

FEBRUARY - MARCH 2001



Summary

An Award of Excellence for the CD-ROM Geomatics at the Service of Managers

On November 28 last, as part of Government Communications Day in Québec City, the Ministère des Ressources naturelles received the Zenith Award in the Audiovisual and Multimedia category for its CD-ROM entitled Geomatics at the Service of Managers. Communications Day is an annual event bringing together communications specialists from throughout Québec's civil service. Every two years, the Zenith Awards for Excellence are presented as a tribute to the quality of the productions developed by government organizations and the excellence of the work done by their creators.

[Article](#)

The UNISIG Project in Abitibi-Témiscamingue A Province-wide Impact

With UNISIG, the Conférence des préfets de l'Abitibi-Témiscamingue (CPAT), which manages the project, hopes to unify the geographic information systems of the Abitibi-Témiscamingue region's five RCMs. The project will lead to the introduction of a common standard as well as harmonization of data production by georeference information systems (GIS). The data produced will be used to create a huge mosaic map covering the entire Abitibi-Témiscamingue area. Data standardization will also facilitate the creation of a common Web-based distribution centre for geographically referenced data, with access for organizations, companies and eventually the general public. The UNISIG project, launched last fall, will have three phases, namely graphic registers, forestry and development plans.

A New CD-ROM for the Geodetic Network

Last December, the Direction générale de l'information géographique at the Ministère des Ressources naturelles launched a brand new CD-ROM entitled Le réseau géodésique de grande précision et le système de référence NAD83 (CSRS). For the first time ever, the new tool presents information on Québec's high-precision geodetic network (HPGN), which includes

Be a GÉOinfo subscriber!

We will keep you advised on the appearance of each newsletter.

Enter your email address:



GÉOinfo is a bimonthly Internet newsletter produced by the Plan géomatique du gouvernement du Québec, PGGQ team. Its articles principally address current issues in the field of geomatics within the government of Québec.

Editor-in-Chief

Marie-Josée Gallien

Editorial Committee

Geneviève-Ilou Boucher
Luc Gravel
Pierre Lessard
Louis Rousseau
Chantal Seuthé

Contributors

Michel Cadieux
Denis Fortin
Michel Lévesque
Donald Maltais
Daniel Rochefort

Linguistic Revision

more than 1,800 geodetic points established since 1994. The CD-ROM contains data sheets from all these points, with their coordinates in the NAD83 (CSRS) Reference System, an improved version of the NAD83 currently in use in Québec. The NAD83 (CSRS) is both accurate and consistent, and assigns coordinates with a relative horizontal accuracy of between 0.1 and 1.0 parts per million (ppm) to all HPGN points.

When Geomatics Teams Up with E-Commerce

On November 22 last, the Direction des redevances et des titres miniers (DRTM) of the Ministère des Ressources naturelles (MRN) launched its GESTIM application (which stands for gestion des titres miniers, or mineral title management) on the Internet. The event coincided with the implementation of the new mining system and the start of the Séminaire d'information sur la recherche géologique (information seminar on geological research). GESTIM elicited a great deal of interest among industry representatives at the seminar.

[Article](#)

Distribution Lists - Growing in Popularity?

Web-based distribution lists are less popular than newsgroups. However, this is a situation that is changing rapidly. Many Web services now offer free hosting for distribution lists, and over the years nearly a hundred such lists have been created in the broader geomatics field.

NUMÉRIMAGE

A New View of Québec!

Have you heard of regional image maps - colour digital satellite images showing regional territorial occupation details? If so, you will be pleased to learn that they will shortly be available for the whole of Québec. From

Les Textes impeccables inc.

Translation

Christine Gardner
Garriss et Vachon inc.

Electronic Edition

Prospection Inc.

