



Earth *from* **Space**

■ ■ ■ 5 years of Proba

© ESA 2006

European Space Agency
Agence spatiale européenne



PROBA – five years at the service of ESA's Earth Observation users

ESA's Project for On-Board Autonomy (Proba) spacecraft is one of the most advanced small satellites ever flown in space. Launched on 22 October 2001 as a technology demonstration mission in ESA's General Support Technology Programme (GSTP), it is now operated under the Earth Observation Third Party Mission scheme.

Proba performs autonomous guidance, navigation, control, onboard scheduling and payload resources management.

Dimensions:

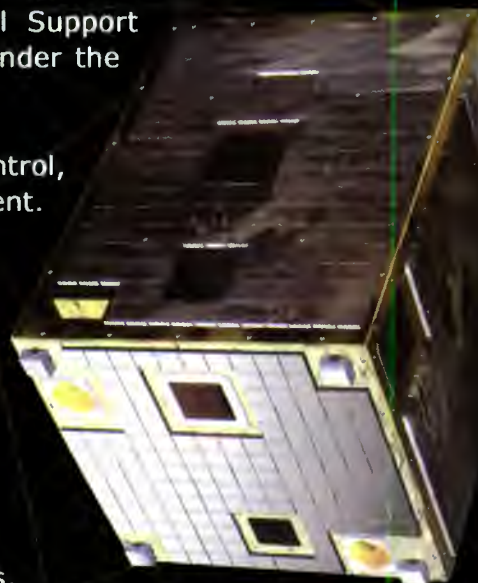
- Size: 0.6m x 0.6m x 0.8m
- Weight: 94 kg

Earth Observation instruments:

- CHRIS - Compact High Resolution Imaging Spectrometer (400-1500nm, up to 62 spectral bands, 17m spatial resolution, 13km swath, multi-angle acquisition capability)
- HRC - High Resolution Camera (panchromatic, 8m spatial resolution, 5km x 5km swath)

CHRIS and HRC data support the research of:

- 98 Earth Observation Projects
- from 26 countries worldwide
- with a variety of research topics ranging from land and biosphere over coastal and inland waters to atmosphere
- support for educational purposes and public relation activities
- more than 10.000 CHRIS images and more than 6000 HRC images in the online archive, taken together at more than 1000 sites globally



I N D E X

Lake Travis, USA	4
Page, USA	5
Lhasa, Tibet	6
Three Gorges Dam, China	7
Lady Liberty, New York	8
Etna, Italy	9
Sequoia National Park, USA	10
Monument Valley, USA	11
Kliuchevskoi Volcano, Russia	12
Gaspé-Bonaventure, Canada	13
Mt. Pinatubo, Philippines	14
Lakes in the Gobi Desert, China	15
The Second Palm Island, Dubai	16
Pyramids of Giza, Egypt	17
Kourou, French Guiana	18
Mont St. Michel, France	19
Swiss National Park, Switzerland	20
Yser, Belgium	21
Mount St. Helens, USA	22
Chobe, Botswana	23
North Sentinel Island	24
Bromo Volcano, Indonesia	25

