

Committee on the Peaceful Uses of Outer Space: 2011 Fifty-fourth session

CHILEAN SPACE AGENCY



Gobierno de Chile





CHILEAN SPACE AGENCY **Presidential Advisory Committee**



SUPREM DECREE: No 0338 Nº 144



Presidential Mandate



- **✓** Policies
- **√** Plans
- ✓ Programs

Actions and Control

Other activities relative to space affairs

Coordination among the government organizations with competences associates to space matters.

AGENCY TO FACILITATE THE DEVELOPMENT OF SPACE AND THIS **APPLICATIONS**







CHILEAN SPACE AGENCY **Presidential Advisory Committee**

TWO LINES OF ACTION

SCIENCE AND TECHNOLOGY

SATCOM

NANOSATELLITE



MMARS



Scholarships



QOS Project



Seminars C & T



Inter. & National Coordination



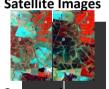


Educational Satellite Platform



EARTH OBSERVATIONS (Remote Sensing)

Civil Applications of Satellite Images



Regional Cooperation



Seminars



Support for Public Management and

BID Projects





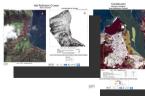




Inter. & National Coordination



Disaster Management



PROMOTING THE USE OF GEOSPATIAL TECHNOLOGIES FOR THE BENEFIT OF PUBLIC POLICY AND THE ECONOMIC AND SOCIAL DEVELOPMENT OF THE COUNTRY, INCLUDING THE REGIONAL INTEGRATION







CHILEAN SPACE AGENCY Principal Projects & Activities 2010-2011



Support for The Administration and Productive Processes

Management of Natural & Anthropic Disasters

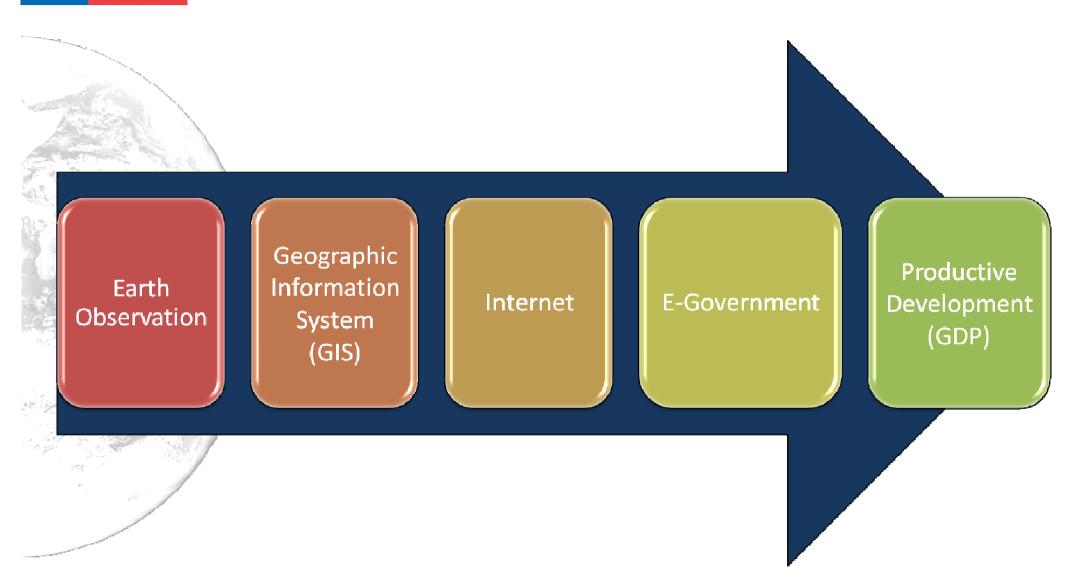
Collaboration and Joint Projects with Universities







