



LUNUS – 32 YEARS OF GOOD WORK

First steps...

Continuity...

Perspectives ...



THE COMPANY: LUNUS Comércio e Representação Ltda

With headquarters located in São José dos Campos – São Paulo State, very close to the Brazilian Space Research Institutions and Aeronautic Institutions, LUNUS also has a strong presence at Alcântara - Maranhão State, near the Satellite Launching Base, through its 22 years old branch.



Complementary, LUNUS has a presence in Natal – Rio Grande do Norte State, near the Rocket Launching Base of the Air Force, through a management office.



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LUNUS AREAS OF EXPERTISE AND MARKET SEGMENTS

□ SPACE FOCUS – Sales and Services

- TT&C stations and satellite image processing installation and maintenance (remote and/or on-site);
- Telemetry and flight termination station installation and maintenance (remote and/or on-site);
- Site survey for both infrastructure and RF interference;
- Stations middle life evaluation – diagnosis for revitalization decision;
- Sounding rocket launching infrastructure preventive and corrective maintenance focus on keeping readiness;
- Sounding rocket manufacturing facility maintenance (propellant plant);
- LUNUS also acts as an international technical-commercial representative for American and European companies in the aerospace and defense segments.



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LUNUS AREAS OF EXPERTISE AND MARKET SEGMENTS

- ENVIRONMENTAL FOCUS – Sales
 - OCEANOGRAPHY
 - METEOROLOGY
 - HYDROLOGY
 - REMOTE SENSING (SPECTROMETERS)

- ENVIRONMENTAL FOCUS – Development
 - OCEANOGRAPHY



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LUNUS Principals - Space Segment



Baron Weather, Inc.
www.baronweather.com

Radars

Since
2023



Butzbach GmbH Industrietore
www.butzbach.com

Clean Room Doors

Since
2002



Cullimore & Ring Technologies
www.crtech.com

Thermo Modeling Softwares

Since
2000



Delta Information Systems, Inc. Group
www.delta-info.com

Since
2006

- ✚ **Acroamatics Telemetry Systems Division**
<https://gdpspace.com/acroamatics/>
- ✚ **GDP Space Systems Division**
www.gdpspace.com
- ✚ **Delta Digital Video Division**
<https://www.deltadigitalvideo.com/>
- ✚ **Wideband Systems, Inc.**
<https://wideband-sys.com/>

Telemetry Subsystems, Data Records and Antennas



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LUNUS Principals - Space Segment



NEXEYA
HENSOLDT Group
www.nexeya.com

Since
2009

Telemetry Data Acquisition and Processing Systems



OTB – On The Border, LLC
www.on-the-border.com
LUNUS American Distributor

Since
2011



SAFRAN Data Systems
www.safran-electronics-defense.com
Ground and Onboard Telemetry Systems

Since
2004



SeaSpace Corporation
www.seaspace.com
Remote Sensing Ground Stations

Since
1999



WV Communications, Inc.
www.wv-comm.com
Flight Termination Systems

Since
2016



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Systems Installation and Maintenance

Scope:

Ground Stations and their Equipments



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LUNUS AS AN ENGINEERING SERVICE COMPANY

INPE - Brazilian National Institution for Space Research

Corot Mission

CoRoT (COnvection **RO**tation and planetary Transits) is a space observatory mission led by CNES in conjunction with ESA and other international partners, among them Brazil/INPE. The mission's two objectives were to search for extrasolar planets with short orbital periods, particularly those of large terrestrial size, and to perform asteroseismology by measuring solar-like oscillations in stars.

- Launch date December 27, 2006
- Launch mass 630 kg; Payload mass 300 kg
- Dimensions 2 m x 4 m



Notícias

Estação de Alcântara registra 1ª passagem do satélite CoRoT

28/12/2006 *Alcantara Ground Station registers Corot Satellite 1st passage (Dec.28th.2006) → INPE Website*

Quase seis horas e meia após seu lançamento com sucesso no dia 27 de dezembro de 2006, a partir da base de Baikonur, no Casaquistão, o satélite científico CoRoT (Convecção, Rotação e Trânsitos planetários) foi rastreado pelo Brasil em sua primeira passagem sobre Alcântara, no Maranhão. Das 20h56 às 21h11 GMT (18h56 às 19h11 - horário de Brasília), a passagem do satélite foi rastreada pela equipe da Estação Terrena de Alcântara, do Instituto Nacional de Pesquisas Espaciais (INPE).

Corot Satellite ELTA TT&C Ground Station - French-Brazilian Program Representation , Civil Work and Installation → 2003-2006

Brazil Northeast – INPE – Alcântara - MA



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LUNUS AS AN ENGINEERING SERVICE COMPANY

INPE - Brazilian National Institution for Space Research

S-Band Sparte Antenna - ϕ 3m
*Site Survey and Installation under
LUNUS responsibility*



FORMOSAT-7/COSMIC-2 Constellation

- U.S. agencies and Taiwan are the responsible for **FORMOSAT-7/COSMIC-2** constellation, that will have six satellites into low-inclination orbits launched in late 2015, and another six satellites into high-inclination orbits in early 2018.
- **COSMIC-2** is intended to collect a large amount of atmospheric data for meteorological, climatic, ionospheric, and geodetic research, as well as for weather forecasting and space weather monitoring. The system will also allow scientists to collect data over un-manned and remote regions (such as the poles and oceans) in support of research in these areas.

<http://www.cosmic.ucar.edu/cosmic2/>



**Cosmic-2/Formosat-7 Constellation - SAFRAN Ground Station
Representation and Installation → 2013-2016**

Brazil Center – INPE – Cuiabá - MT



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LUNUS AS AN ENGINEERING SERVICE COMPANY

INPE - Brazilian National Institution for Space Research

GOES Satellite →
SeaSpace GEO Antenna &
Processing System - ϕ 2.4m
Installation under LUNUS responsibility



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GOES SeaSpace GEO Ground Station – Supply and Installation → 2014
Brazil Southeast – INPE – Cachoeira Paulista – SP



LUNUS AS AN ENGINEERING SERVICE COMPANY

INMET - Brazilian National Meteorological Institute



- ❑ Tracking, Reception, Processing & Distribution Bands → X/L
- ❑ Satellites: TERRA, AQUA, (MODIS), NPP, FY3-B, NOAA (HRPT), METOP (AHRPT).