Networking

Jacques Roussin

GÉOinfo

Phone: (418) 627-6250, ext. 2166
Fax: (418) 646-9424

Comments

✉ [Marie-Josée Gallien](#)

April 2001 onwards, the Spatiocarte du Québec, a summary portrait of the province in 130 georeferenced image files, will be available from the Ministère des Ressources naturelles (MRN), through its program to modernize Québec's geographical reference information infrastructure.

Satellite Imagery Blown in on the Wind!

In 1994, the Ministère des Ressources naturelles (MRN) first used imagery from the Landsat-TM satellite to determine the best sites for erecting towers that would be used to measure the wind power potential in the Chic-Choc area of Gaspé. The information provided by these images proved so valuable that the MRN repeated the experience in 1998 and 2000. When used in conjunction with conventional maps, the photos from the Landsat-TM satellite made it possible to locate 21 new towers in Gaspé peninsula and reap significant savings.

[Article](#)

 [Return on top](#)

ISSN : 1488-0741



PGGQ Home

[© Gouvernement du Québec, 2001](#)



Events of Interest


2001

2001 GITA Annual Conference XXIV

Organization : Geospatial Information and Technology Association (GITA)

When: March 4-7, 2001

Where: San Diego Convention Center, San Diego (Californie), U.S.A.

 (303) 337-0513

 staff@gita.org

 <http://www.gita.org/events/events2.html>

ACSM 2001 Conference and Exposition


Organization : American Congress on Surveying and Mapping (ACSM)

When: March 17-21, 2001

Where: Las Vegas (Nevada), U.S.A.

 (301) 493-8245

 info@acsm.net

 <http://www.acsm.net>

4th Biennial Edition of the Pan-American Environmental Technology Trade Show

Organization : Réseau Environnement

When: March 28-30 2001

Where: Convention Center, Montreal (Québec), Canada


One of the Conference themes will be "Environmental Geomatics"

GeoSpatial World 2001 International Conference


Organization: Intergraph GeoSpatial User Community

When: June 18-20 2001

Where: Renaissance Waverly Hotel, Atlanta (Georgia), U.S.A.

 1 800 791-3357

 iguc@intergraph.com

 <http://www.intergraph.com/gis/community/geospatialworld/>


"Digital Earth 2001: Beyond Information Infrastructure"

2nd International Symposium on Digital Earth
The 3th Conference of the Géoide Network and the conference of the Atlantic Institute will be held alongside the event.


Organization: New Brunswick section of the Canadian Institute of Geomatics




When: June 24-28, 2001

Where: Fredericton (New Brunswick), Canada

 1 866 334-4825

 info@digitalearth.ca

 <http://www.digitalearth.ca>

 (514) 270-7110
 info@americana.org
 <http://www.americana.org/francais/>

"Integrating GIS & CAMA 2001"

The 5th Annual Conference for Professional in Assessment, Appraisal, Assessment Administration and Information Technology

Organization : Urban and Regional Information Systems Association (URISA)

When: April 1-4, 2001

Where: Wyndham Inner Harbour Hotel, Baltimore (Maryland), U.S.A.

 (847) 824-6300
 info@urisa.org
 <http://www.urisa.org/01cama/cama2001exhibitorprospectus.htm>

"Les fusions municipales et la géomatique : Comment s'y préparer?"

Spring 2001 conference of the Association de géomatique municipale du Québec

Organization : Association de géomatique municipale du Québec

When: April 3, 2001

Where: Auberge des gouverneurs, Saint-Hyacinthe (Québec), Canada




 (514) 282-3819
 agmq@affaires.com
 <http://www.agmq-quebec.com/>

"Discover the Power of Where"

MapInfo Canada/Compusearch Group User Day

When: April 12, 2001




Where: South Building, Metro Toronto Convention Centre, Toronto (Ontario), Canada

 (518) 285-7411
 conferences@mapinfo.com
 <http://www.mapinfo.com/company/events/>

21st Annual ESRI International User Conference

When: July 9-13, 2001

Where: San Diego Convention Center, San Diego (Californie), U.S.A.