Support for The Administration & Productive Processes





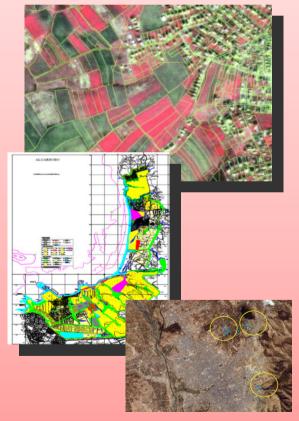




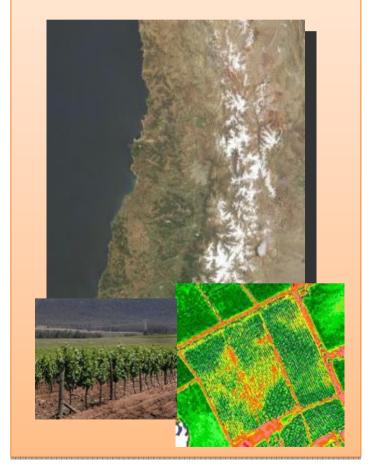
Support for Public Management & Production Processes

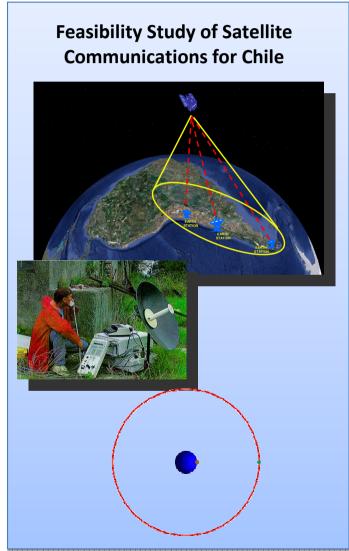
Gobierno de Chile

Support improvements in public management and optimization of production processes



Assessment and Monitoring
System Based Natural Resources
Remote Sensing









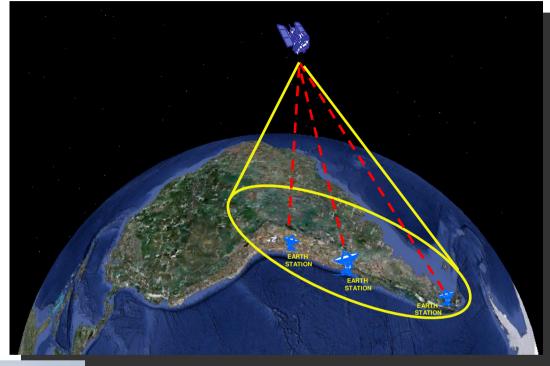


Support for Public Management & Production Processes

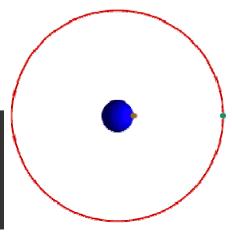
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Feasibility Study of Satellite Communications for Chile:

Technical feasibility, economic, financial and strategic, to recommend the implementation or any other viable alternative to the use of satellite communications to improve emergency communications in the country and support the community in times of crises, disasters and early warning, caused by natural and anthropic disasters or emergencies.









Support for Public Management & Production Processes

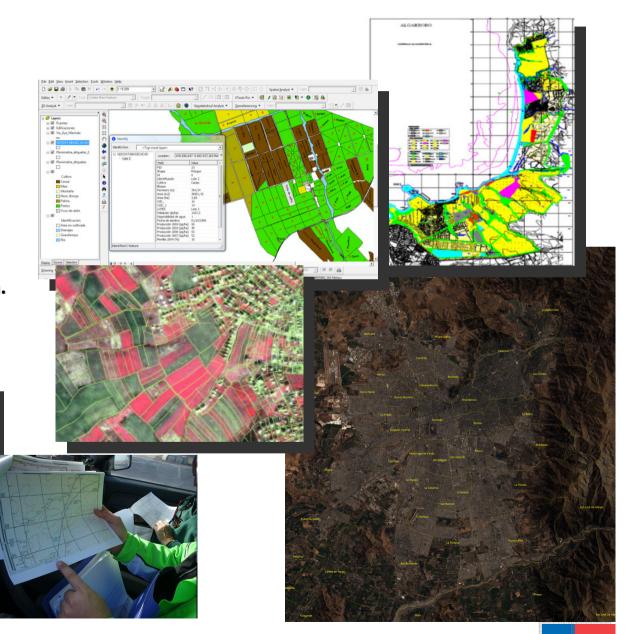
Gobierno de Chile

Support improvements in public management and optimization of production processes:

- Application in Oceanographic with Fishing Undersecretary: Coast bathymetry, microalgae, Surface Temperature in the sea, etc.