SeaSpace X/L Band System – Supply, Installation and Training → 2013
Brazil Center – Brasília/Distrito Federal - DF



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LUNUS AS AN ENGINEERING SERVICE COMPANY

INMET - Brazilian National Meteorological Institute



INSTITUTO NACIONAL DE METEOROLOGIA

EXTRATO DE CONTRATO Nº 6/2015 UASG 130011

Processo nº 21160000504201551. INEXIGIBILIDADE Nº 9/2015. Contratante: MINISTERIO DA AGRICULTURA, -PECUARIA E ABASTECIMENTO. CNPJ Contratado: 61032892000105. Contratado : LUNUS COMERCIO E REPRESENTACAO -LTDA. Objeto: Contratação de empresa especializada em serviços de manutenção anual preventiva e corretiva do hardware e renovação de licenças de softwares do sistema TERASCAN instalados no INMET. Fundamento Legal: Lei 8.666/93 . Vigência: 30/11/2015 a 30/11/2016. Valor Total: R\$680.704,14. Fonte: 100000000 - 2015NE800260. Data de Assinatura: 30/11/2015.

(SICON - 08/12/2015) 130011-00001-2015NE800084



SeaSpace X/L Band System – Maintenance Contract → 2015-2016

Brazil Center – Brasília/Distrito Federal - DF



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CENSIPAM – AMAZON SURVEILLANCE AND PROTECTION CENTER



- ❑ Tracking, Reception, Processing & Distribution Bands → X/L
- ❑ Satellites: TERRA, AQUA, (MODIS), METOP (AHRPT), NOAA (HRPT).



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3 x SeaSpace X/L Band Systems – Supply, Installation & Training → 2011
Brazil Amazon Region – Manaus/Belém/Porto Velho



LUNUS AS AN ENGINEERING SERVICE COMPANY

CENSIPAM – AMAZON SURVEILLANCE AND PROTECTION CENTER



Radome Cleaning



Antenna Preventive Maintenance



Support to Users



Improvement Training



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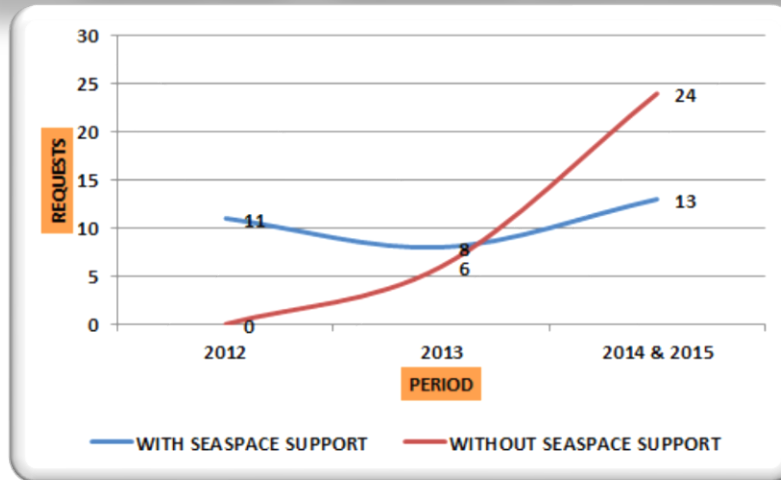


3 x SeaSpace X/L Band Systems – Warranty Period → End: 2015
Brazil Amazon Region – Manaus/Belém/Porto Velho



LUNUS AS AN ENGINEERING SERVICE COMPANY

CENSIPAM – AMAZON SURVEILLANCE AND PROTECTION CENTER



LUNUS Expertise Evolution
Technical Assistance – 3years



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CENSIPAM Belém



CENSIPAM Manaus



CENSIPAM Porto Velho

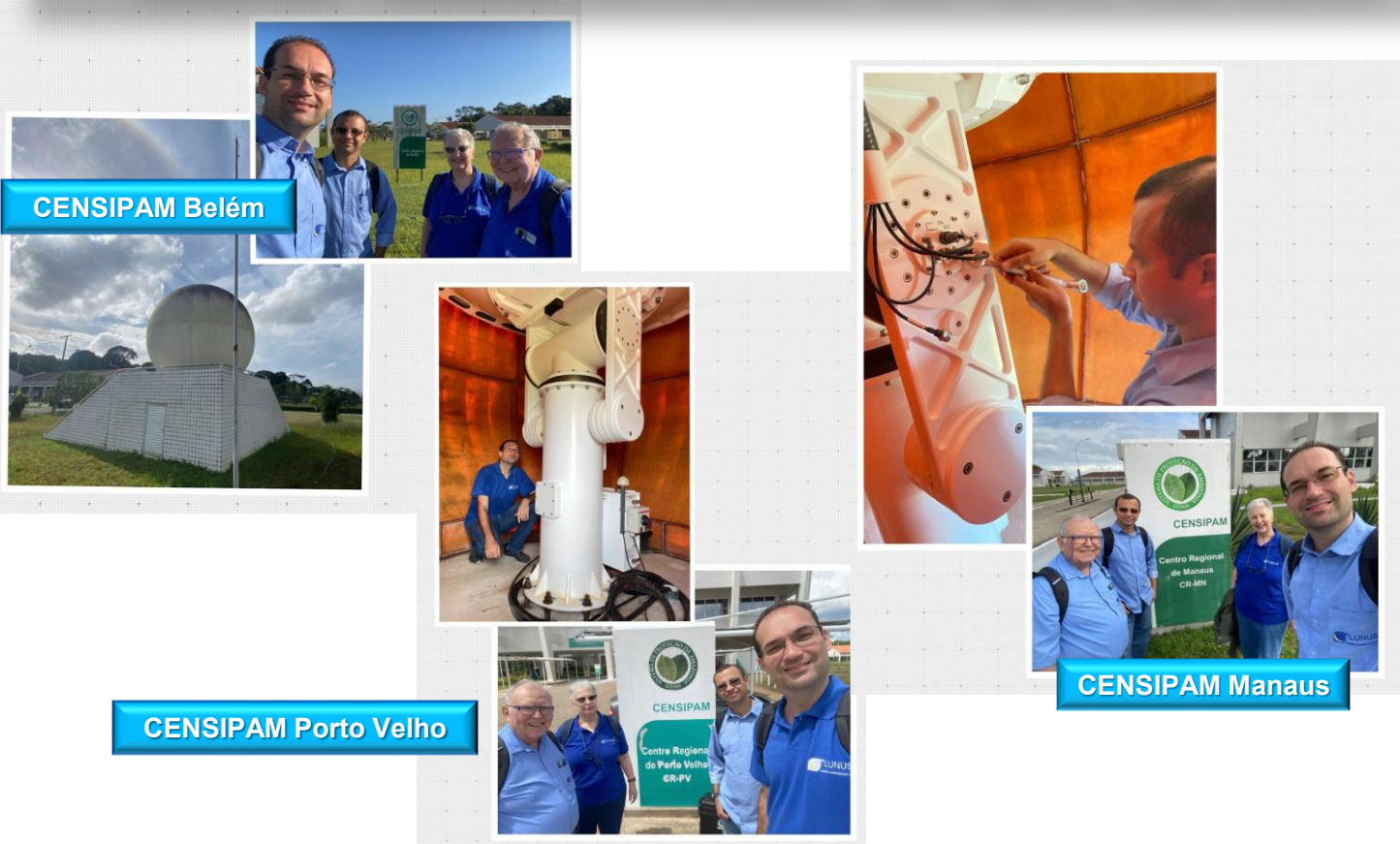
3 x SeaSpace X/L Band Systems – Warranty Period → End: 2015
Brazil Amazon Region – Manaus/Belém/Porto Velho





