

The Government of Canada announces investment in innovative mapping system for first-ever global surface water survey

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Government of Canada supports excellence in a key technological capability

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The Honourable Kevin Sorenson, Minister of State (Finance), and Member of Parliament Michael Chong (Wellington–Halton Hills), on behalf of the Honourable James Moore, Minister of Industry, today announced that Canada, through the Canadian Space Agency (CSA), is investing in Canadian innovation that will play a key role in the first-ever global survey of surface water.

The Georgetown-based manufacturer, Communications and Power Industries Canada Inc. (CPI Canada), will receive \$3.3 million to develop the Extended Interaction Klystron (EIK), a satellite radar component that will generate pulses used to gather surface information. This investment will support local high-technology jobs and economic growth while the resulting information could help Canada more efficiently manage water resources, prepare for potential flooding, and help avoid costly damage from flooding or drought. The Surface Water and Ocean Topography (SWOT) mission will survey 90 percent of the globe, studying the Earth's lakes, rivers, reservoirs and oceans. SWOT data could lead to improvements in many water-related services in Canada, including operations at sea and water management systems, and will provide measurements for lakes and rivers in Northern Canada for which none currently exist.

Through this project, the Government of Canada is supporting excellence in a key technological capability and positioning Canada's private sector at the forefront of space activities, key principles of Canada's Space Policy Framework announced by the Honourable James Moore, Minister of Industry, on February 7 of this year.

Quick Facts

- Data gathered through SWOT will support Canada's need for high-resolution water data of our waterways and oceans.
- SWOT is currently scheduled to launch in 2020.
- SWOT will inventory over one million lakes, water bodies and the discharge of all major rivers in Canada. Only 15 percent of lakes around the world are currently measured from space.
- SWOT will measure the oceans' surfaces with a resolution 10 times better than the current space systems. This will allow scientists to study small-scale features that are key components of how heat and carbon are exchanged between the oceans and the atmosphere.
- SWOT is being jointly developed by NASA and the French Space Agency (CNES), with solicited contributions from the CSA and United Kingdom Space Agency.

Quotes

"The Government of Canada is proud to support this world-class innovation, which will provide Canada with invaluable information on the water spanning our vast country. By learning more about our resources, we can more efficiently manage our water, prepare for potential flooding, and help Canadians avoid costly damage from flooding or drought."

- *Kevin Sorenson, Minister of State (Finance), on behalf of James Moore, Minister of Industry*

"For Canada, which has coasts on three oceans as well as an estimated three million freshwater lakes across the country, participation in this program just makes sense. This important innovation created right here in Georgetown will play a key role in the SWOT mission and could help us better manage one of the most important resources. For Canada especially, this mission will give us

new and valuable data on the many lakes which have been largely unstudied up to now."

- *Michael Chong, Member of Parliament, Wellington-Halton Hills*

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