- GIS application in management administration.

- Application in Web Server with GIS and Image satellite.





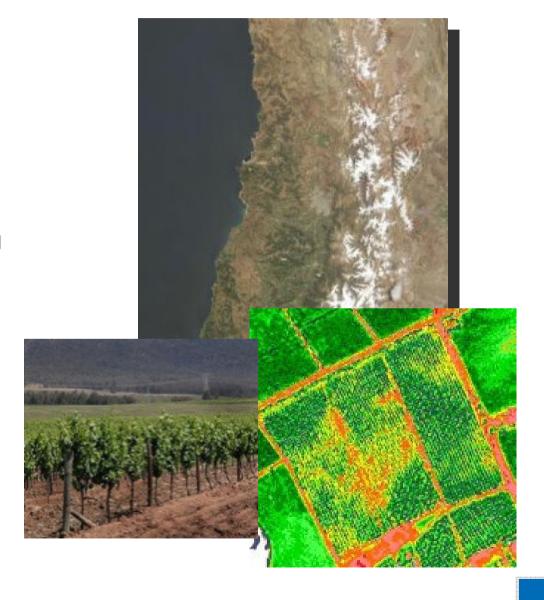


Support for Public Management & Production Processes

Gobierno de Chile

Assessment and Monitoring System Based Natural Resources Remote Sensing:

- National Agricultural Information Institute (INIA)
 Project: Harvest Predictors with Remote Sensing.
- Joint Project in Agriculture with CIREN (Center of Information of Natural Resource), CONAF (Forestal National Corporation, INFOR (Forestal Institute) and others.







Support for Public Management & Production Processes

Gobierno de Chile

BID Project "PROGRAM FOR REGIONAL DEVELOPMENT STRATEGIES COMMON TO ALLOW INCREASE AGRICULTURAL PRODUCTIVITY THROUGH THE USE OF SATELLITE INFORMATION PROCESSED:

Regional Project:

- -Argentina (CONAE)
- -Chile (ACE)
- -Paraguay (CONACYT)
- -Uruguay (INIA)

The purpose of the program is to promote and expand access to and use of satellite information source, applied to agriculture and related businesses. The purpose is to set up a home network of satellite information for agricultural use collectively between institutions in Argentina, Chile, Paraguay and Uruguay.







Management of Natural & Anthropic Disasters

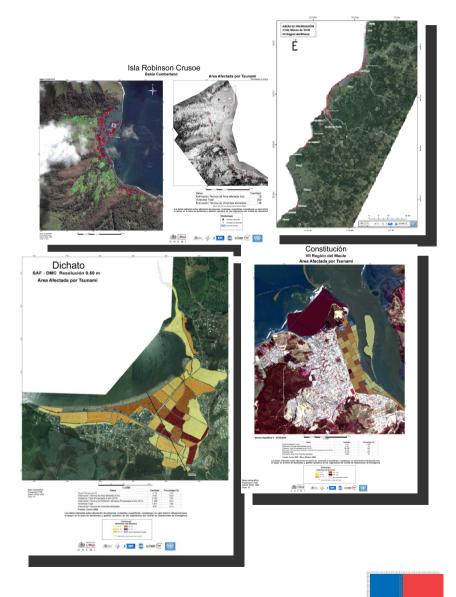
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Multi-Sectorial Working Group Geospatial Information Earthquake in Chile: 27th February

Objective:

Coordinate the exchange, integration, processing and analysis of geospatial information between different public, private and academia to support the authorities in emergencies and natural disasters.