LUNUS AS AN ENGINEERING SERVICE COMPANY

CENSIPAM – AMAZON SURVEILLANCE AND PROTECTION CENTER



CENSIPAM Belém

CENSIPAM Porto Velho

CENSIPAM Manaus



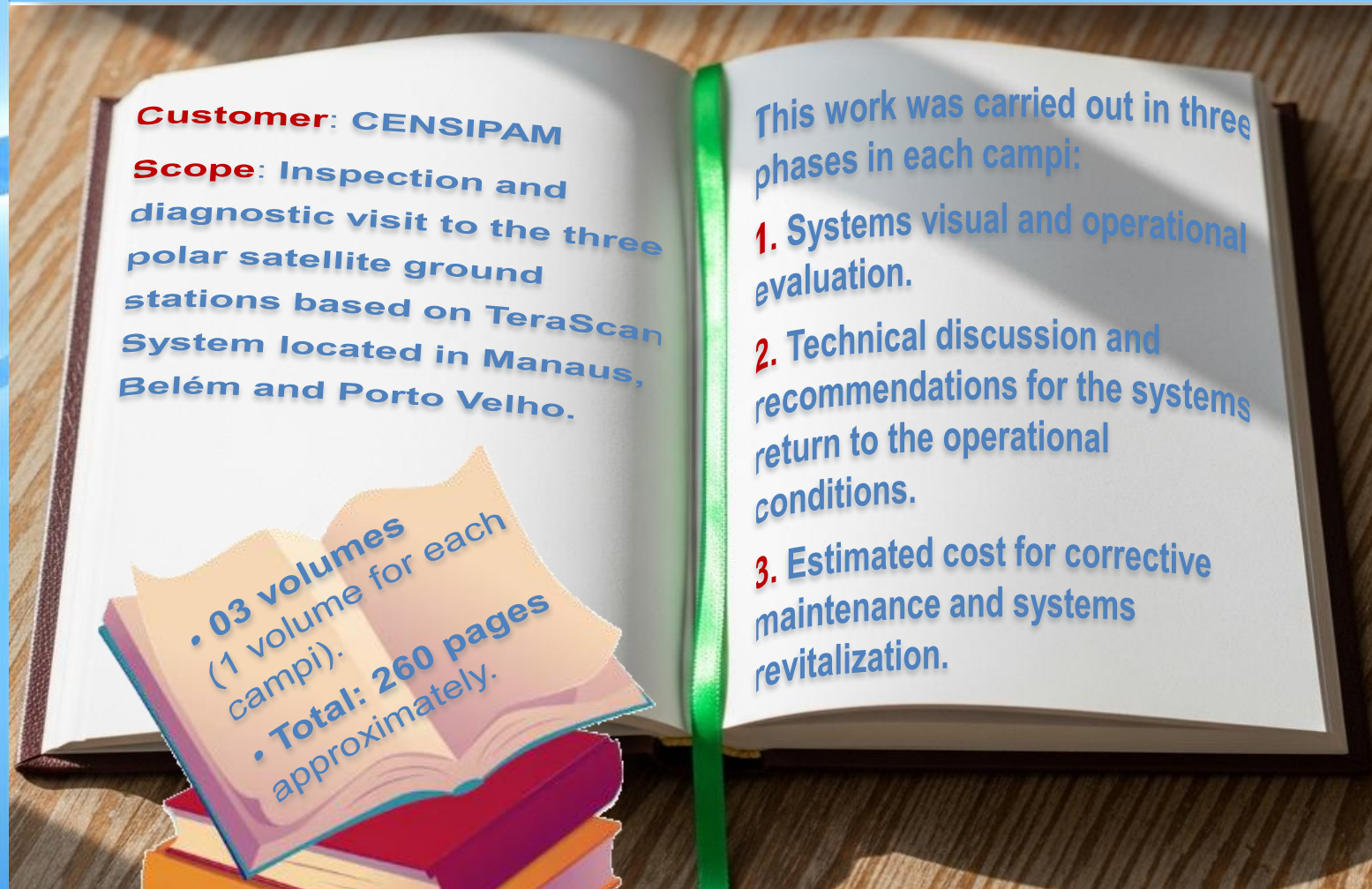
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3 x SeaSpace X/L Band Systems – Middle Life Evaluation → 2023
Brazil Amazon Region – Manaus/Belém/Porto Velho



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Customer: CENSIPAM
Scope: Inspection and diagnostic visit to the three polar satellite ground stations based on TeraScan System located in Manaus, Belém and Porto Velho.

