

## **IDENTIFICATION**

<b>Department</b>	<b>Position Title</b>	
Aurora College	Technician	
<b>Position Number</b>	<b>Community</b>	<b>Division/Region</b>
91-15484	Inuvik	Research Division

## **PURPOSE OF THE POSITION**

The incumbent is directly responsible for providing logistical, technical, field and laboratory support to staff, researchers, community groups, agencies and instructors utilizing the Western Arctic Research Centre (WARC), Aurora Research Institute (ARI). The incumbent operates and monitors, maintains and repairs a wide range of scientific and mobile equipment, buildings and other assets of WARC and ARI head office.

## **SCOPE**

The position is located in Inuvik and reports to the Manager, Western Arctic Research Centre Logistics and Facilities. The incumbent provides a high degree of technical and logistical support to ARI staff and visiting scientists conducting a variety of research in the Western Arctic. The incumbent makes recommendations on improvements to the Institute's equipment and buildings, on new technology and equipment, and determines solutions to problems with an emphasis on northern circumstances. The incumbent is responsible for the maintenance and repair of the Institute's physical assets including buildings and equipment. The incumbent is involved in a high degree of problem solving to ensure that the Institute's resources are working at maximum efficiency and that the staff and researchers are trained in the use of the Institute's equipment. The incumbent performs daily troubleshooting, diagnosing and resolving of equipment and computer problems. The incumbent provides casual position supervision, including summer students. The incumbent is required to exercise good judgment in determining how best to meet work priorities and objectives.

## **RESPONSIBILITIES**

### **1. Provides logistics support to staff, researchers and instructors who use the Western Arctic Research Centre's equipment and facilities.**

- providing various levels of support to researchers and other clients, including the use of facilities, accommodations, and equipment;
- ensuring all equipment and instrumentation are in safe and operable condition;

- providing technical advice, local area information and any other advice or recommendations which will assist in the success of research;
  - arranging technical support for visiting scientists according to availability;
  - scheduling requests for data collection and monitoring of instrumentation on a continuous basis;
  - completing and filing paperwork related to equipment condition, and rental by external user groups, to support the logistical and financial divisions of ARI;
  - transporting researchers and their equipment to research areas by boat, snowmobile or vehicle and assisting them to set up camp/research facilities;
  - repairing and testing of instrumentation and equipment;
  - maintaining parts of the ARI inventory of scientific, mechanical and support equipment, with an emphasis on consumable items;
  - recommending to the Research Centre Manager replacement schedules for equipment, arranging for disposal of equipment, and assisting with purchasing of spare parts, etc.;
  - undertaking the repair of mechanical equipment, including outboard motors, snowmobiles, generators and vehicles; arranging for repairs.
- 2. Provides assistance in presenting scientific information to the general public.**
- assisting the Research Centre staff, college instructors and researchers with research presentations to the public, students and community groups.
- 3. Provides field and laboratory technical support to staff, scientists, instructors, college programs/courses through the Western Arctic Research Centre.**
- assisting in the selection of suitable materials and instrumentation, and providing advice on their use, based upon technical expertise and extensive knowledge of the Western Arctic environment;
  - assisting in the collection and compilation of field data for a broad range of scientific research projects;
  - assists with supervision of casual staff, students or junior research scientists working with ARI equipment in the field;
  - collection of long-term field data at the request of scientists or the Research Centre Manager;
  - compiling field and laboratory investigations, completing accurate data records and participating in the preparation of data summaries and graphs to be included in scientific reports;
  - recommending new and modified field measurement and testing procedures; and
  - providing field advice to clients on the safe use of equipment and working in a northern environment.
- 4. Operates, monitors, maintains and repairs a wide range of equipment and the Institute's buildings offered for use of clients by the Centre.**
- operating and monitoring, on behalf of various researchers, a variety of scientific instrumentation used in specialized research;
  - assessing scientific data and advising data users of any unusual activity/observations during data collection;
  - consulting with researchers on maintenance and repair matters for specialized scientific instrumentation;

- writing test procedures developed during repair work and relaying these to the client;
- checking and maintaining the daily condition of the WARCs building, housing units and storage buildings;
- maintaining, repairing and calibrating instrumentation in the Centre, using standards provided in the literature;
- recommending amounts of test materials, laboratory supplies and replacement parts required for future operations,
- assisting with supervision of casual staff, students or junior research scientists working with ARI equipment.