Management of Natural & Anthropic Disasters

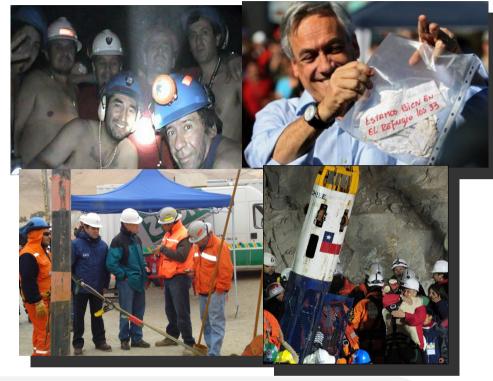
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EMERGENCY COOPERATION IN SAN JOSE MINE

Through coordination of the Chilean Space Agency, together with the Ministries of Mining and Health, the visit of a team of NASA experts to cooperate in the rescue activities of the 33 miners trapped in the San José Mine was coordinated. This mainly to deliver their expertise in health of isolate astronauts.



IN 2011: 17th March - Seminars in Chile

The purpose of this seminar is to review the lessons learned from the emergence of the trapped miners at the mine San Jose and review the similarities of this with other activities in inhospitable environments such as space travel









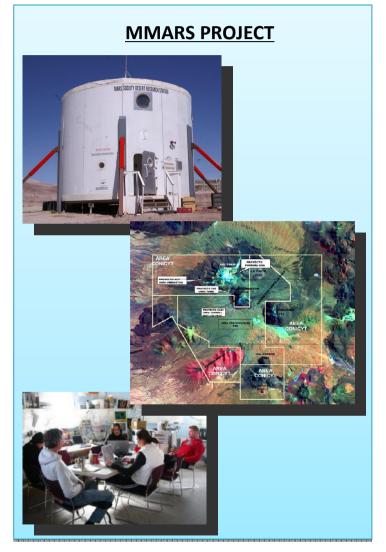
Collaboration and Projects with Universities

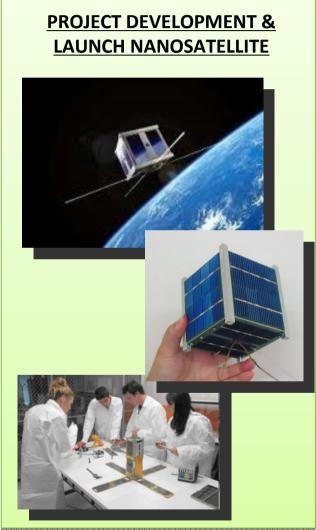
Gobierno de Chile

QOS PROJECT

Working with the Russian Space Agency for technology transfer with Chilean Universities













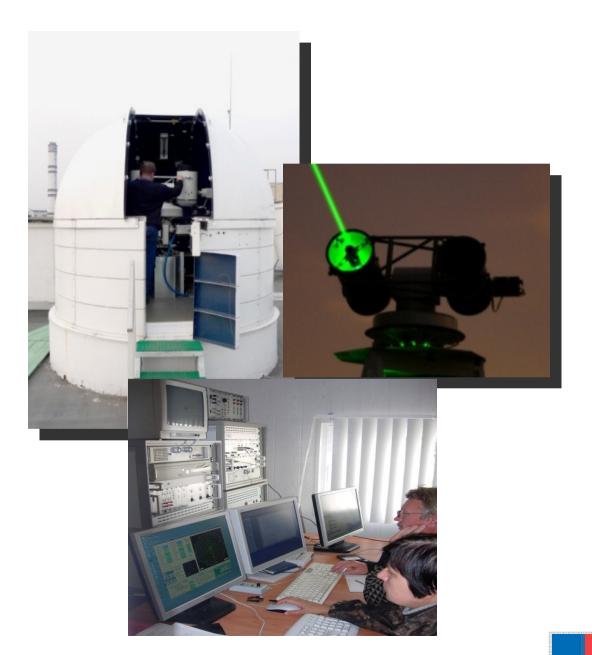
Collaboration and Projects with Universities

QOS PROJECT (Quantic and Optical Systems)

Working with the Russian Space Agency for technology transfer with Chilean Universities.

QOS: Development of satellite tracking system using laser device.







Collaboration and Projects with University of Antofagasta

Gobierno de Chile

MMARS PROJECT:

Creation of a scientific - technological and educational/tourism complex, specialized in testing research protocols, and testing of technological developments -and their applications-related to the exploration of Mars and the Moon in the Atacama Desert, also taking initiatives for outreach, education and special interest tourism.