 (909) 793-2853#1-1363
 uc2001@esri.com
 <http://www.esri.com/events/uc/>

"Remote Sensing in the Third Millennium: From Global to Local"




23rd Canadian Symposium on Remote Sensing, held in conjunction with the 10th Congress of the Québec Remote Sensing Association

Organization: Canadian Remote Sensing Society and Québec Remote Sensing Association

When: August 20-24, 2001

Where: Université Laval, Pavillon Desjardins, Sainte-Foy (Québec), Canada

Information: Marie Juneau

 (613) 234-0191
 casi@casi.ca
 <http://www.casi.ca>




"GIS - The Currency for Modern Governments"

URISA 2001 The First Caribbean GIS Conference

Organization: Urban and Regional Information Systems Association (URISA)

When: September 9-12, 2001

Where: Wyndham Rose Hall, Montego Bay, Jamaïque

 (847) 824-6300
 info@urisa.org
 <http://www.urisa.org/2001/Caribbean/callforprescar.htm>

22nd Annual CIUG Education Forum

Organization: Canadian Intergraph Users Group (CIUG)

conferences/compusearch_user_2001/index.cfm


When: September 16-19, 2001
Where: Calgary (Alberta), Canada

Conférence de Montréal

7th International Forum on the New Economy Seminar: "La géomatique et les ressources naturelles", Friday, April 20


When: April 17-20, 2001


Where: Queen Elizabeth Hotel, Montreal (Québec), Canada


 1 888 772-5142

 conference@conferencedemontreal.com

 <http://www.conferencedemontreal.com>

 (403) 569-5562

 bartzr@novachem.com

 <http://www.ciug.ca/conference/conference.htm>

GITA 2001 GIS for Oil & Gas Conference

Organization: Geospatial Information and Technology Association (GITA)

When: September 17-19, 2001


Where: JW Marriott Hotel, Houston (Texas), U.S.A.

IMTA of the Americas Annual Conference & Trade Show


Organization: International Map Trade Association


When: April 19-21, 2001

Where: Washington (DC), U.S.A.


 (815) 939-4627

 imta@maptrade.org

 <http://www.maptrade.org/washington/washington.html>

 (303) 337-0513

 staff@gita.org

 http://www.gita.org/events/conferences/oil_gas/01og/01oilgas_open.html

1º Congreso Nacional De Geomática

Organization: Universidad de Guanajuato - Facultad de Ingenieros Topógrafos e Hidráulicos

When: September 19-21, 2001

Where: Hotel Gran Plaza, Guanajuato (Gto.), Mexique

"Gateway to the New Millenium"

Organization: American Society for Photogrammetry and Remote Sensing (ASPRS)


When: April 23-27, 2001


Where: Adam's Mark Hotel, Saint-Louis (Missouri), U.S.A.

 (301) 493-0290#109

 tbattee@asprs.org

 <http://www.asprs.org>

 (01-4) 732-18-13

 victor@quijote.ugto.mx

 <http://usic13.ugto.mx/geomatica>

"URISA 2001 39th Annual Conference and Exposition"

Organization: Urban and Regional Information Systems Association (URISA)

When: October 20-24, 2001

Where: Convention Center - Hyatt, Long Beach (Californie), U.S.A.


"Technology - Making Public Works - Work Better"

Technology in Public Works Conference


Organization: Urban and Regional Information Systems Association (URISA)

When: May 6-8, 2001

Where: Holiday Inn O'Hare International,


 (847) 824-6300

 info@urisa.org


 <http://www.urisa.org/annual.htm>

GIS/LIS Annual Conference & Expo Organizer

Rosemont (Illinois), U.S.A.

