145	17	60	18	556
Ontario	457	1,127	693	278	1,550	574	4,679
Quebec	109	575	85	19	99	2	829
Atlantic	17	79	64	24	176	4	364
TOTAL	640	2,189	1,053	353	1,899	608	**6,742**

Workforce Groups by Region

British Columbia represented 4.6% (or, 314 people) of Canada's space workforce in 2008, an increase of 3.3% from 2007, (or, 10 employees).

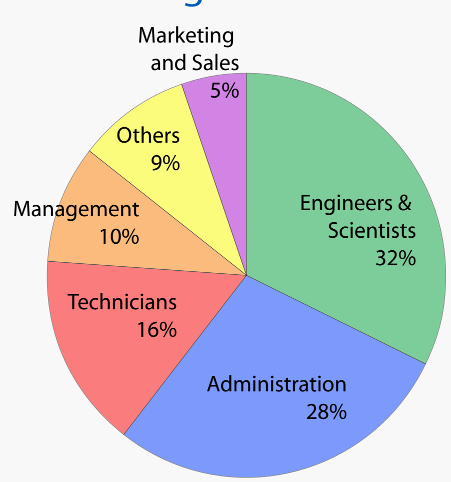
The Prairies represented 8.3% (or, 556 people) of Canada's space workforce in 2008, an increase of 33.5% from 2007, (or, 139 employees).

Ontario represented 69.4% (or, 4,679 people) of Canada's space workforce in 2008, an increase of 0.7 % from 2007, (or, 35 employees).

Quebec represented 12.3 % (or, 829 people) of Canada's space workforce in 2008, an increase of 0.6 % from 2007, (or, 5 employees).

Atlantic Canada represented 5.4 % (or, 364 people) of Canada's space workforce in 2008, an increase of 24.5 % from 2007, (or, 72 employees).

Workforce by Space Employment Categories: 2008

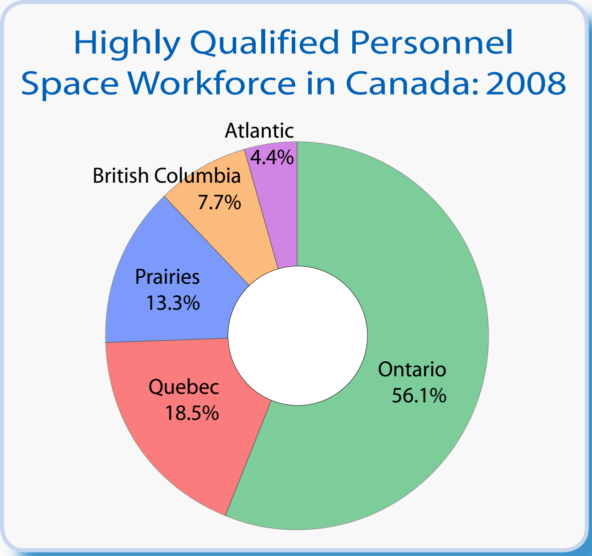


SPACE SECTOR WORKFORCE

HIGHLY QUALIFIED PERSONNEL (HQP)

The following table reports the percentage of Highly Qualified Personnel (HQP) in relation to each Canadian region, and relative to the national workforce. HQP measurement consists of tracking an approximate number of employed engineers, scientists and technicians in the Canadian space sector. In 2008, HQP in the Canadian space workforce reached 3,242.