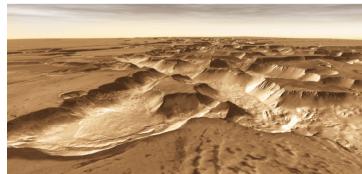
Atacama Deserts Surface





Mars Surface

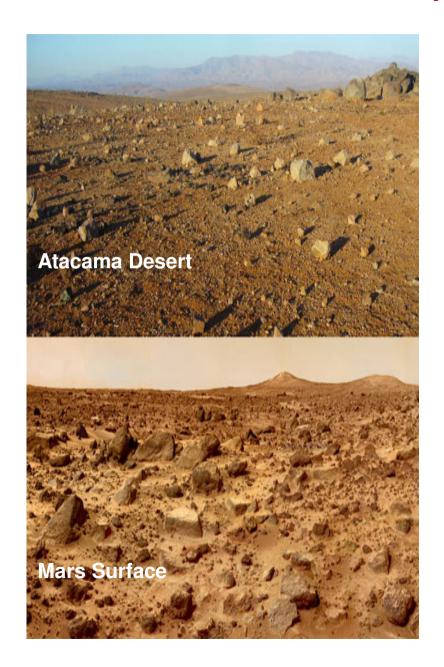








Collaboration and Projects with University of Antofagasta





Why Chile?

The Atacama Desert is known to be the dryest place on the planet. On it's surface, the extreme temperature oscilates from -25° C (Winter on Ollagüe) to 45° C (under solar radiation in summer), very low humidity, high UV radiation and strong winds.

Are these conditions what makes it very similar to the surface of Mars, being the primary reason for installing the complex Moon-Mars; an international scientific-technological complex which aims to conduct scientific research of protocols and testing of technological developments and applications associated with the exploration of Mars and the Moon.

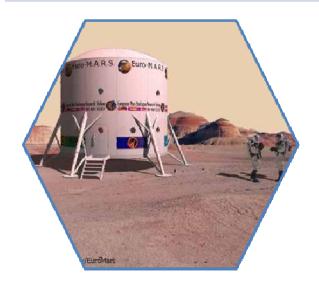
Collaboration and Projects with University of Antofagasta

First Stage: Environment Habitat Simulation.

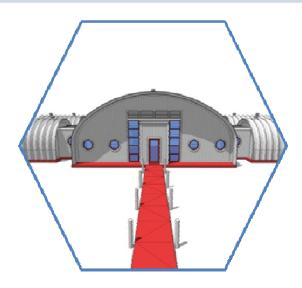


The result of this stage will be the enablement and construction of the Habitat and Base Camp, located in Yungay at 80 kms SE of Antofagasta, where crews will simulate conditions of isolation and operational autonomy, and testing of technology related to space missions.

The lines of technology development includes Terraformation Research ,Astrobiology Rsearch and Extreme Conditions Medicine Research







Collaboration and Projects with University of Antofagasta

Second Stage: Educational Innovative Center



This stage considers the creation of the Educational Innovative Center, in the Corporate building inside the Coloso Campus of the University of Antofagasta.

The purpose of this center is to measure the quality of educational establishments of northern Chile and involving space educational programs that has the potential to inspire and improve the quality of the education that students are currently receiving.







Collaboration and Projects with University of Antofagasta

Third Stage: Construction of the Space Technology Testing Site



This stage considers the protocols for testing of equipment and technologies necessary for operations and external functions to the Habitat, with the robotics equipment to facilitate the taking of samples and common operations. This testing site will be located in the road at San Pedro de Atacama, in vicinity of Calama.

The principal lines of technologies development will be Robotics and Renewable Energies for institutions and companies, providing infrastructure to develop their operations in the region.