This work was carried out in three phases in each camp:

1. Systems visual and operational evaluation.
2. Technical discussion and recommendations for the systems return to the operational conditions.
3. Estimated cost for corrective maintenance and systems revitalization.

• 03 volumes
(1 volume for each camp).
• Total: 260 pages
approximately.

3 x SeaSpace X/L Band Systems – Middle Life Evaluation → 2023
Brazil Amazon Region – Manaus/Belém/Porto Velho



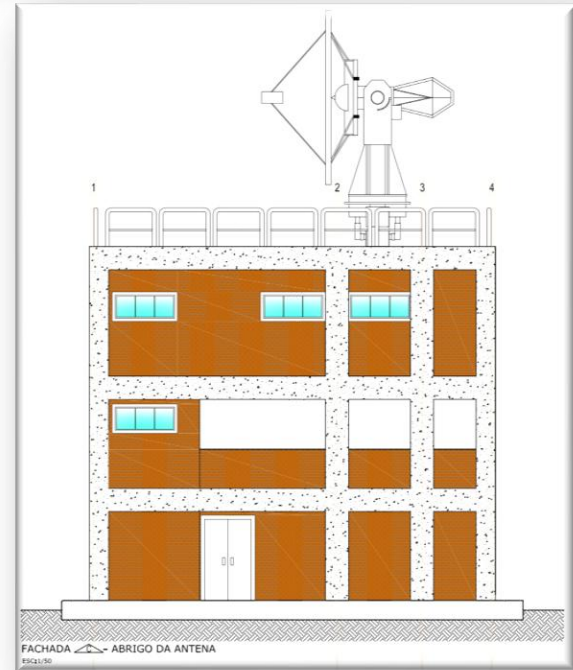
LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA – Alcântara Launching Center



Antenna - 7.3 meters diameter

- ❑ Site: CLA - Raposa/São Luis
- ❑ Start: 12th March 2014 - PO issue date



7.3m Antenna Building Project

SAFRAN Antenna ϕ 7.3 m - Representation /Installation → 2014 - 2017

Brazil Northeast – CLA – São Luis - MA



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CLA – Alcântara Launching Center



1: "Site Survey"– Jun.2014



2: "Design Review"– Jun.2014 (in France)



3: "Factory Accept. Tests"– Apr.2015



4: "Infrastructure Evaluation_2016

SAFRAN Antenna ϕ 7.3 m - Representation/Installation → 2014 - 2017

Brazil Northeast – CLA – São Luis - MA



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CLA – Alcântara Launching Center



1: Pedestal Installation Support



2: Reflector Structure Assembly Support



3: Counterweight Assembly on Pedestal



4: Reflector Assembly on Pedestal



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SAFRAN Antenna ϕ 7.3 m - Representation/Installation → 2014 - 2017

Brazil Northeast – CLA – São Luis - MA



LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA – Alcântara Launching Center



1: Power On and Tests Support



2: Tests and Operational Training



3: 7.3m Antenna - Backside



4: 7.3m Installed and Operational



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SAFRAN Antenna ϕ 7.3 m - Representation/Installation → 2014 - 2017

Brazil Northeast – CLA – São Luis - MA



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1: Rack System



2: Rack Installation



3: Antenna Installation



4: Hardware Adjustment



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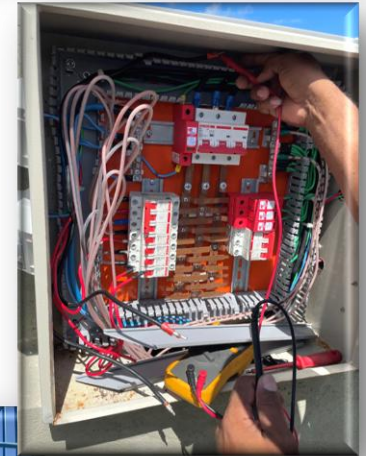
WV Communications - Flight Termination System – Installation → 2018

Brazil Northeast – CLA – Alcântara - MA



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CLA – Alcântara Launching Center



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INNOSPACE – Inspection/Cleaning/Painting - Preliminary Services Onsite

Brazil Northeast – CLA – Alcântara - MA → 2023



LUNUS AS AN ENGINEERING SERVICE COMPANY

COPE – SPACE OPERATIONS CENTER – LESSÔNIA PROJECT



1: S and X Band - Site Survey



2: Antenna Block Concrete Structure



3: Lessônia Antenna Installed



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SAFRAN Antenna

Site Survey and Infrastructure Preparation → 2021 - 2023

Brazil Center – Brasília/DF



Systems Installation and Maintenance

Scope:

Space Area



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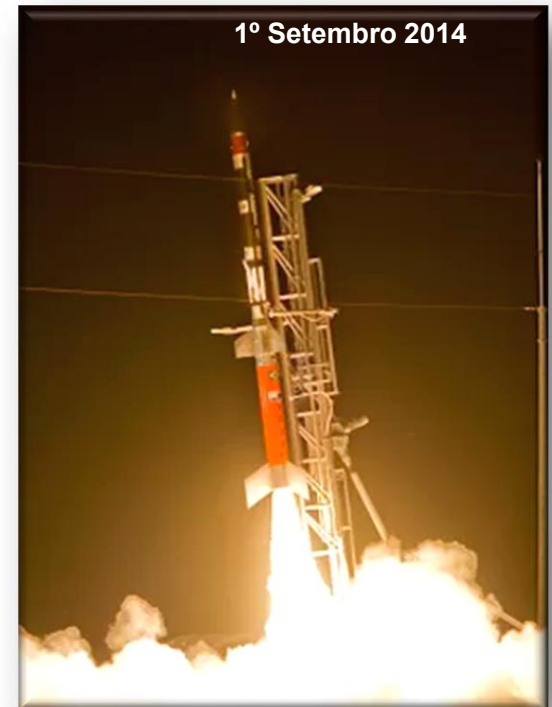




LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center

THE VS-30 ROCKET LAUNCH, AT THE END OF THE NIGHT OF SET 1st .2014 WAS ENTUSIASTICALLY CELEBRATED IN CLA. IN ADDITION TO COLLECT DATA FOR STUDIES DEVELOPED BY UFRN AND A SAFETY DEVICE FOR SPACE VEHICLES, THE OPERATION HAD AS PAY LOAD AN ENGINE DRIVEN BY LIQUID OXYGEN AND ETHANOL. ([Http://g1.globo.com](http://g1.globo.com))



CLA Medium Size Rocket Launcher



**Launcher Preparation Facilities Continuous Maintenance Services →
Sept.2010 up to Present**

Brazil Northeast – Alcântara - MA



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



VLS Mounting Platform



VLS Transportation Platform



Max Lifting : 38 m
Max Load : 2 persons

**Launcher Preparation Facilities Continuous Maintenance Services →
Sept.2010 up to Present**

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**Launcher Preparation Facilities Continuous Maintenance Services →
Sept.2010 up to Present**

Brazil Northeast – Alcântara - MA



LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



Launcher Preparation Facilities Continuous Maintenance Services →
Sept.2010 up to Present

Brazil Northeast – Alcântara - MA



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



Mechanical Shop



Launcher Preparation Facilities Continuous Maintenance Services →
Sept.2010 up to Present

Brazil Northeast – Alcântara - MA



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center

Contract Scope Systems:

- Electric;
- Automation;
- Mechanics;
- Pneumatic;
- Telephony and IT;
- CCTV
(Closed Circuit TV);
- HVAC (Air conditioning);
- Fire fighting system;
- Cleaning and gardening.



- TMI – Mobile Integration Tower
- Application: Complete Satellite Launch Vehicle Handling (max 80 tons and 30 m high.)



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Corrective and Preventive Maintenance → Sept.2013 up to Present
Brazil Northeast – Alcântara - MA



LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



“Local maintenance”
at CLA/Alcântara



“Remote maintenance”
at LUNUS/PqTec



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Corrective and Preventive Maintenance → Sept.2013 up to Present
Brazil Northeast – Alcântara - MA



LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



Corrective and Preventive Maintenance → Sept.2013 up to Present
Brazil Northeast – Alcântara - MA



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



Control Sensors Disassembling



Structural Disassembling



Truck Loading



Transportation

CLA Medium Size Rocket Launcher – LPM Retrofit → 2014/2015
Brazil Northeast – Alcântara / Maranhão State



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



Unloading at Mechanical Shop



Gearmotor Maintenance



Structural Welding/Repair



Spindle Evaluation



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CLA Medium Size Rocket Launcher – LPM Retrofit → 2014/2015
Brazil Northeast – Alcântara / Maranhão State



LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



Truck loading at mechanical shop



Arrival at CLA/Alcântara



Reassembling



Testing

CLA Medium Size Rocket Launcher – LPM Retrofit → 2014/2015
Brazil Northeast – Alcântara / Maranhão State



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center

- During the CLA first launching campaign, after the LPM retrofit, the rocket exploded still on the launcher, and seriously damaged the launcher structure.
- After this incident, CLA started a new process for the LPM rocket launcher maintenance (structural rebuild).



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CLA Medium Size Rocket Launcher – LPM Damaged → 2015
Brazil Northeast – Alcântara / Maranhão State



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CLA Medium Size Rocket Launcher – LPM Maintenance → 2016/2017
Brazil Northeast – Alcântara / Maranhão State



LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



Unloading at Mechanical Shop



Structural Repair



Structural Repair – CLA Inspection



Spindle Evaluation – CLA Inspection

CLA Medium Size Rocket Launcher – LPM Maintenance → 2016/2017
Brazil Northeast – Alcântara / Maranhão State



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center

Contract Scope: LUNUS was hired, to disassemble, transport and reassemble one mobile rocket launcher, called “Alemão”, from CLBI – Natal/RN to CLA – Alcântara/MA → ~1.500 Km distance.



Disassembling, Transportation and Reassembling → Aug.2016

Brazil Northeast – Alcântara - MA



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center

Contract Scope: LUNUS was hired to project and build the machine house for the mobile rocket launcher, called “Alemão” installed at CLA – Alcântara Launching Center.



Internal View



External View

Mobile Rocket Launcher Machine House → Nov.2016

Brazil Northeast – Alcântara - MA



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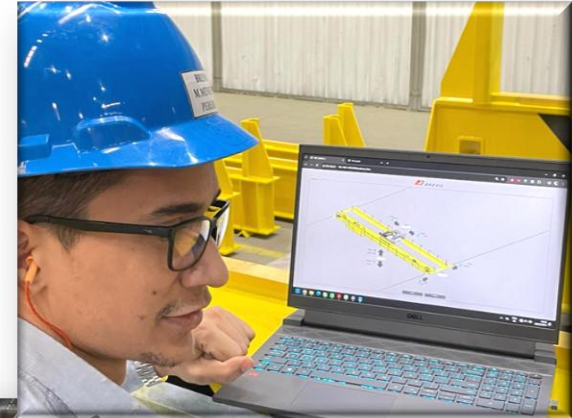


LUNUS AS AN ENGINEERING SERVICE COMPANY

CLA - Alcântara Launching Center



Testing of the 20-Ton Overhead Crane using water as load.



20-Ton Overhead Crane - Thruster Preparation Building → 2024

Brazil Northeast – Alcântara - MA



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Customer: CLA
Scope: Survey, diagnosis and preparation of an operational upgrade plan for SISPLAT and its subsystems.

This work was carried out in three phases:

- 1 - Field survey.
- 2 - Preliminary plan.
- 3 - Operational Upgrade Plan.

• 13 volumes (1 volume for each subsystem).
• Total: 500 pages approximately.