5 years
of **PROBA**

Lake Travis, USA

5 YEARS OF PROBA



4

PROBA chris - 7 April 2006



Image width: 13 Km

PROBA chris - 13 April 2006

Lhasa, Tibet



5 YEARS OF PROBA

01

PROBA chris - 2 December 2005

Image width: 13 Km



Lady Liberty, New York

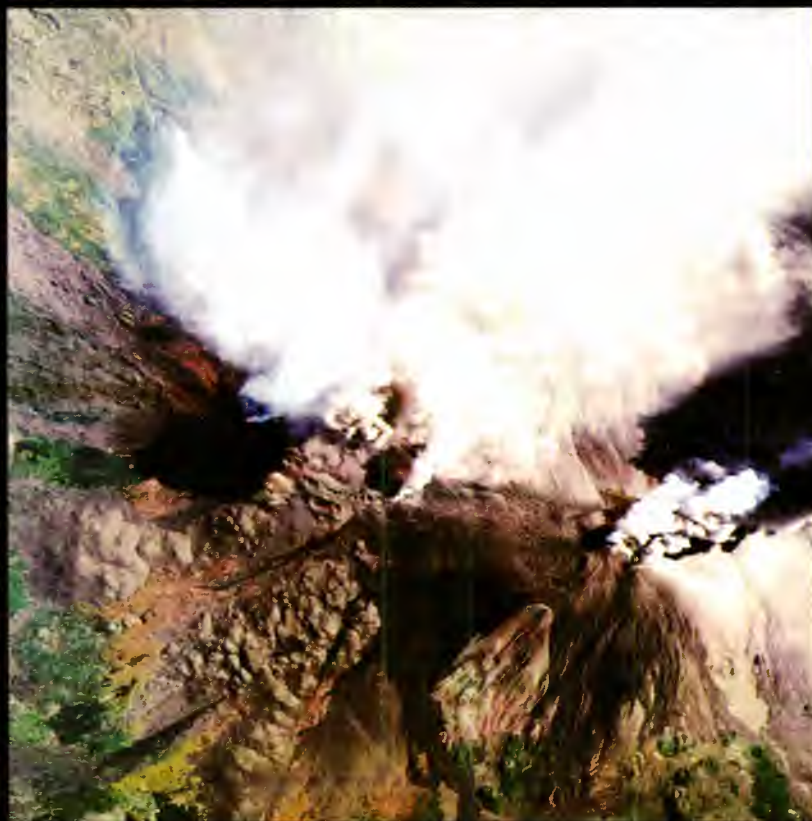
5 YEARS OF PROBA



00

PROBA hrc - 18 November 2004

image width: 5 Km



Sequoia National Park, USA



5 YEARS OF PROBA



Image width: 13 Km

Kliuchevskoi Volcano, Russia



5 YEARS OF PROBA

12

PROBA chris - 18 November 2005

image width: 13 km

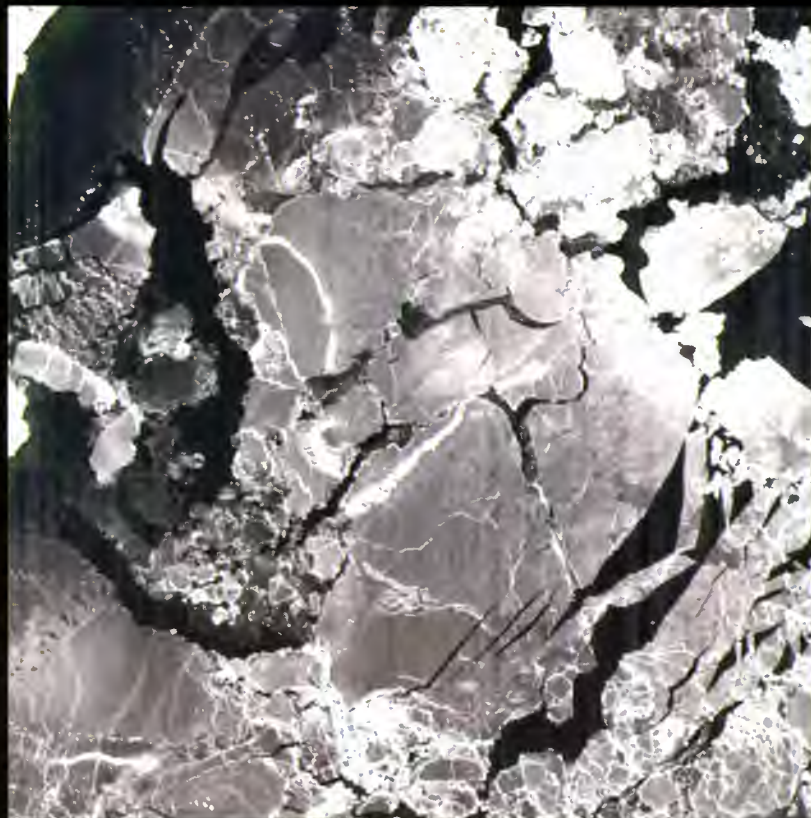


image width: 13 Km

PROBA chris - 2 March 2006

Mt. Pinatubo, Philippines

5 YEARS OF PROBA



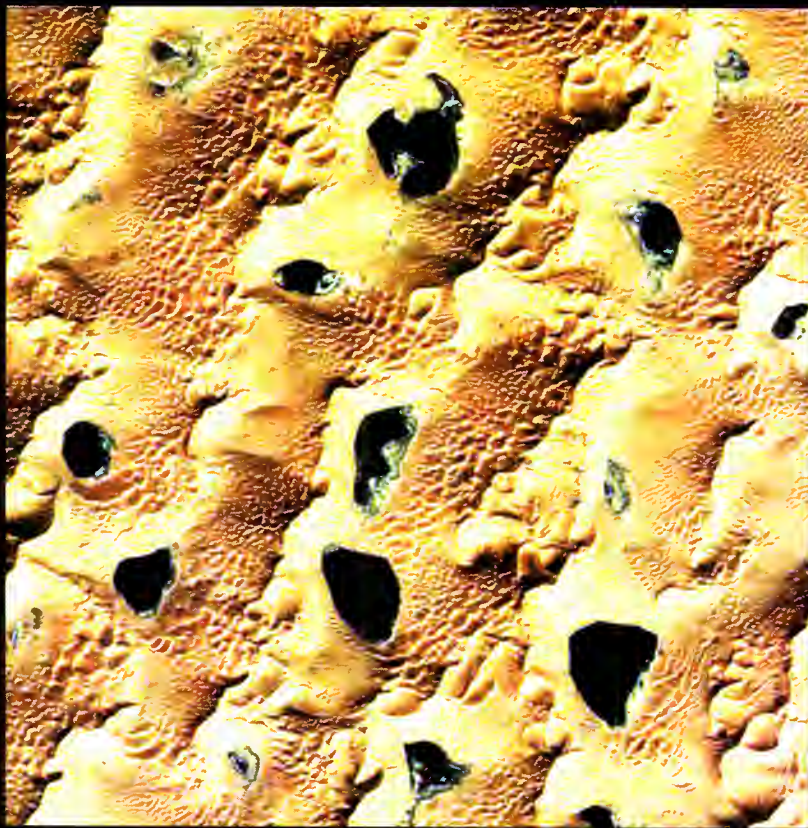


image width: 13 Km

PROBA chris - 26 September 2005

The Second Palm Island, Dubai



5 YEARS OF PROBA



















UNDERSTAND

From a vantage point high above our planet, satellites are able to provide a truly **global picture** of the **Earth**. This space-borne information can be used to monitor and measure even small changes in our **Land, Sea and Atmosphere**.

Satellites can provide us with a wealth of information on some of the most remote and inaccessible areas of the Earth, for example **the Antarctic**, where the ability of some instruments to work independently of cloud-cover and poor light conditions has distinct advantages.

In the short term, data gathered in near-real time can provide the timely and precise information needed to effectively pinpoint and manage many natural disasters, for example tracking the path of a **hurricane**, the damage extent of an **earthquake**, or the "hot spots" of a **forest fire**.

In the long term, continuous and objective satellite monitoring helps identify and assess environmental trends evolving over longer time periods, for example changes in our **ozone layer**, a rise in our **sea levels** or any gradual ground **subsidence** in our cities.

Satellite data can provide independent, operational and relevant information to support a range of policies serving sustainable development, thus making a valuable contribution to our quality of life by ensuring a better **understanding** for the **security and benefit** of our planet.



SECURE



UNDERSTAND



BENEFIT





> © SSTL, distributed
through ESA 2006

credits

Also in the same collection

- › **ESA** Member States
- › China
- › Morocco
- › Africa
- › Asia & Oceania
- › South America
- › North America
- › Deserts
- › Deltas & Lakes
- › European Union
- › Central Asia
- › Ocean & Coastal zones
- › Middle East
- › Environmental Phenomena
- › Russia



www.esa.int