## **WORKING CONDITIONS**

### **Physical Demands**

The incumbent is often required to lift heavy equipment and supplies. Installation of equipment may require lifting and carrying heavy items, and/or working in confined places and awkward positions.

### **Environmental Conditions**

The incumbent is required to travel by skidoo, boat, vehicle, fixed-winged aircraft and helicopter to various research sites in the region. The incumbent is required to work outside year-round, and is therefore exposed to inclement conditions such as cold in the winter and insects in the summer. The incumbent is frequently exposed to hazardous substances, obnoxious odors, dust, dirt, excessive noise, and exhaust fumes. Work is sometimes in confined areas and/or awkward positions when repairing equipment and conducting building maintenance and repair. Due to the seasonal nature of the research, the incumbent works the majority of the time outdoors except during the winter months, when the incumbent works 50% indoors and 50% outdoors.

### **Sensory Demands**

This position requires prolonged periods of focused attention when monitoring and operating scientific instrumentation, operating mechanical equipment and working with tools. Acute use of all senses is required when diagnosing various mechanical problems, and when repairing and maintaining equipment and the Centre's buildings. The incumbent is required to read a fair amount of technical manuals, user's manuals and other documents in order to stay current with new technology. The incumbent spends a considerable amount of time dealing with staff and user groups in person and over the telephone. This requires good listening skills and the ability to pay attention to detail, in order to diagnose and resolve any logistical problems. The incumbent spends some time in front of a VDT conducting research on the Internet, gathering information for the purchasing of supplies and equipment and using e-mail to communicate with researchers. This can result in eye strain and other physical discomforts. Close attention to detail is required when reading/calibrating sensitive scientific equipment.

### **Mental Demands**

Dealing with visiting researchers can result in pressure and stress because of competing demands, tight schedules, and the reduced time available to satisfy researcher needs during the

short field season. The incumbent is faced with changing priorities, short time frames and is often required to work irregular hours including weekends and evenings. The incumbent may be asked to work long hours and/or overtime during the busiest research season. The incumbent has to deal with suppliers, which at times can result in stress due to delays in receiving supplies.

### **KNOWLEDGE, SKILLS AND ABILITIES**

- Knowledge of electronics and scientific equipment, small engine repair, building maintenance and repair, electronic equipment and its repair, power tools, and hand tools.
- Knowledge of research techniques in northern environments.
- Knowledge of various scientific disciplines.
- Knowledge of field and laboratory procedures and requirements.
- Proven experience with computers (hardware and software), as well as scientific instrumentation.
- Strong research, analytical and troubleshooting skills.
- Knowledge, background and experience in the use of word processing, spreadsheet and database software.
- Good communication skills, both oral and written, in order to generate confidence in solutions offered and technical advice given to staff and researchers when they encounter logistical problems.
- Ability to work effectively with minimal supervision.
- Strong teamwork and collaborative abilities.
- Ability to work effectively in a cross-cultural environment.
- Excellent organizational and time management skills.
- Knowledge of the local area is essential.

### **Typically, the above qualifications would be attained by:**

- A related Diploma or Technical Degree, plus 3-5 years related experience working in a northern environment.
- Outdoor technical/safety skills typically developed by 3-5 years working in remote field settings.
- Small motors repair skills, typically obtained by 5-7 years owning or working with snowmobiles, outboard motors, chainsaws, etc.
- Detailed knowledge of the regional geography, typically obtained by 5-7 years of experience in the Western Arctic region (particularly during travel by snowmobile, boat or helicopter).
- A valid Class 5 Driver's License.
- A valid firearms Possession and Acquisition License (PAL)
- A valid Pleasure Craft Operator's Card

### **ADDITIONAL REQUIREMENTS**

#### **Position Security (check one)**

- ☐ No criminal records check required
- ☒ Position of Trust – criminal records check required

- ☐ Highly sensitive position – requires verification of identity and a criminal records check

**French language** (check one if applicable)

- ☐ French required (must identify required level below)

Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

READING COMPREHENSION:

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

WRITING SKILLS:

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

- ☐ French preferred

**Indigenous language:** Select language

- ☐ Required  
☐ Preferred