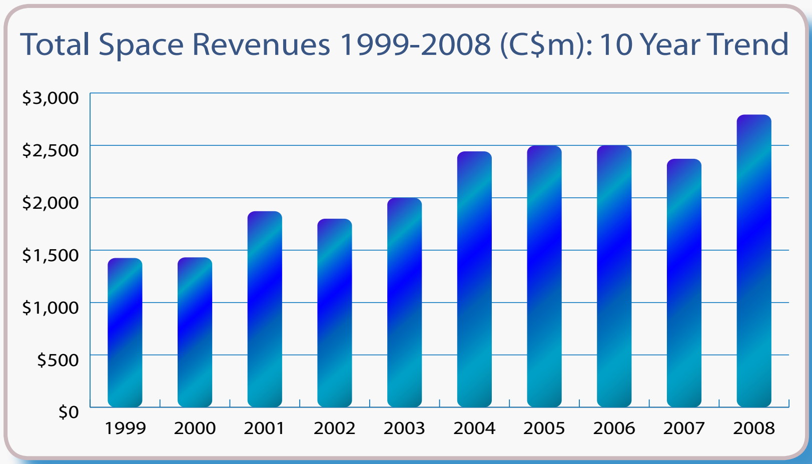
- 7.7% of Canada's total space sector HQP work in **B.C.** while 79% of B.C.'s space sector workforce are HQP;
- 13.3% of Canada's total space sector HQP work in the Prairies while 77% of the **Prairies** space sector workforce are HQP;
- 56.1% of Canada's total space sector HQP work in **Ontario** while 39% of Ontario's space sector workforce are HQP;
- 18.5% of Canada's total "Space Sector HQP" work in **Quebec** while 72% of Quebec's space sector workforce are HQP;
- 4.4% of Canada's total space sector HQP work in **Atlantic Canada** while 39% of Atlantic Canada's space sector workforce are HQP;



Highly Qualified Personnel (HQP) : Engineers, Scientists and Technicians						
	Total revenues by region (C$m)	Proportional Share of total revenue	Total n of workforce	Total n of HQP	% of HQP relative to its own provincial workforce	% of HQP relative to national HQP workforce
B.C.	$151M	5.4%	314	249	79%	7.7%
Prairies	$234M	8.4%	556	430	77%	13.3%
Ontario	$2.035B	72.8%	4,679	1,820	39%	56.1%
Quebec	$172M	6.2%	829	600	72%	18.5%
Atlantic	$202M	7.2%	364	143	39%	4.4%

TEN YEAR TREND: 1999-2008

Overall Results : 1999-2008*



Year	Overall Revenues	Domestic Revenues		Export Revenues		Workforce
	(C$)	(C$)	%	(C$)	%	n
2008	*2,793,722,219*	*1,388,532,603*	*50*	*1,405,189,616*	*50*	*6,742*
2007	2,372,145,807	1,379,400,092	58	992,745,715	42	6,481
2006	2,500,364,235	1,400,914,765	56	1,099,449,470	44	6,678
2005	2,497,711,781	1,252,251,094	50	1,245,460,687	50	6,710
2004	2,442,685,155	1,234,981,072	51	1,207,704,083	49	7,179
2003	1,999,433,240	1,201,312,758	60	798,120,482	40	6,122
2002	1,800,139,269	1,072,633,400	60	727,505,869	40	5,789
2001	1,871,511,842	1,077,212,382	58	794,299,460	42	6,275
2000	1,430,941,403	774,729,039	54	656,212,364	46	5,950
1999	1,425,498,040	854,697,263	60	570,800,777	40	6,408

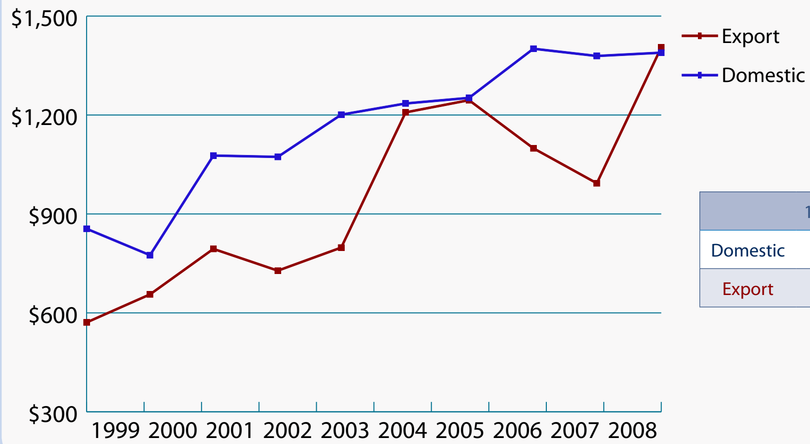
** This chart reflects values not inflation-adjusted.*