 (847) 824-6300

 info@urisa.org


 http://www.urisa.org/publicworks2001/public_works_01_exhibitor_prospectus.htm

"Carto 2001 - Cartography, Professions and Perspectives"


Organization: Canadian Cartographic Association (CCA) and Association of Canadian Map Libraries and Archives (ACMLA)

When: May 30-June 2, 2001

Where: Université du Québec (UQAM), Montreal (Québec), Canada

 (514) 522-5715

 acsg_mtl@mlink.net

 <http://www.geo.uqam.ca/carto2001/carto2001.htm>

KIS 2001


The International Symposium on Kinematic Systems in Geodesy, Geomatics and Navigation

Organization: University of Calgary - Department of Geomatics Engineering et U. S. Institute of Navigation


When: June 5-8, 2001

Where: Banff Center, Banff (Alberta), Canada

Information: Marguerite Anderson

 (403) 220-4982

 marguerite@geomatics.ucalgary.ca


 <http://www.geomatics.ucalgary.ca>

"CoastGIS 2001 - Managing the Interfaces"

Organization: International Cartographic Association (ICA)

When: June 18-20, 2001


Where: Saint Mary's University, Halifax (Nova Scotia), Canada


 coastgis2001@agc.bio.ns.ca

Organization: Geospatial Information & Technology Association (GITA)

When: October 21-25, 2001

Where: Long Beach (Californie), U.S.A.

 (303) 337-0513

 staff@gita.org


 <http://www.gita.org>

ASPRS Digital Elevation Model (DEM) Specialty Conference


Organization: ASPRS and the Management Association for Private Photogrammetric Surveyors (MAPPS)

When: October 31-November 2, 2001

Where: St. Petersburg (Floride), U.S.A.

 (301) 493-0290#106


 meetings@asprs.org

 http://www.asprs.org/dem_conf_press_release.pdf


MapWorld 2001 Worldwide Conference

When: November 10-15, 2001

Where: Renaissance Orlando Resort à SeaWorld, Orlando (Floride), U.S.A.

 (518) 285-7411

 conferences@mapinfo.com

 <http://www.mapinfo.com/company/events/conferences/index.cfm>


Geography Awareness Week

Organization: National Geographic Society

When: November 10-17, 2001

Where: See the list of events on the Web site

 gaw@nationalgeographic.com

 <http://magma.nationalgeographic.com/education/gaw/about.html>

GIS Day 2001 (Open House on GIS)

When: November 14, 2001

Where: See the list of events on the Web site


2002

2002 GITA Annual Conference XXV

Organization: Geospatial Information and Technology Association (GITA)

When: March 17-20, 2002

Where: Tampa Convention Center, Tampa (Florida), U.S.A.

 (303) 337-0513

 staff@gita.org


 http://www.gita.org/events/conferences/gita_annual/02_25/02_25_open.html

2002 ASPRS-ACSM Annual Conference and FIG Congress

Organization: American Society for Photogrammetry and Remote Sensing (ASPRS)

When: April 22-26, 2002

Where: Washington (DC), U.S.A.

 (301) 493-0290#106

 meetings@asprs.org


 <http://www.asprs.org/asprs/meetings/upmeeting.html>

The 98th AAG Annual Meeting

Organization: American Association of Geographers (AAG)

When: March 19-23, 2002

Where: Los Angeles (California), U.S.A.

 (202) 234-1450

 gaia@aag.org

 <http://www.aag.org>


2003

The 99th AAG Annual Meeting

Organization: American Association of Geographers (AAG)

When: March 4-8, 2003

Where: Nouvelle-Orléans (Louisiane), U.S.A.

 (202) 234-1450

 gaia@aag.org


 <http://www.aag.org>

2003 GITA Annual Conference XXVI

Organization: Geospatial Information and Technology Association (GITA)

When: March 23-26, 2003

Where: Kansas City Convention Center, Kansas City (Missouri), U.S.A.