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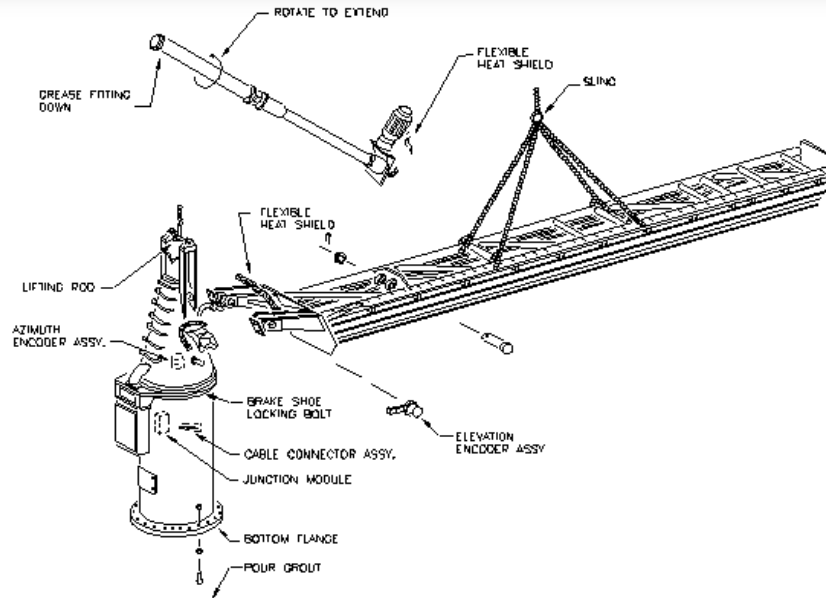


SISPLAT - Operational Upgrade Plan → Aug.2024 up to May.2025
Brazil Northeast – Alcântara - MA



LUNUS AS AN ENGINEERING SERVICE COMPANY

CLBI - Barreira do Inferno Launching Center



Max. Load: 7.5 Ton.



A complete technical documentation was provided regarding the Universal Rocket Launcher even as system as its regular maintenance procedure.

Medium Rocket Launcher – MRL Retrofit → 2009
Brazil Northeast – Natal/Rio Grande do Norte State



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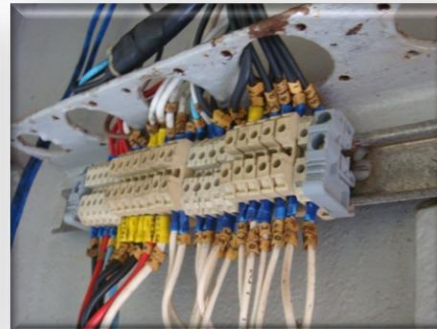


LUNUS AS AN ENGINEERING SERVICE COMPANY

CLBI - Barreira do Inferno Launching Center



Structural disassembling & Condition before retrofit & Departure from CLBI



Medium Rocket Launcher – MRL Retrofit → 2009
Brazil Northeast – Natal/Rio Grande do Norte State



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLBI - Barreira do Inferno Launching Center



Structural retrofit & CLBI fiscalization & Installation at the site



Medium Rocket Launcher – MRL Retrofit → 2009
Brazil Northeast – Natal/Rio Grande do Norte State



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLBI - Barreira do Inferno Launching Center



Max. Load: 12 Ton.



- A complete technical documentation was provided regarding the Universal Rocket Launcher maintenance procedure.
- A machine house was projected and built, tailored for the launcher movements systems.

Universal Rocket Launcher Retrofit → 2012

Brazil Northeast – Natal/Rio Grande do Norte State



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLBI - Barreira do Inferno Launching Center



Structural disassembling & Condition before retrofit & Departure from CLBI



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Universal Rocket Launcher Retrofit → 2012
Brazil Northeast – Natal/Rio Grande do Norte State



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Structural retrofit & CLBI fiscalization & Installation at the site



Universal Rocket Launcher Retrofit → 2012

Brazil Northeast – Natal/Rio Grande do Norte State



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLBI - Barreira do Inferno Launching Center



Universal Rocket Launcher Machine House → 2012
Brazil Northeast – Natal/Rio Grande do Norte State



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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLBI - Barreira do Inferno Launching Center



Contract Scope - Systems:

- Electric;
- Automation;
- Mechanics;
- Pneumatic.



Corrective and Preventive Maintenance → 2017

Brazil Northeast – Natal - RN



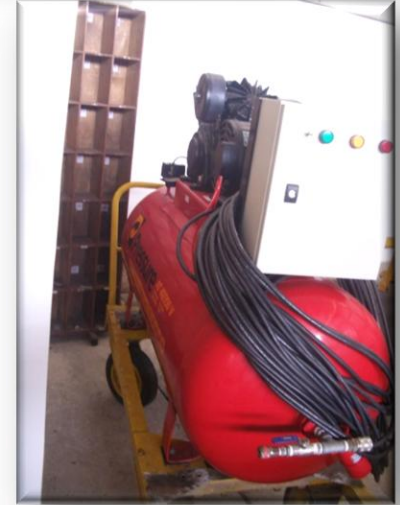
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LUNUS AS AN ENGINEERING SERVICE COMPANY

CLBI - Barreira do Inferno Launching Center



Corrective and Preventive Maintenance → 2017

Brazil Northeast – Natal - RN



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Systems Installation and Maintenance

Scope:

Propellant Manufacturing Systems



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LUNUS AS AN ENGINEERING SERVICE COMPANY

UCA – Colonel Abner Mill (DCTA)

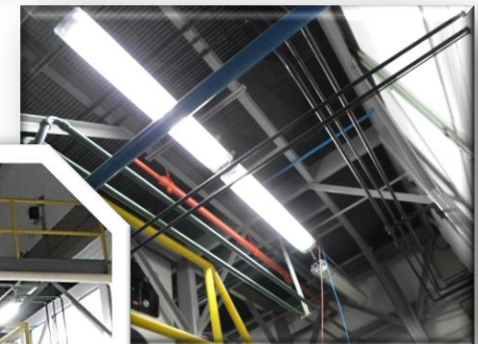
Explosion-proof Light Fixture (Luminaire) → Increased safety for explosive areas



Old Luminaires



Macerator
Division



New Luminaires



22 Explosion-proof Light Fixtures Replacement → 2016

Brazil Southeast – Jacareí - SP



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LUNUS AS AN ENGINEERING SERVICE COMPANY

UCA – Colonel Abner Mill (DCTA)

Rocket Loading Building: Loading Chamber Piston Maintenance, including the supply of repair kit, high pressure hoses and piston painting, as well as the final assembling and testing.