INFLATION ADJUSTED REVENUES : 1999-2008

Year	Overall Revenues	Domestic Revenues	Export Revenues
	(C$)	(C$)	(C$)
2008	*2,793,722,219*	*1,388,532,603*	*1,405,189,616*
2007	2,427,460,418	1,411,565,475	1,015,894,942
2006	2,614,954,713	1,465,118,008	1,149,836,705
2005	2,663,447,796	1,335,344,391	1,328,103,405
2004	2,661,990,221	1,345,858,074	1,316,132,145
2003	2,219,215,298	1,333,363,673	885,851,624
2002	2,053,958,905	1,223,874,709	830,084,196
2001	2,183,430,482	1,256,747,778	926,682,703
2000	1,711,429,916	926,588,923	784,840,992
1999	1,750,800,068	1,049,741,202	701,058,866

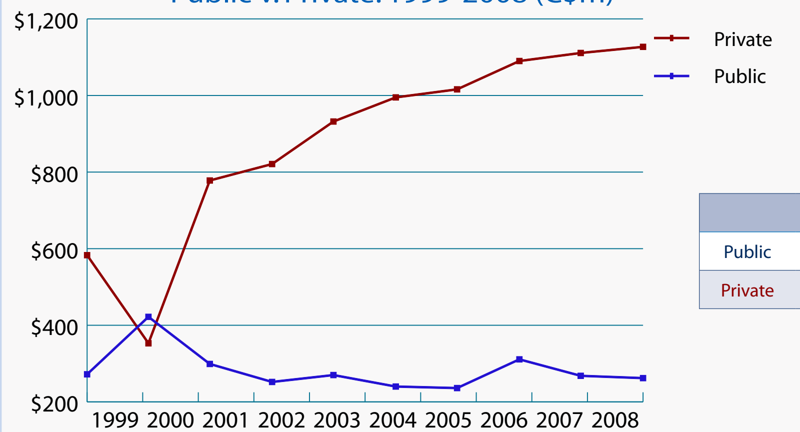
TEN YEAR TREND: 1999-2008

Domestic v. Export Revenues: 1999-2008 (C$m)



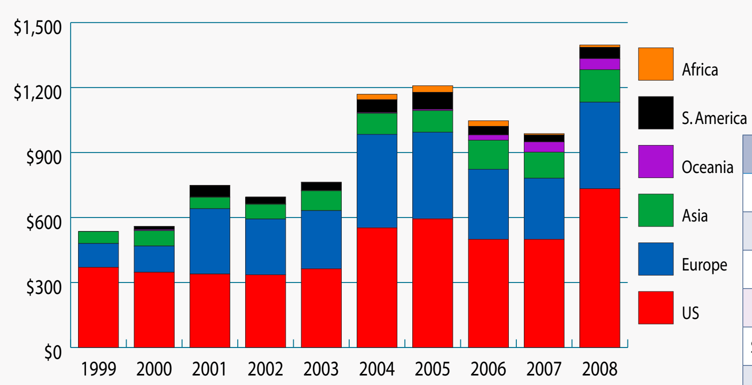
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Domestic	855	775	1,077	1,073	1,201	1,235	1,252	1,401	1,379	1,389
Export	571	656	794	728	798	1,208	1,245	1,099	993	1,405

Sources of Domestic Revenues Public v. Private: 1999-2008 (C$m)



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Public	272	422	299	252	270	240	236	311	268	262
Private	583	353	778	821	932	995	1,016	1,090	1,111	1,127

Sources of Export Revenues: 1999-2008 (C$m)

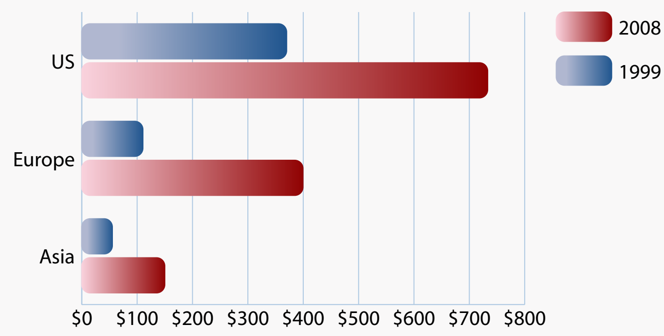


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
US	370	348	339	336	363	552	593	499	499	733
Europe	110	121	302	258	269	432	401	323	283	399
Asia	55	71	53	68	91	97	100	134	120	150
Oceania	0	5	2	2	2	4	6	24	48	51
S. America	0	13	52	31	37	60	79	40	32	52
Africa	0	2	0	0	1	25	30	26	6	11
Other	35	97	46	33	35	38	37	53	5	9

