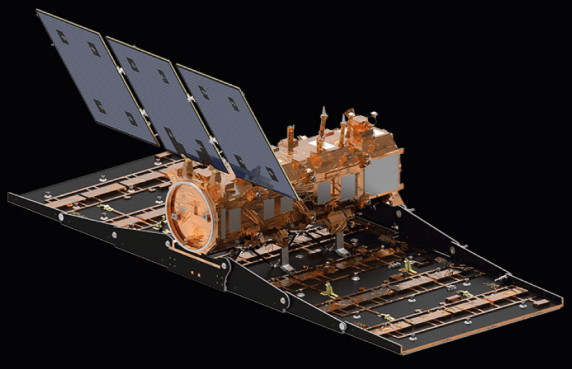
saocom®

SAOCOM® is a constellation of two high-resolution, quad-polar SAR L-band satellites that observe the Earth night and day specific weather conditions. SAOCOM® is part of the SIASGE.



SAOCOM 1A
launched in October 2018

SAOCOM 1B
will be launched in early 2020

TECHNICAL CHARACTERISTICS

Instrument
Polarimetric L band SAR

Space resolution
10 to 100 m

Range of angles incidence
20 to 50 grades

Scanning width
20 a 350 km

Orbit
Heliosynchronous
Height 620 km

Observation orientation
To the right in nominal operation way (with capacity to observe towards left)

Space repetition cycle
16 days (for each satellite)
8 day (for two satellites)

Accuracy of geographical positioning
25 m to 90 m according to processing

Average revisit
(without mode nor orientation restriction)
Better than 2 days

ACQUISITION MODES

StripMap

With Simple, Double or Quadruple Polarization

Radar points a given fix direction while picks up a continuous band corresponding to narrower and with more space resolution scannings

TOPSAR Narrow

With Simple, Double or Quadruple Polarization

Radar changes its pointing along the trace to pick up several bands, covering a greater scanning width with less space resolution than in the StripMap case

TOPSAR Wide *

With Simple, Double, Quadruple (Complete) or Compact

Radar changes its pointing along the trace to pick up a greater number of bands, covering a greater scanning width with less space resolution than in TOPSAR Narrow case

AVAILABLE POLARIZATIONS

SP

The system issues and receives in the same linear polarization

HH or VV

DP

The system issues in a linear polarization and receives two linear polarizations simultaneously

HH and VV, or VV and VH

QP

The system issues alternately both linear polarization and simultaneusly receives them

HH, HV, VH and VV

CL-POL *

System transmits a circular polarization (right or left) and receives two polarizations simultaneously

right-H and right-V or left-H and left V

** TOPSAR Wide mode with Compact polarization corresponds to a technological mode.*

APLICATIONS

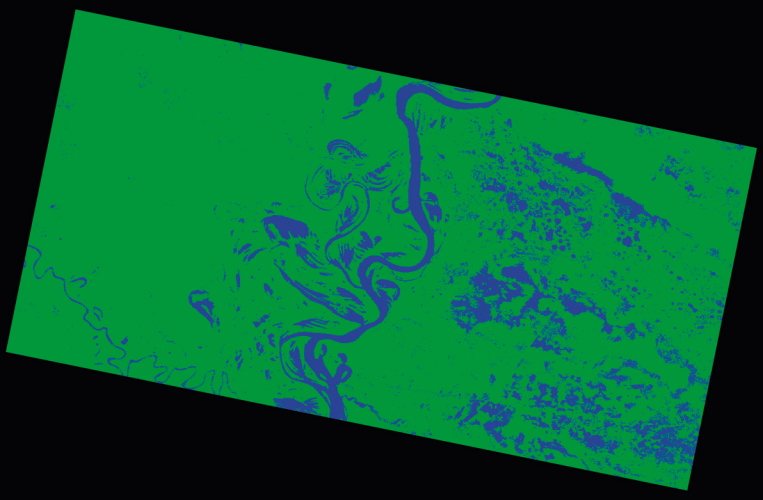
Soil Moisture Maps.

Support system for agricultural decisions sowing and fertilization.

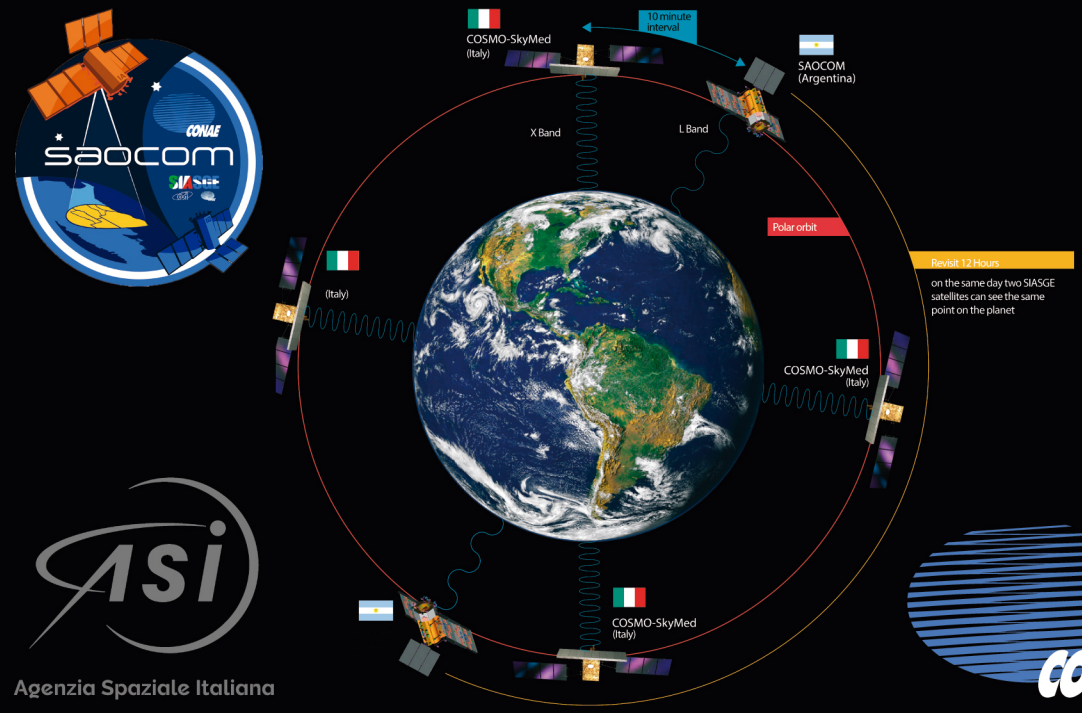
Applications in urban, security and defense studies.

Strengthening hydrological and forecast modeling capacity.

Products and services based on satellite information.



SIASGE: ITALIAN-ARGENTINE RADARS IN SPACE



Agenzia Spaziale Italiana

CONAE®

SIASGE (Italian-Argentine Satellite System for Emergency Management) Is made of two SAOCOM satellites supplied by CONAE and four COSMO-SkyMed Italian Constellation satellites, of the Italian Space Agency (ASI). This group of satellites will allow obtaining accurate and updated information about fires, floods, eruptions, earthquakes, landslides and mudslides. The 6 satellites will be placed in polar orbits at same height, in different orbital planes, so that the group works as an instrument with a huge width of vision over the Earth. An almost real time monitoring will be allowed, since an information updating will be obtained every 12 hours, especially necessary for monitoring and tracking of catastrophes evolution.

**VENG is the company designated by CONAE®
to market SAOCOM® Products.**

www.saocom.com.ar