Corrective and Preventive Maintenance – Loading Chamber → 2016
Brazil Southeast – Jacareí - SP



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LUNUS AS AN ENGINEERING SERVICE COMPANY

UCA – Colonel Abner Mill (DCTA)

Propellant Transport Buckets
Mechanical Maintenance



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Corrective and Preventive Maintenance - Buckets → 2016
Brazil Southeast – Jacareí - SP



LUNUS AS AN ENGINEERING SERVICE COMPANY

UCA – Colonel Abner Mill (DCTA)

Electrical Pulley + Trolley Replacement

- Dual Speed Electric Pulley + Electric Trolley;
- Lifting Capacity: 5 tons;
- Lifting Height: 5 meters;
- Mechanical Support Refurbishing.



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Lifting System Replacement → 2017

Brazil Southeast – Jacareí - SP



LUNUS AS AN ENGINEERING SERVICE COMPANY

UCA – Colonel Abner Mill (DCTA)

Maintenance Service at Macerator I

Contract Scope Systems:

- Electrical;
- Hydraulic;
- Vacuum;



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Brazil Southeast – Jacareí – SP



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UCA – Colonel Abner Mill (DCTA)

Electrical System – Macerator I



Electrical System Retrofit → 2018 & 2019

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UCA – Colonel Abner Mill (DCTA)

Hydraulic System - Macerator I



1: Old System



2: Old System



3: Refurbishment



4: New System

Acquisition and installation of a new hydraulic unit → 2018 & 2019

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LUNUS AS AN ENGINEERING SERVICE COMPANY

UCA – Colonel Abner Mill (DCTA)

Vaccum System – Macerator I



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Replacement of vacuum tubing → 2018 & 2019

Brazil Southeast – Jacareí - SP





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IAE – Institute of Aeronautics and Space (DCTA)



1: Mixer



2: Hydraulic Part



3: Electrical Part



4: Operational Testing



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25-liter Propellant Mixer - Preventive and Corrective Maintenance

Brazil Southeast – São José dos Campos - SP



Systems Installation and Maintenance

Scope:

Technological Systems



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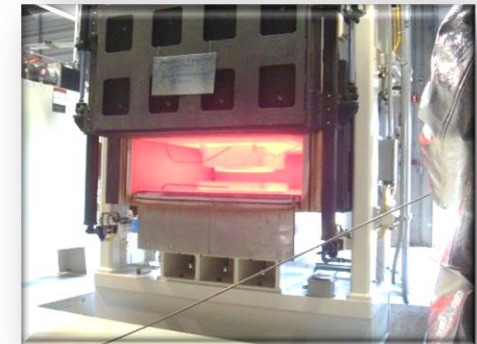
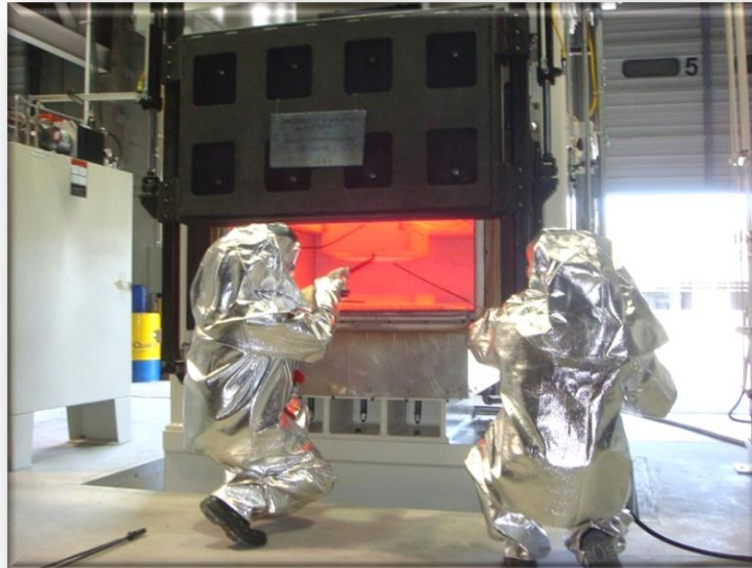
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LUNUS AS AN ENGINEERING SERVICE COMPANY

IPT/LEL – São Paulo State Technological Research Institute



- ❑ Hot Form and Superplastic Form Press, 150 Ton./1000 ° C
- ❑ Application: Lightweight Metals: Al, Ti

Accudyne Superplastic Press – Representation and Installation → 2013
Brazil Southeast – PqTec – São José dos Campos - SP



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LUNUS AS AN ENGINEERING SERVICE COMPANY

IPT/LEL – São Paulo State Technological Research Institute



Installation & Assembling Phase



Accudyne Superplastic Press – Representation and Installation → 2013
Brazil Southeast – PqTec – São José dos Campos - SP



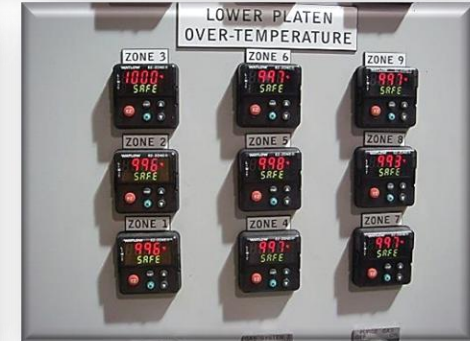
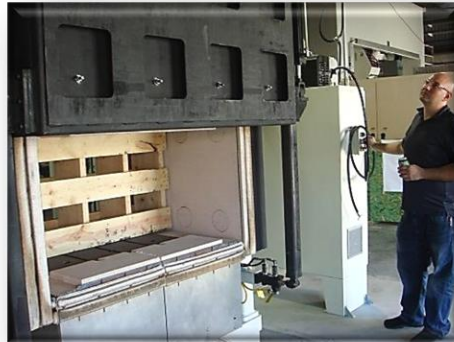
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LUNUS AS AN ENGINEERING SERVICE COMPANY