 (303) 337-0513

 staff@gita.org

 http://www.gita.org/events/conferences/gita_annual/futconf.html

 [Return on top](#)



PGGQ Home



Réalisation de l'édition électronique : [Prospection Inc.](#)

[© Gouvernement du Québec, 2001](#)

FEBRUARY- MARCH 2001



Article

An Award of Excellence for the CD-ROM Geomatics at the Service of Managers

by Marie-Josée Gallien

On November 28 last, as part of Government Communications Day in Québec City, the Ministère des Ressources naturelles received the Zenith Award in the Audiovisual and Multimedia category for its CD-ROM entitled Geomatics at the Service of Managers (see [GÉOinfo](#), vol. 2, n° 2, May-June-July 2000). Communications Day is an annual event bringing together communications specialists from throughout Québec's civil service. Every two years, the Zenith Awards for Excellence are presented as a tribute to the quality of the productions developed by government organizations and the excellence of the work done by their creators. This year, 62 projects were nominated in 10 different categories.



The Award for Excellence was presented to France Dumais, project manager, and Gilles Therrien, associate producer. Both work for the MRN's Direction de la planification et des communications, and made a significant contribution to the success of the project. Their efforts were supported by the staff of the Plan géomatique du gouvernement du Québec, namely Réal St-Laurent, the project promoter, Bernard Lachance, its coordinator, and Linda St-Michel, who was in charge of content. Partners from other government departments and agencies also made valuable contributions.

The CD-ROM, launched last March at the Géomatique 2000 conference, is first and foremost an awareness tool designed for use by decision-makers in Québec and abroad. The content focuses on the main components and different applications of geomatics in a wide range of sectors. It illustrates the benefits of using geomatics as a knowledge, management and strategic planning tool, and provides information on the unique collaborative approach used by the Québec government to start, manage and coordinate its geomatics activities.

So far, more than 1,000 copies have been distributed to government departments and agencies, municipalities, educational institutions, private enterprises and foreign users. In fact, the CD-ROM has proved to be an excellent way of promoting Québec's expertise abroad. It is currently available in French, English and Spanish, and a Portuguese version will be completed in the near future. The project's promoter, the Plan géomatique du gouvernement du Québec, is responsible for distributing the CD-ROM.

Réal St-Laurent, who chairs the Geomatics Plan Steering Committee, congratulates the two winners and thanks everyone who worked directly or indirectly on the development of this important geomatics promotional tool.

Information:

Luc Gravel
Secretary
Plan géomatique du gouvernement du Québec



(418) 627-6250, ext. 2162



luc.gravel@mrnfp.gouv.qc.ca

 [Return on top](#)

[Next Article](#) 



PGGQ Home



[© Gouvernement du Québec, 2001](#)

FEBRUARY- MARCH 2001



Article

When Geomatics Teams Up with E-commerce

by **Michel Cadieux**
and **Denis Fortin**

On November 22 last, the *Direction des redevances et des titres miniers* (DRTM), part of the *Ministère des Ressources naturelles* (MRN) launched its GESTIM application (which stands for **G**estion des **t**itres **m**iniers or **m**ineral title management) on the Internet. This event coincided with the implementation of the new mining system and the start of the *Séminaire d'information sur la recherche géologique* (information seminar on geological research). Moreover, GESTIM elicited a great deal of interest among industry people attending the seminar.



GESTIM figures in as part of the revision of Quebec's mining system, which began in 1995. Under the new system, titles are designated on maps, which is an improvement over the traditional staking of claims. In particular, it provides access to the title register, which contains information about 250,000 lapsed claims, 100,000 active titles, and details about

11,000 assessment work declarations. The management data are up-to-date and GESTIM enables users to save significant amounts of money that can be in excess of a million dollars annually in travel, postal, and communication expenses.

The project aims at getting customers more involved in the management of mineral titles and ensuring that DRTM resources are used to the fullest. In particular, access to essential data for managing titles reduces the number of activities involved in request intake and processing, which translates into less paperwork and faster request processing. Prior to

system revision, the process for registering a claim could take from 60 to 100 days, involve 8 steps, and require a 15 point verification. Registering a claim today takes about three days. In addition, the process has been reduced to 5 steps and a 4 point verification.