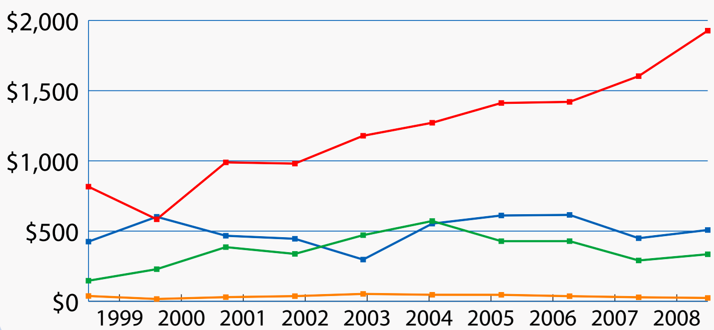
TEN YEAR TREND: 1999-2008

	1999	2008
US	370	733
Europe	110	399
Asia	55	150

Sources of Export Revenues: 1999-2008 (C$m)

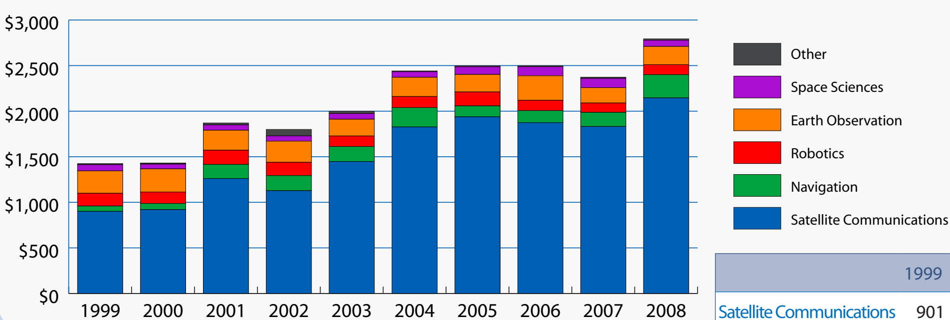


Total Revenues by Space Category: 1999-2008 (C$m)



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Space Segment	425	602	467	445	297	553	611	615	449	508
Ground Segment	147	229	386	338	471	572	428	428	291	335
Applications and Services	816	584	989	981	1,179	1,271	1,412	1,420	1,604	1,927
Space Research	38	16	30	37	53	46	46	37	29	24

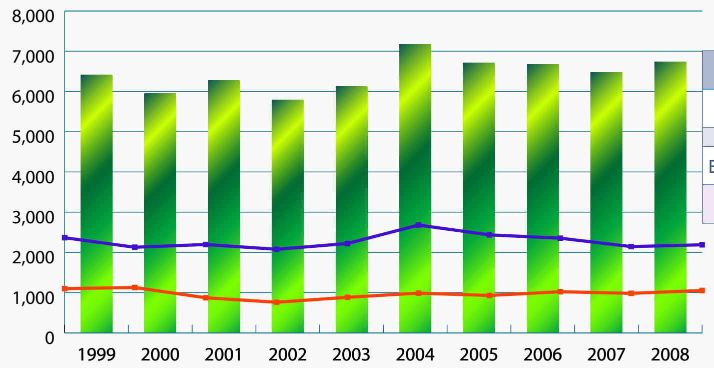
Revenues by Sectors of Activity: 1999-2008 (C$m)



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Satellite Communications	901	920	1,261	1,128	1,447	1,827	1,938	1,874	1,832	2,146
Navigation	58	67	155	165	165	212	120	132	155	254
Robotics	140	126	156	146	116	122	153	113	103	110
Earth Observation	246	254	219	232	184	211	192	269	168	200
Space Sciences	68	52	59	58	62	61	84	100	102	68
Other	12	12	21	71	26	9	11	12	13	16

