

## Letters of Interest in NGST NIRCcam from Canadian Organizations

This is a summary of all the Letters of Interest which were received by the CSA by the closing date of 30 August 2001 in response to a Request posted on the PWGSC MERX web site on 22 August 2001, reference number PW-\$\$\$SR-05-6939, solicitation number 9F007-01NGST/A. A copy of the Request and copies of all the Letters of Interest follow this summary.

This summary lists the Letters of Interest alphabetically by organization name and does not assign any priorities or preferences.

- 1) ABB Bomem  
585 Boul. Charest Est  
Suite 300, Quebec, PQ  
Canada G1K 9H4

Contact:

Jacques Giroux  
Director, Special Projects in Radiometry (SPIR) Division  
Tel. (418) 877-2944  
Fax.: (418) 266-1422  
Email: Jacques.g.giroux@ca.abb.com

Capabilities and Areas of Interest:

- optical design
- filter wheels
- Fabry-Perot
- electronics
- calibration sources
- opto-mechanical motion control
- vacuum and cryogenic testing

- 2) COM DEV Ltd.  
155 Sheldon Drive, Cambridge  
Ontario  
Canada N1R 7H6.

Contact:

Terry Girard  
Manager, Space Science and Remote Sensing Group  
Tel: 519-622-2300, x2536  
Email: terry.girard@comdev.ca

Capabilities and Areas of Interest:

- Extensive space heritage in both the space science and commercial areas

- Systems engineering and analyses
- Mechanism design and analyses (including mechanism drive and control)
- Cryogenic systems and detectors
- Optical design and analyses
- Structural design and analyses
- Thermal design and analyses
- Digital and Analog electronics design and analyses
- Flight and EGSE software

3) DRS Flight Safety and Communications  
 700 Palladium Drive, Suite 100,  
 Kanata, Ontario, Canada  
 K2V 1C6

Contact:

Mr. John Muston  
 Director, Sales and Marketing  
 Tel. (613) 591-6442  
 Fax. (613) 591-5801  
 E-mail: jmuston@drs.ca

Capabilities and Areas of Interest:

- IR/EO System Engineering, Analysis and Design
- IR/EO Mathematical Modelling
- Digital Hardware Design
- Real-time software design and implementation
- Space Qualified Manufacturing.

4) EMS Technologies Canada Ltd.  
 1725 Woodward Drive  
 Ottawa, Ontario  
 Canada K2C 0P9

Contact:

Dr. Neil Rowlands  
 Development Manager Space Science & Research Instruments  
 Tel: (613) 727-6277 x2319  
 Fax: (613) 727-9455  
 Email: rowlands.n@ems-t.com

Capabilities and Areas of Interest:

- Designing, fabricating and testing complete space instruments
- Imaging optics

- Spectral selection optics
- Structures
- Mechanisms
- Calibration sources
- Detector electronics
- Instrument control electronics
- Instrument software
- Associated ground support equipment.
- Tunable filters, either integrated into a sub-system or as a component:
  - building on the experience gained with the electro-optical tunable Michelson interferometer developed for WINDII.
  - developing a wide-field tunable Fabry-Perot etalon

5) Herzberg Institute of Astrophysics  
 National Research Council of Canada  
 5071 West Saanich Road  
 Victoria, BC  
 Canada V9E 2E7

Contact:

David Crampton  
 Head, Instrumentation Group  
 Tel: (250) 363-0010  
 Fax: (250) 363-0045  
 Email: David.Crampton@hia.nrc.ca

Capabilities and Areas of Interest:

- Entire palette of skills needed to develop astronomical instrumentation:
  - scientific development and engineering management of the instrument characteristics
  - design in the optical, mechanical, electrical, and software disciplines
  - expertise in detectors (including experiments and modeling of space radiation damage in detectors)
  - expertise cryogenics
  - fabrication in all of these areas
- Large instrument integration lab fitted for the integration and test of large precision ground-based instruments.

6) INO  
 2740 Einstein Street  
 Sainte-Foy, Québec  
 Canada G1P 4S4

Contact:

Simon Thibault Ph.D., Ing.  
Head of Technology, Optical Engineering  
Tel: (418) 657-7006  
Fax: (418) 657-7009  
Email: [\\_Simon.Thibault@ino.ca](mailto:_Simon.Thibault@ino.ca)

Capabilities and Areas of Interest:

- Optical and mechanical design and analysis from UV through IR using refractive, reflective, aspheric, diffractive and plastic optics.
- Imaging and non-imaging systems
- Illumination systems
- Gaussian beam optics and propagation
- Stray light and scattering analysis
- Finite element vibration, stress and thermal analysis
- Interferometric optics

- 7) IP Unwired Inc.  
Building 94  
Suite 228  
3701 Carling Avenue  
Station H  
P.O. Box 11490  
Ottawa, Ontario  
Canada K2H 8S2

Contact:

Peter Jones, Ph.D, P.Eng  
Director of Research and Development  
Tel: (613) 829-1310 ext 223  
Fax: (613) 829-9356  
Website: [www.ipunwired.com](http://www.ipunwired.com)

Capabilities and Areas of Interest:

- Image processing and compression
- Data transmission and remote control
- Network (e.g. Internet) connectivity
- Electronics subsystem design

- 8) Laboratoire d'Astrophysique Expérimentale  
Laval University

Faculty of Science and Engineering  
Department of Physics  
Cite Universitaire  
Quebec  
Canada G1K 7P4

Contact:

Gilles Joncas  
Professor, Department of Physics  
Tel. 418 656-5982  
Fax. 418 656-2040

Capabilities and Areas of Interest:

- Design and construction of IR cameras and spectrometers
- Astronomy research; young stellar systems, brown dwarfs, search for extra-solar planets, massive stars, giant HII regions, stellar populations, kinematics and dynamics of HII regions, IR photometry of young star clusters and interaction of massive stars with the interstellar medium.

- 9) Magellan Aerospace Corporation  
Bristol Aerospace Ltd.  
P.O. Box 874  
660 Berry St.  
Winnipeg, Manitoba  
Canada R3C 2S4

Contact:

Ken Kohut  
Business Development, Space  
Tel: (204) 788-2914  
Fax: (204) 775-7494

Capabilities and Areas of Interest:

- Precision pointing and stabilization platform

- 10) Narhval Systems Inc.  
10357 Avenue D'Auteuil  
Montreal  
Canada H3L 2K3

Contact:

Bruno Murray

President  
Tel: (514) 990 - 4702  
Fax: (514) 382 - 2864  
e-mail: bmurray.narhval@qc.aira.co

Capabilities and Areas of Interest:

- Project management
- Systems and software engineering

11) Routes AstroEngineering Ltd  
303 Legget Drive  
Ottawa, Ontario  
Canada K2K 2B1

Contact:

Dr. W.F. Tory Payne, Managing Partner  
Tel: (613) 592 0748  
Fax: (613) 592 6553  
Email: t\_payne@routes.com

Capabilities and Areas of Interest:

- Low noise electronics for CCD's and InGAS linear arrays.
- In house optical design capability.
- Specialized power subsystem designs for rotating joints, and very low noise supplies.
- Strong system engineering approach to the design problem.
- Focused, low-overhead company operation
- Thermal and mechanical design capability
- Digital electronic design and manufacture for space applications, including radiation hardened and SEU fault tolerant systems.