INO
CHALLENGING LIGHT
FOR OUR PARTNERS

SPATIAL MICROBOLOMETRIC RADIOMETERS

Over the years, INO has built a solid reputation in the field of infrared technology, particularly in the area of uncooled sensors. In 2006, the Argentine Space Agency (CONAE) and the Canadian Space Agency (CSA) entrusted INO with a major technology R&D project worth $3 million. Our mission is to design and produce microbolometric radiometers in the medium and thermal infrared able to provide, from space, temperature data for the surface of the ocean and to monitor thermal events such as forest fires and volcanic eruptions as part of the AQUARIUS/SAC-D international space mission.

The microbolometric sensors and radiometers developed jointly by INO and the Canadian Space Agency will be integrated into an Argentine satellite to be launched into orbit by NASA in May 2010 from the Vandenberg U.S. Airforce base in California.

"The microbolometric radiometers developed by INO are the first uncooled radiometers specifically designed for a space application to be put into orbit"

In collaboration with the Canadian Space Agency, INO developed spatial microbolometric radiometers capable of measuring the absolute temperature of the Earth's surface via satellite. They will be integrated into the NIRST (New Infrared Sensor Technology) instrument, a thermal camera jointly developed by CONAE and CSA. From space, the satellite-based radiometers will enable Argentine and Canadian scientists to take ocean surface temperature measurements and identify thermal events such as forest fires and volcanic eruptions. Such data is essential to predicting the mass of greenhouse gases generated by these events.

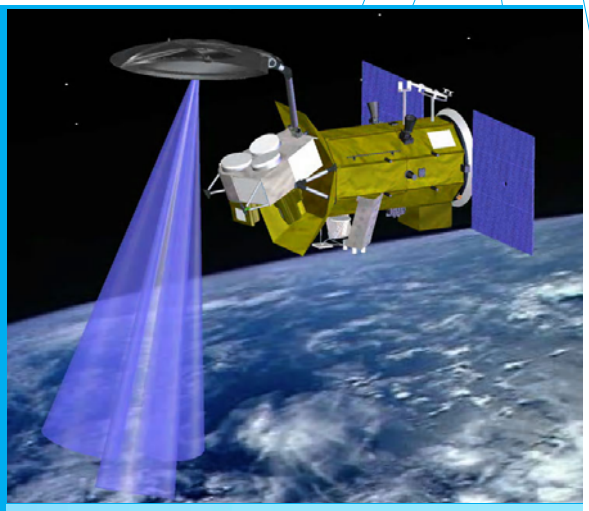

Photo: NASA, CONAE

PRM-090065

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SPATIAL MICROBOLOMETRIC RADIOMETERS

PRODUCTION

.INO (National Optics Institute), Quebec, CANADA) >> **WWW.INO.CA**
.CSA (Canadian Space Agency, Quebec, CANADA) >> **WWW.SPACE.GC.CA**

CLIENTS

.Argentine Space Agency (CONAE) >> **WWW.CONAE.GOV.AR**
.Canadian Space Agency (CSA) >> **WWW.SPACE.GC.CA**

CONTRACT AMOUNT

. CDN $3 million

DURATION OF WORK

. 3 years

PERSONNEL INVOLVED

. 60 INO employees: physicists; optical designers; electronics, mechanical, and electrical engineers; and specialized technicians

APPLICATION

The microbolometric radiometers will be integrated into the NIRST (New Infrared Sensor Technology) instrument, a thermal camera mounted on a CONAE satellite as part of the AQUARIUS/SAC-D space mission. Under this partnership between the U.S. and Argentina, the satellite will be launched into orbit by NASA in May 2010 from the Vandenberg U.S. Airforce base in California.

PURPOSE

The NIRST instrument will enable Argentine and Canadian scientists to take ocean surface temperature measurements and identify thermal events such as forest fires and volcanic eruptions. Such data is essential to predicting the mass of greenhouse gases generated by these events.

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