CIDCO
Centre interdisciplinaire de développement en cartographie des océans

Interdisciplinary Centre for the Development of Ocean Mapping

CIDCO is a growing R&D center in ocean mapping based in Rimouski, working in partnership with universities and other research institutions at both the national and international levels. Its mission is to modernize hydrography through research, development, training, and technology transfer, and to leverage the results through a sustainable approach supported by strategic partnerships and cutting-edge expertise. www.cidco.ca

CIDCO is seeking a candidate to fill the following position:

Hydrographic Engineer / Marine Geomatics Specialist

 # 2025-02

Position Summary :

The selected candidate will work with a variety of remote sensing techniques (satellite imagery, multispectral images, aerial photography, airborne LiDAR) and use advanced electronic instruments to collect data via maritime platforms (multibeam sonar, side-scan sonar, sub-bottom profiler, magnetometer, single-beam echo sounder, underwater, surface, and aerial drones, etc.) in order to gather all necessary information for the production of marine charts (shorelines, waterways, seabeds, tides, and currents) as well as nautical and oceanographic documents. The candidate will also be responsible for conducting at-sea measurement campaigns (depths, tides, currents, temperature, salinity, seabed composition, gravity field, magnetic field, etc.). They must be capable of operating onboard hydrographic survey vessels, preparing and executing marine and field operations, and ensuring the processing and formatting of the collected data.

Under the supervision of CIDCO's Director of Projects and Training, the candidate will contribute to the execution of specialized hydrographic projects. They will also participate in the research and development of new technologies related to the acquisition, processing, analysis, and manipulation of marine spatial data. In addition, the position includes conducting field experiments and integrating prototype systems for collecting hydrographic data. The candidate will also be involved in CIDCO's professional training program in hydrography.

Tasks and Responsibilities :

- Participate in field and marine-based projects, including studies, analysis, design, testing, and implementation of systems aimed at optimizing the acquisition, processing, management, production, and dissemination of marine spatial data;

- Work in close collaboration with various experts and multidisciplinary researchers such as hydrographers, land surveyors, civil engineers, oceanographers, underwater archaeologists, fishers, programmers, and electronics specialists;

- Prepare technical reports on project progress as well as summary documentation;

- Contribute to the writing and presentation of scientific papers for national and international conferences;

- Participate in knowledge transfer and training activities with partners, particularly on the use of hydrographic data acquisition and processing technologies and software. Also contribute to CIDCO's e-learning training program in hydrography and its seven-week practical field internship.

Required Education and Experience :

- University degree (bachelor's or master's) in engineering or science, with a focus on geomatics, oceanography, or geography. A formal hydrography qualification recognized by the International Hydrographic Organization (IHO) would be considered an asset;
- At least two years of experience in data acquisition using mobile platforms (airborne, marine, or terrestrial) and related sensor systems (multibeam and single-beam echo sounders, LiDAR, inertial navigation systems, GNSS-based positioning);
- Strong knowledge of applied geodesy, observation theory, and adjustment methods;
- Solid background in engineering mathematics and information processing (numerical methods, statistics, algorithms);
- Experience in programming for numerical methods and data processing using Scilab or MATLAB, Python, Fortran, C or C++;
- Familiarity with professional hydrographic software such as Teledyne PDS, Qinsy, Kongsberg SIS, CARIS HIPS/SIPS, and proficiency with GIS tools (ArcGIS, QGIS).

Required Skills and Competencies :

- Ability to work effectively as part of a team in a high-level scientific environment;
- Openness to and interest in multidisciplinary collaboration;
- Strong capacity for abstraction and mathematical modeling;
- Good analytical and synthesis skills with a problem-solving mindset;
- Excellent verbal and written communication skills in both French and English.

Employment Conditions :

- Work schedule: 35 hours per week
- Salary range: $45,000 to $90,000, depending on qualifications and experience
- Competitive employee benefits program
- Start date: As soon as possible

Les personnes intéressées doivent transmettre leur curriculum vitae avant le 30 mai 2025 à 16 h
Interested candidates must submit their résumé by May 30, 2025, at 4:00 PM, indicating CIDCO Competition No. 2025-02, to:

Frédérick Blouin – General Manager
Email : **frederick.blouin@cidco.ca**

Only candidates selected for an interview will be contacted.