
Col. Hernan TELLO S.
Deputy Director in Space Affairs Chilean Air Force
Technical Director SNSAT Program
NATIONAL SPACE PROGRAM (SNSAT)  
Launch Ceremony  
May 26th 2021
Space:
The dimension to build a culture based on technology innovation
I. National Satellite System (SNSAT)
II. Education and Talent Promotion in SNSAT
III. “Columbia Space Lab” Program
IV. School Program - Pilot Program 2021
V. Conclusion
NATIONAL SATELLITE SYSTEM

Honor - Lealtad - Cumplimiento del deber - Excelencia en el servicio
I. National Satellite System

SUB-SYSTEMS OF THE NATIONAL SATELITE SYSTEM (SNSAT)

SUBSYSTEM 1
Geospatial Information
- North Station
- Austral Station
- National Space Center
- 2 HPC
- Service Images, Geoportal & APP

SUBSYSTEM 2
National Space Development
- AIT and local manufacturing of 7 satellites and payloads:
- Design and Develop a National Satellite Payload

SUBSYSTEM 3
National Satellites

SUBSYSTEM 4
SATCOM Service
- Dedicated SATCOM Service

Educational and Talent Promotion
- Doctor and Master Degrees
- Diplomats in Space Formation
- CAN Sat Education Program
- School Program “Columbia Space Lab”
EDUCATION AND TALENT PROMOTION

HONOR - LEALTAD - CUMPLIMIENTO DEL DEBER - EXCELENCIA EN EL SERVICIO
II. EDUCATION AND TALENT PROMOTION (SNSat)

Reducing Digital Gap
- PHD & MASTER DEGREE
- DIPLOMAT & SPACE COURSES
- SCHOOL PROGRAM COLUMBIA SPACE LAB

Reducing Technological Gap
- SEMINARS & CONFERENCES
- PAYLOAD & CANSAT PROGRAMS

DEVELOPS AXIS

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II. TALENT PROMOTION (SNSat)

TALENT PROMOTION & EDUCATION: Development Model

- Profesional Formation: PhD & Master Degree
- Postgraduate
- Payloads Development
- Scholar Programs: Columbia Space Lab

HONOR - LEALTAD - CUMPLIMIENTO DEL DEBER - EXCELENCIA EN EL SERVICIO
School Program

“Columbia Space Lab”

HONOR - LEALTAD - CUMPLIMIENTO DEL DEBER - EXCELENCIA EN EL SERVICIO
Scholar Programs: Columbia Space Lab

COL ILAN RAMON
First Israeli Astronaut

PURPOSE:

• Inspire and encourage children to learn science and explore space through practice
• Encourage soft skills and teamwork.
• Expand their knowledge and critical analysis to complete all the challenges required by mission.

Previous Experiences of Columbia Space Lab

2022:
Full Program
April - December

2021:
Pilot Program
October - December

HONOR - LEALTAD - CUMPLIMIENTO DEL DEBER - EXCELENCIA EN EL SERVICIO
School Program 2022

- 9 months (01 scholar year).
- 08 missions, (3 to 6 session by mission).
- 01 weekly online session.
- 05 students' team (up to 25 by school)
- 3 cities: Antofagasta, Santiago and Punta Arenas
- 15 schools

<table>
<thead>
<tr>
<th>#</th>
<th>MISIONES</th>
<th>temática</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>“Lying the foundation”</td>
<td>Standarization</td>
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<tr>
<td>2</td>
<td>“Husband” mission</td>
<td>Mars Challenge</td>
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<tr>
<td>3</td>
<td>“McCool” mission</td>
<td>Rob Goldberg Machine</td>
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<tr>
<td>4</td>
<td>“Anderson” mission</td>
<td>Rockets.</td>
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<tr>
<td>5</td>
<td>“Brown” mission</td>
<td>Setting mars</td>
</tr>
<tr>
<td>6</td>
<td>“Chawla” mission</td>
<td>Microgravity environment.</td>
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<tr>
<td>7</td>
<td>“Ramon” mission</td>
<td>Own mission</td>
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<tr>
<td>8</td>
<td>“Clark” mission</td>
<td>Saving the planet</td>
</tr>
<tr>
<td>9</td>
<td>Final mission</td>
<td>Colony outer the space</td>
</tr>
<tr>
<td>10</td>
<td>Final</td>
<td>Presentation</td>
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</tbody>
</table>
School Program

“Pilot Program 2021”

HONOR - LEALTAD - CUMPLIMIENTO DEL DEBER - EXCELENCIA EN EL SERVICIO
Who is it for...?
• High Schools Students, 12 – 16 years old (8º Básico a 3º medio; Chilean grades)

Challenge or Mission:
• Develop a Water Rocket
School Pilot Program 2021

How did it develop...?
• Via Teleconference, 2 times per week, with fill support of Chilean Air Force in the School

HONOR - LEALTAD - CUMPLIMIENTO DEL DEBER - EXCELENCIA EN EL SERVICIO
## School Pilot Program 2021

<table>
<thead>
<tr>
<th>Soft Skill</th>
<th>Start</th>
<th>Finish</th>
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<tbody>
<tr>
<td>1 – 5 scale</td>
<td></td>
<td></td>
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<tr>
<td>Critical thinking</td>
<td>4,0</td>
<td>4,6</td>
</tr>
<tr>
<td>Teamwork</td>
<td>3,5</td>
<td>4,5</td>
</tr>
<tr>
<td>Personal motivation</td>
<td>3,8</td>
<td>4,4</td>
</tr>
<tr>
<td>Curiosity</td>
<td>4,0</td>
<td>4,5</td>
</tr>
<tr>
<td>Challenge facing</td>
<td>4,5</td>
<td>4,9</td>
</tr>
<tr>
<td>Presentation skills</td>
<td>3,0</td>
<td>4,5</td>
</tr>
<tr>
<td>Oral, verbal, rhetorical skills</td>
<td>3,6</td>
<td>4,4</td>
</tr>
</tbody>
</table>
Conclusion

The Scientific and academic sector has a key role for national spatial development.

A new national capability requires a new concept for human capital formation and talent promotion, especially for future generations.

This program aims to lay the foundations for similar programs in other establishments in the country, in order to bring the space closer to any area of knowledge and guide an efficient use of the space.

The program allowed to improve not only scientific skills, but also soft skills such as teamwork and leadership.

Increase the areas of defense cooperation with civil society and increase civic-military relations from education and training of talent.
THANK YOU VERY MUCH


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