One of GESTIM's most innovative aspects is, without a doubt, the distribution of geomatics data over the Internet. Users who want to consult or acquire titles can call up sectors (sheet or township) that appear with basic reference data, such as surveying, topographic, hydrographic, and toponymic information. The areas covered by the titles appear on this reference background with an accuracy of a few centimeters, complete with descriptive data from the public registry of mineral titles. The maps are assembled on Microstation and then loaded, with the registry, into the Oracle 8i database. The data are distributed with an NT/IIS server running Geomedia Web Map 4 and a UNIX/Oracle 8i server with SDO.

Now offered free of charge, the services include consultation and use of the data in the registry of mineral titles, mineral title maps, and distribution of the lists of lapsed claims. The site also uses e-commerce for paying rights. Moreover, the MRN has set an objective of offering all of its services using an e-management system (PES) within the next four years. GESTIM represents the first step in achieving this goal. The combination of revising business practices and using information technologies has produced added value.

GESTIM enables Quebec to offer very attractive comparative advantages over the other provinces. As a matter of fact, no other province offers system users this degree of independence or comparable online services. Furthermore, GESTIM has enabled the MRN to develop the cutting-edge expertise in the area of information technologies applied to land management.

You can find out more by visiting the GESTIM Web site at: <http://tm.mrnfp.gouv.qc.ca>.

Information:

Michel Cadieux, Project Officer
Direction des services informatiques
Ministère des Ressources naturelles

 michel.cadieux@mrnfp.gouv.qc.ca

Denis Fortin, Department Head
Service des systèmes de gestion des lois
Direction des redevances et des titres miniers
Ministère des Ressources naturelles

 (418) 627-6292, ext. 5467

 denis.fortin@mrnfp.gouv.qc.ca

 [Previous Article](#)

 [Return on top](#)

[Next Article](#) 



PGGQ Home



© Gouvernement du Québec, 2001



FEBRUARY- MARCH 2001



Article

NUMÉRIMAGE

Satellite Imagery Blown in on the Wind!

by Donald Maltais

In 1994, the Ministère des Ressources naturelles (MRN) used for the first time imagery from the Landsat-TM satellite to determine the best sites for erecting towers for measuring the wind power potential in the Monts Chic-Chocs area in Gaspésie. The information provided by these images proved so valuable that the MRN repeated the experience in 1998 and 2000. When used in conjunction with conventional maps, the photos from the Landsat-TM satellite made it possible to adequately locate 21 new towers in Gaspé peninsula and reap significant savings.

Wind Power Potential in Quebec

In 1994, a group of individuals from the Ministère des Ressources naturelles, the Université du Québec à Rimouski (UQAR), and Hydro-Quebec began the first phase of a campaign to determine Quebec's wind power potential. The work followed up the publication of the first atlas of wind power potential. The information in the atlas came, for the most part, from Environment Canada weather stations. Since these stations were not set up specifically to measure wind power potential, most of them are located in areas useful for air and marine navigation. Standard meteorological towers are 10 m high and react to turbulences, whereas windmill towers measure from 30 to 40 m in height.

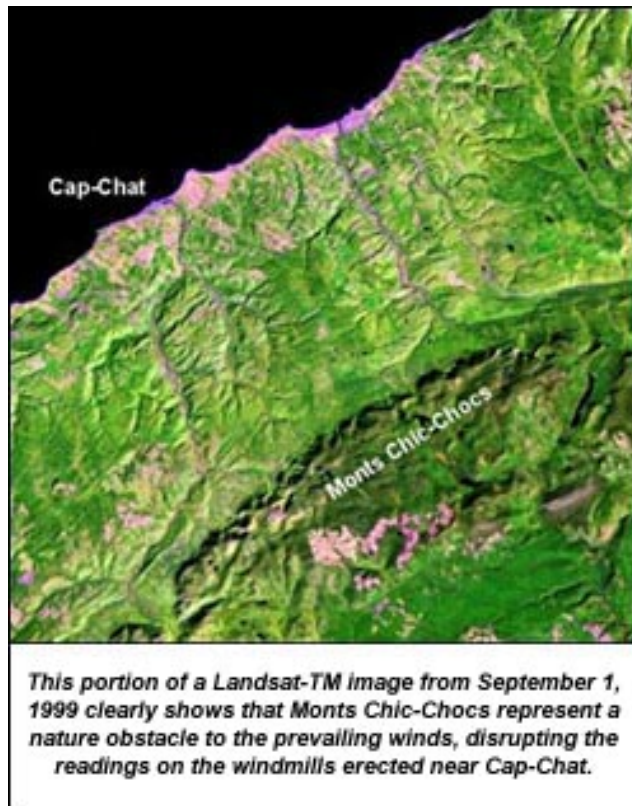
Consequently, in order to obtain wind power data of greater accuracy than that yielded by

