



COLIBRI PROJECT STATUS

- TELESCOPE AITV
- DDRAGO & DDRAGUITO
- CAGIRE
- SOFTWARE
- INFRASTRUCTURE



COLIBRI PROJECT STATUS

Telescope AITV AT OHP

*Telescope, OGSE, DDRAGUITO, balancing,
software*

COLIBRI PROJECT STATUS – AITV @OHP

Several RIDs insist on the delay since the TRR:

AIT @ OHP

- May to July 2021: main period of tests.
- Data processing: summer 2021.
- Conclusion - September 2021:

issue with the telescope alignment

mechanical axe not aligned with optical axis



Good optical quality but alignment not perfect

End of September 2021

- DDRAGUITO ready for testing
- Late in the building
- Decide to refine the alignment and then test of DDRAGUITO with better performance



Astelco intervention 12/2021

New COVID episod: ≈ 5 weeks

Results are worst: *astigmatism is not within specifications*

Still under investigation

COLIBRI PROJECT STATUS – AITV @OHP

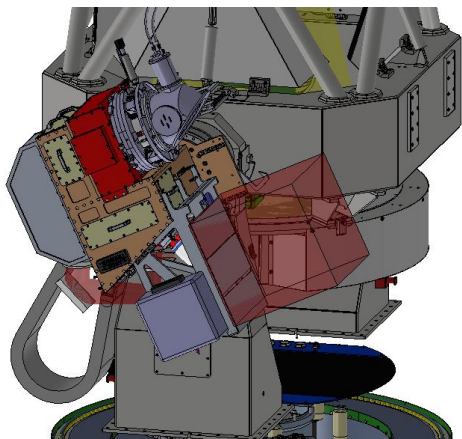
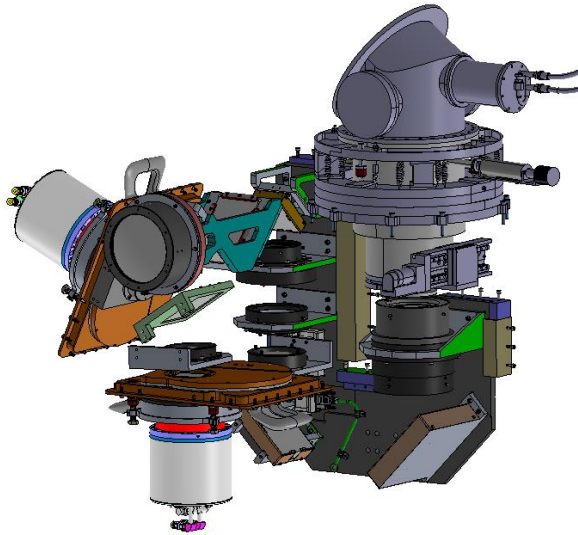
Where we are now

TASK	START	END	DURATION	STATE
TELESCOPE FINAL INSTALLATION AND COMMISSIONING <i>Telescope aligned (with M2 rotation)</i>	08/2020	End of 02/21	Astelco dependent 15 days / 15 nights	100%
TRR – Tests Readiness Review <i>Start of the AITV phase at OHP</i>	18/11/20	19/11/20	2 days	100%
TELESCOPE ALONE VALIDATION <i>With OGSE (FLI, SBIG, Manta, Shack Hartman, OGSE assembly) Included new telescope alignment and checking</i>	03/21	03/22	Weather dependent Astelco dependent (alignment) At least 50 entries in the elog About 26 nights	90%
DDRAGUITO DELIVERY AT OHP <i>Check in lab at LAM, starting at OHP, installation on the telescope</i>	04/21	03/22	3 days at LAM 10 days at OHP	90%
TELESCOPE & DDRAGUITO VALIDATION	03/22	05/22	20 nights	0%
SOFTWARE VALIDATION <i>Already in test GIC, PLC</i>	Summer 2021	05/22	10 days (in fact will start during test with DDRAGUITO)	30%
TELESCOPE ACCEPTANCE <i>before shipment to OAN</i>	06/2022		2 days	0%
TELESCOPE SHIPPING <i>Only if the building is ready at Mexico - OAN</i>	Not before July 2022		3 months	0%

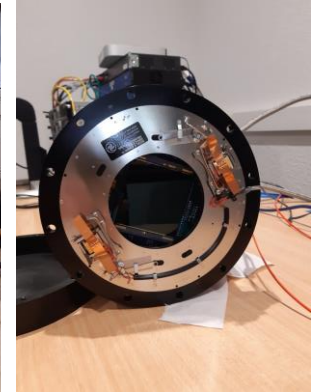
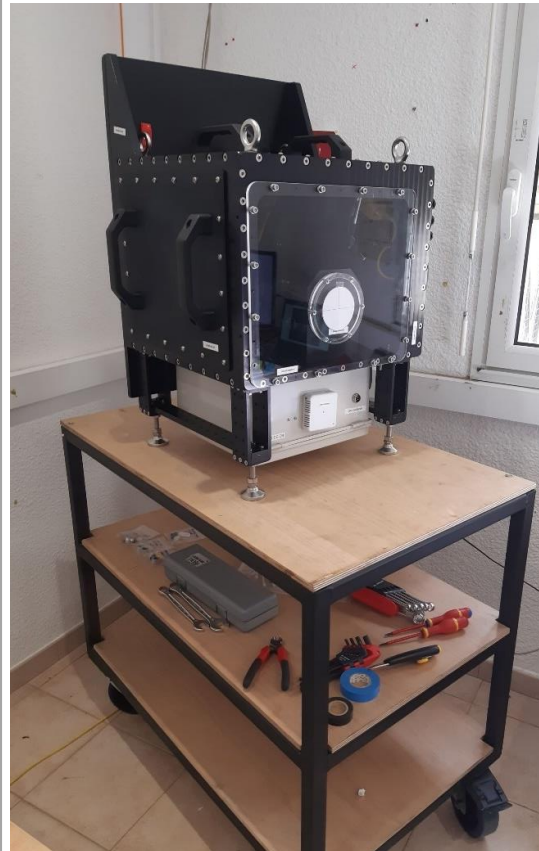
COLIBRI PROJECT STATUS

DDRAGO FDR AND DDRAGUITO TESTING @OHP

Complete instrument presented at FDR



DDRAGUITO testing @ OHP



COLIBRI PROJECT STATUS – DDRAGO Status

DDRAGO has passed the final design review.