IPT/LEL – São Paulo State Technological Research Institute



Final Testing & Customer Acceptance Phase



Accudyne Superplastic Press – Representation and Installation → 2013
Brazil Southeast – PqTec – São José dos Campos - SP



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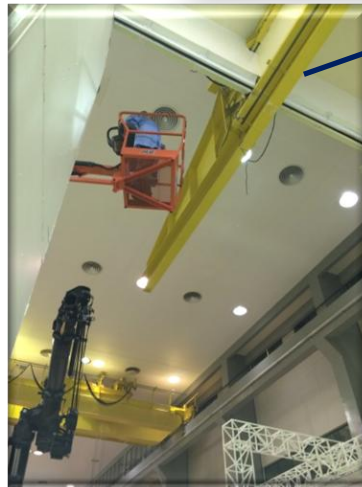




LUNUS AS AN ENGINEERING SERVICE COMPANY

INPE - Integration & Test Laboratory (LIT)

Contract Scope: Remove the monorail from LIT Space Tests
Area Cleanroom 100.000



Monorail



Winch



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Monorail Removed from LIT Cleanroom 100.000 → Nov.2014
Brazil Southeast – São José dos Campos - SP



LUNUS AS AN ENGINEERING SERVICE COMPANY

INPE - Integration & Test Laboratory (LIT)



Chamber Installation



Final Acceptance

Amazonia Satellite Solar Panel Tests → 2019
HIELKEMA Ultra Rapid Thermal Cycling Chamber

Brazil Southeast – São José dos Campos - SP



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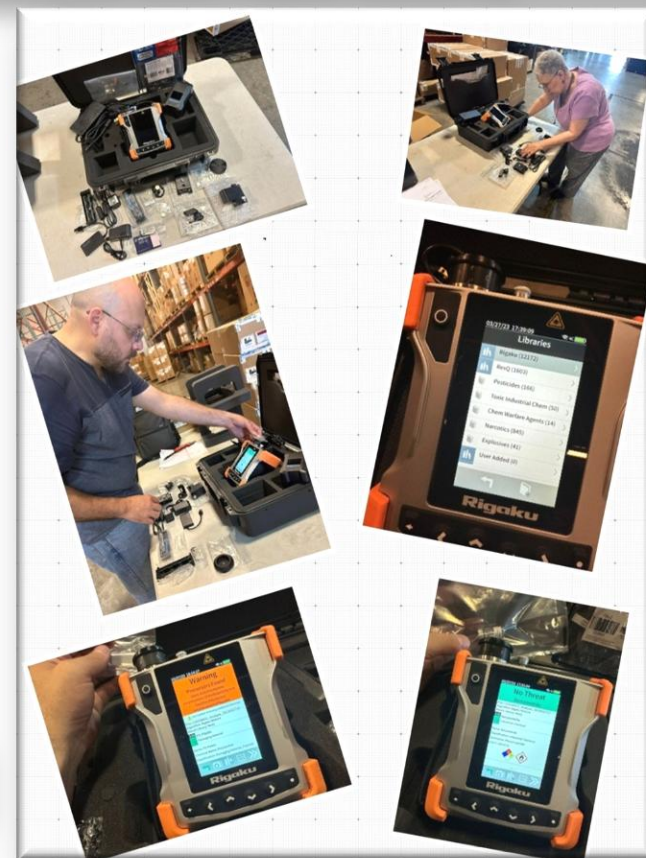


LUNUS AS AN ENGINEERING SERVICE COMPANY

Federal Police – Ministry of Justice and Public Security



Raman **ResQ CQL** Spectrometer - 39 units



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Portable Raman Spectrometer - Progeny ResQ CQL Rigaku → 2022
Several States of Brazil



LUNUS AS AN ENGINEERING SERVICE COMPANY

Federal Police – Ministry of Justice and Public Security



Raman **ResQ FLX** Spectrometer - 59 units



Portable Raman Spectrometer - Progeny ResQ FLX Rigaku → 2022
Several States of Brazil



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CLBI AWARDS...



To Company
LUNUS Comercio e Representação Ltda

Award from CLBI team for the idealism and partnership in the technology expertise progress of the Medium Class Rocket Launcher - MRL.



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Brazilian Air Force Command

Granted to Mr. Etienne Schneider Monteiro the title of Honorary Member of the Brazilian Air Force for the good services rendered to our Organization.





CLA AWARDS...



Defense Ministry → Air Force Command → Alcântara Launching Base

Title :ALCÂNTARA LAUNCHING BASE FRIEND

CLA Command in chief, based on Regulation No 05, Feb.25th.2011, grants the present title to

Etiene Monteiro Schneider – LUNUS

Based on the outstanding services provided to the Air Force Command Organization, contributing to the Brazilian Space Program success.

2011 - CLA 28th Anniversary



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CLA AWARDS...

October 14th .2016



The Alcântara Launching Base thanks to LUNUS/SPARTA for the outstanding services provided to the Brazilian Space Program .

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AEB AWARD...

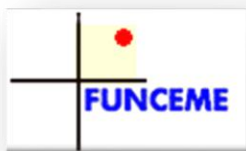


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SOME LUNUS CUSTOMERS



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LUNUS MAIN DATA

| LUNUS TEAM | |
|-------------------|---------|
| Background | Numbers |
| PhD | 01 |
| Master of Science | 01 |
| Graduate | |
| - Engineers | 11 |
| - Bachelors | |
| Technicians | 11 |
| Logistic Support | 04 |



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LUNUS Branches



Environmental
LUNUS Headquarters



Space Services
LUNUS Branch in Alcântara

American Sister Company



Brazilian Partner



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