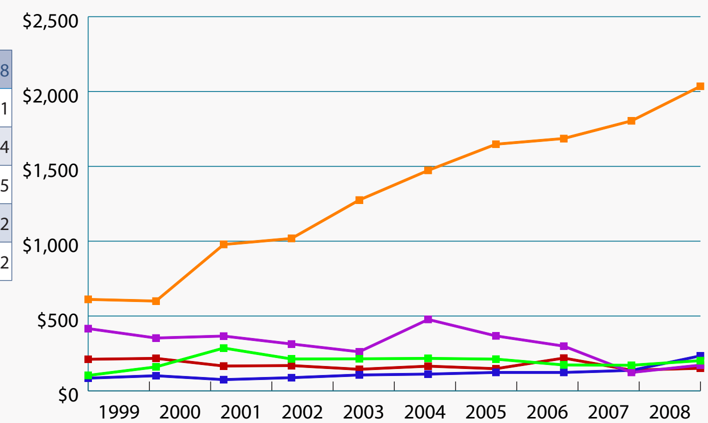
TEN YEAR TREND: 1999-2008

Workforce by Type of Employment: 1999-2008



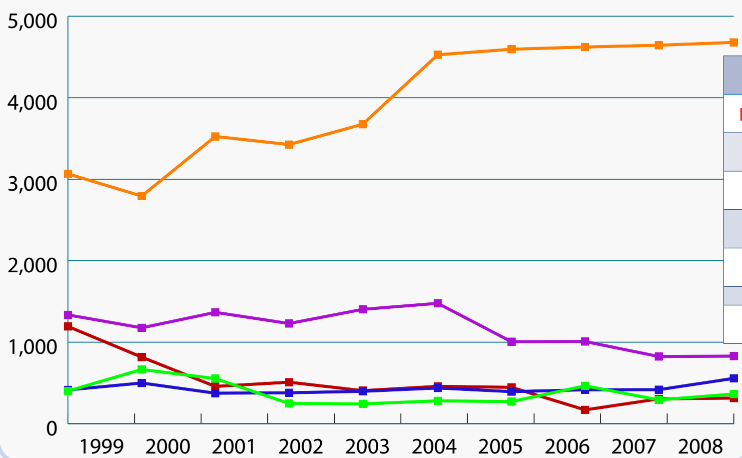
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Workforce	6,408	5,950	6,275	5,789	6,122	7,179	6,710	6,678	6,481	6,742
Engineers & Scientists	2,365	2,128	2,196	2,077	2,221	2,679	2,436	2,353	2,144	2,189
Technicians	1,099	1,127	872	760	884	987	929	1,022	982	1,053

Revenues by Canadian Region: 1999-2008 (C$m)

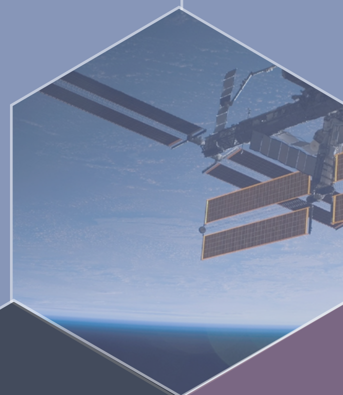


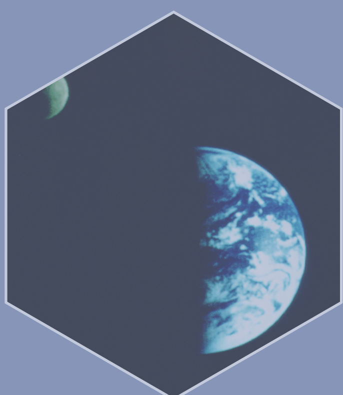
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
British Columbia	211	217	116	169	144	165	148	219	138	151
Prairies	85	101	75	88	106	112	123	123	137	234
Ontario	611	600	978	1,018	1,275	1,473	1,648	1,686	1,804	2,035
Quebec	416	353	366	313	261	477	367	299	123	172
Atlantic	103	160	286	213	214	217	212	173	171	202

Workforce by Canadian Region: 1999-2008



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
British Columbia	1,193	817	457	509	405	458	446	169	304	314
Prairies	414	499	374	379	397	438	393	416	417	556
Ontario	3,066	2,793	3,525	3,425	3,675	4,527	4,595	4,622	4,644	4,679
Quebec	1,335	1,176	1,336	1,229	1,403	1,477	1,006	1,008	824	829
Atlantic	401	665	553	248	243	280	271	464	292	364
TOTAL	6,408	5,950	6,275	5,789	6,122	7,129	6,710	6,678	6,481	6,742





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