Collaboration and Projects with Universities

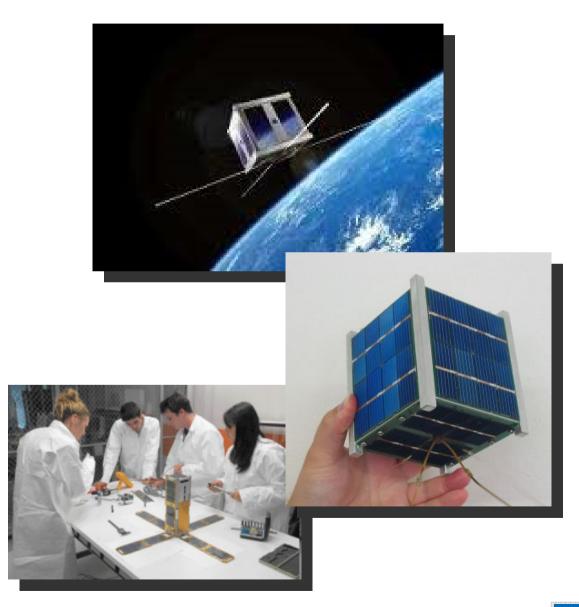
NANOSATELLITE PROJECT

DEVELOPMENT & LAUNCH NANOSATELLITE

Project developed between the ACE and the University of Chile

Will be designed according to the CubeSat standard, standard design nanosatellite (1 to 10 kg), giving a lower release cost and more frequent. Standardized interfaces that enable market provides an efficient supply of components and services.

It is currently looking for launch system







Collaboration and Projects with Universities





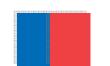
EDUCATIONAL SATELLITE PLATFORM POLILINGÜÍSTICA (SPANISH-MAPUDUNGUN-AYMARA-RAPA-NUI) FOR THE KNOWLEDGE OF HUMAN BODY AND ITS FUNCTIONS

The program seeks to educate about the human body, its value, capacities and potential, reinforcing the role of language communicator peoples. in the nation and the Chilean state and its cultural function and value-based relationship with the Spanish language.

The project is sponsored by the Chilean Space Agency and the responsible principal investigators are:

- **■**Project Director: Dr. José Luis Cárdenas Núñez, Faculty of Medical Sciences, University of Santiago de Chile (USACH) and Center for Aerospace Medicine.
- ■Prof. E. U Amalia García, School of Nursing Faculty of Medical Sciences (USACH).
- ■Prof. Elisa Loncon, Department of Linguistics. Faculty of Humanities (USACH).
- Prof. T. M. Brigita Certanec, Center for Aerospace Medicine.
- **Dr. Luis Martínez, Faculty of Medical Sciences USACH.**





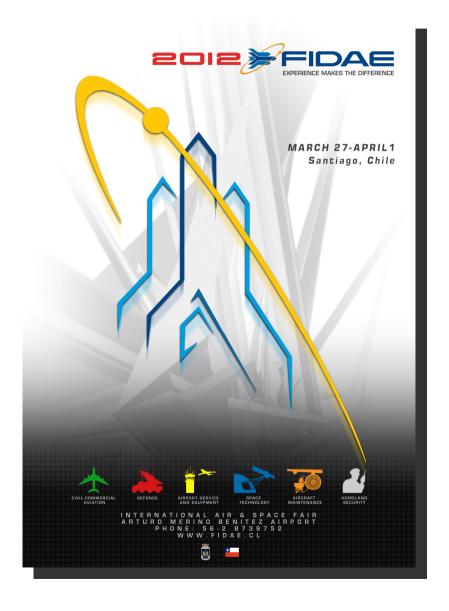


International Air & Space Fair

INTERNATIONAL AIR & SPACE FAIR

Santiago of Chile

March 27th - April 1st, 2012









International Air & Space Fair



• FIDAE, for more than thirty years, has been consolidated as the prime aerospace fair in Latin America and one of the main exhibitions worldwide.

 It is supported by the Chilean government and organized by the Chilean Air Force.

 437 exhibitors from 39 countries participated in FIDAE 2010

• It summons decision-making authorities from the aeronautic and space industry.







International Air & Space Fair



During six days, the offer and demand meet in the fair represented by the following fields:

- Civil-Commercial Aviation
- Airport Equipments & Services
- Space Technology
- Aircraft Maintenance
- Homeland Security
- Defence

It is coordinating with the ACE preparing a reunion pavilion space and international space agency directors



High-level Conferences are performed in the framework of the fair, tackling topics related to the civil aviation, airport policies and space technology, among others.

















"Chilean private cooperation in Space"



















THANK YOU!

Austria, Vienna 2-10 June 2011



