## WORKSHOP - HALF DAY





# Remote Sensing for Water Monitoring

Tuesday, February 5, 2013 | 7:45 to 11:30 a.m. (half-day)

Nexen Conference Centre Plus 15 Level 801 - 7 Ave SW, Calgary

For more information visit: www.ptac.org or www.looknorth.org

# ABOUT THE WORKSHOP

### **Remote Sensing Technology Action Plan**

PTAC and LOOKNorth have developed a Remote Sensing Technology Action Plan (RSTAP) with the following objectives:

- 1. To identify remote sensing technologies that can address petroleum industry challenges;
- 2. To provide a neutral framework for stakeholders to exchange technical information as appropriate;
- 3. To co-fund and launch technology demonstration projects.

The initial step in the process is developing project definitions that outline petroleum industry information needs and how remote sensing could address these needs. The project definitions developed in these workshops will support Calls for Proposals (CFPs).

### **Remote Sensing for Water Monitoring Workshop**

This workshop will support a CFP planned for May 2013 which will be jointly funded by LOOKNorth, PTAC and industry.

The main focus of this workshop will be the Water Monitoring Project Definition. The workshop will:

- present information gaps identified to date;
- highlight three project concepts (monitoring by satellite-borne sensors, airborne sensors and in-situ sensors) to address those information gaps;
- present a case study of an existing remote sensing water monitoring project (outside the oil industry);
- invite feedback and solicit interest in funding technology demonstration projects specific to petroleum industry needs.

### **Water Monitoring Project Definition**

Presently ground and surface water flows are typically monitored using in-situ surveillance stations to register hydrometric and environmental variables of interest, combined with hydrological models predicting the flow of water. Likewise, the monitoring of water quality relies on the analysis of water samples for specific water quality parameters. Remote sensing can provide cost reductions and coverage of larger areas for the systematic monitoring of environmental parameters relevant to water resources management.

The proposed project(s) will address the extraction of water parameters from satellite, airborne and in-situ platforms in support of hydrological modelling, environmental impact monitoring and compliance assurance. Water parameters include those associated with water quantity and water quality.

This project will demonstrate the ability of remote sensing to:

- Provide relevant inputs into the permitting process to standardize and expedite that process;
- Validate compliance with regulatory measures.

### Workshop Agenda

7:45am Registration and continental breakfast 8:00am Welcome (PTAC and LOOKNorth)

8:10am Introduction of participants

8:20am Introduction

Remote Sensing Technology Action Plan (PTAC)

Call for Proposal (LOOKNorth)

8:30am Outline of the Water Monitoring Project Definitions (LOOKNorth)

9:10am Case Study: Satellite-based Water Monitoring Project, Tom Hirose, Noetix Research, Ottawa, ON

9:45am Break

10:00am Feedback and discussion about the Water Monitoring Project Definitions

11:00am Brief introduction to other project definitions in development: (LOOKNorth)

• Surface cover (vegetation, footprint disturbance, wetlands, etc.)

Mammal monitoring

11:30am Adjournment

### **INQUIRIES**