standard meteorological towers, the group was given the task of finding appropriate locations for erecting wind power measurement towers. These towers must be located on sites that are unobstructed and properly oriented with respect to prevailing winds. In Quebec, the prevailing winds are northwesterly and are accelerated when they follow the flow of the Saint Lawrence. The process for locating potential sites involved the use of topographic maps at the 1:50 000 scale. Such maps use contours to represent elevation, which doesn't necessarily reflect field reality. Nevertheless, the first towers were erected based on this information.

The outcomes at certain sites, however, were surprising! The initially promising sites had turbulence problems, which made it practically impossible to erect windmills. This was the case with the site at Saint-Octave-de-l'Avenir, an abandoned village near Cap-Chat. The site appeared wholly suitable with an unobstructed, well-oriented plateau. Yet, over a period of more than a year, an anemometer located at 20 m on the tower recorded wind velocities that were sometimes higher than those recorded by the anemometer at the 40-m mark. Since this type of reaction conflicts wholly with the laws of physics, it was decided to replace the measuring equipment, recalibrate, and increase the number of verifications. But none of that worked! Consequently, the station was dismantled after a year, which was a year before the normal period for taking measurements.

Enter the Satellite!

In seeking out new tools, the Department turned to Landsat-TM satellite imagery from the Banque de données satellitaires du Québec (BDSQ). The first image used--that of Gaspésie--was a revelation! Monts Chic-Chocs were so clearly defined on the image that the researchers were able to account for the disparity in the results at the wind power measurement station at Saint-Octave-de-l'Avenir. In fact, it was as clear as the nose on your face. Monts Chic-Chocs blocked the prevailing winds, producing a turbulent deflection over the plateau that accounted perfectly for the otherwise illogical behavior of the anemometer for certain wind directions. The shadow on the satellite image brought out the relief much more distinctly than the topographic map alone could do.




Through the combined use of satellite images and conventional maps, appropriate candidates for 5 towers were found in 1998 and more than 16 others in 2000. Moreover, the satellite images made it possible to save about 10 person-days in locating sites for installing the towers for measuring wind power potential. Obviously, the savings are significant. But beyond that, they underscore that the associated costs are much less than the \$800 per hour rate for overflying target areas in a helicopter. In addition, the images are so precise that many of the discrepancies arising from local effects (such as hard-to-see coulees or ravines, or nearby obstacles) can be accounted for. Satellite images are available in digital format. They can be enlarged to bring out certain details or serve as a base for superimposing additional information, if need be.

While one might initially wonder about the usefulness of satellite images in the energy field, they can yield significant savings. It would be a shame to miss out on what they have to offer.

Information:

Donald Maltais, Project Officer for the Programme de mesure du potentiel éolien
Direction de la planification et de la recherche
Secteur de l'énergie
Ministère des Ressources naturelles

 (418) 6380, ext. 8119

 donald.maltais@mrnfp.gouv.qc.ca

 [Previous Article](#)

 [Return on top](#)



Québec 
Ministère des
Ressources naturelles

PGGQ Home



© Gouvernement du Québec, 2001