FDR Recommendations:

- Start the outsourcing of low precision pieces (for planning issue)
- Organization ASAP of the DDRAGUITO testing @ OHP

On Going:

- Delivery of the 2nd CCD expected in June 2022.
- All optics are ordered.
- Starting of mechanical manufacturing
- Finalizing of purchases (mainly control command and subcontractors)
- DDRAGUITO return at Mexico not later than September

MAIN KEY DATES:

- DDRAGO FDR: April 2022
- **Manufacturing phase: from April 2022**
- Optics delivery at UNAM: June 2022
- AITV at UNAM: June – October 2022
- **DDRAGO acceptance at UNAM: November 2022 to March 2023**
- **DDRAGO delivery at OAN – Mexico: November 2022 to March 2023**
- **WOB delivery at OAN – Mexico: January 2024**

COLIBRI PROJECT STATUS – DDRAGUITO Status

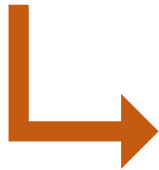
DDRAGUITO @ LAM:

- Check alignment at LAM: **OK** – *3 days in June 2021*

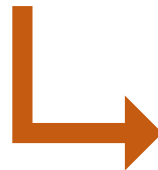
DDRAGUITO @ OHP:

10 days in September 2021:

- Computer and network installation at OHP: **OK**
- Camera cooling at OHP: **OK**
- Functional tests (filter wheel, sensors...): **OK**
- Cables routing inside the telescope: **OK**



**ONLY AFTER THE FINAL ALIGNMENT OF THE TELESCOPE.
TESTS FROM DECEMBER 2021 TO APRIL 2022**



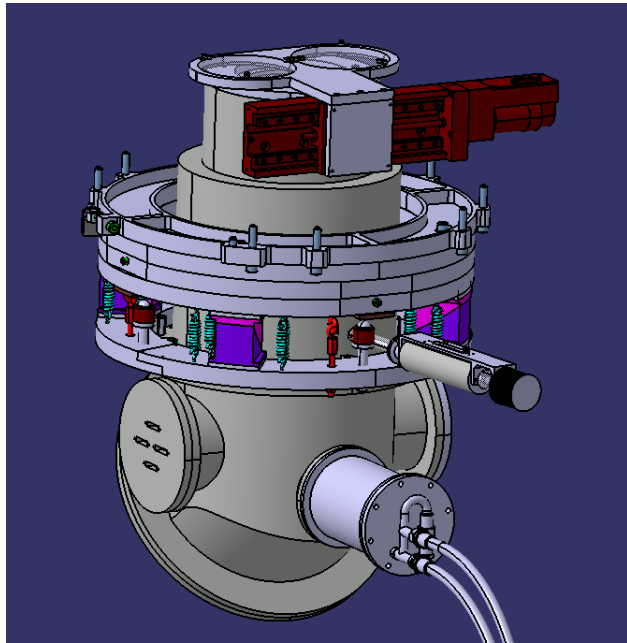
Next step: *April 2022*

- Balancing
- Installation on the telescope derotator
- Tests on sky

**ONE OR TWO COLLEAGUES FROM UNAM WILL BE FINALLY AT OHP FOR
THE INSTALLATION & TESTS OF DDRAGUITO**

COLIBRI PROJECT STATUS – CAGIRE STATUS @ IRAP

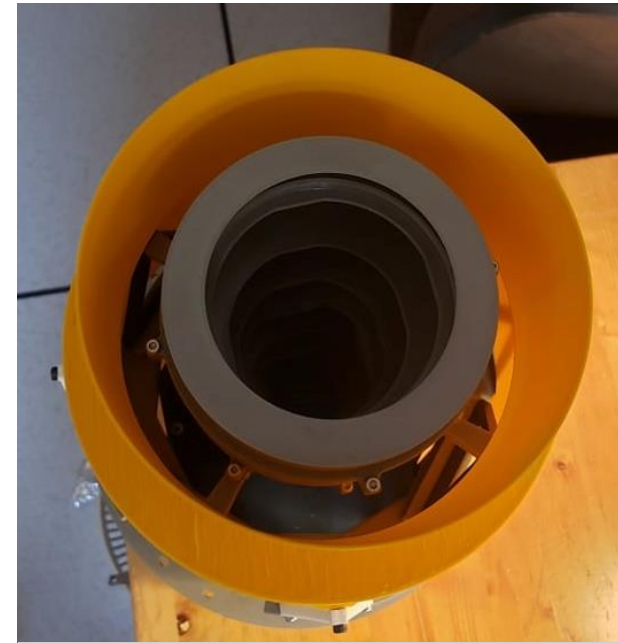
CDR phase



Cryostat 3D CAD model



Cryostat prototype 3D print



Cryostat prototype 3D print

COLIBRI PROJECT STATUS – CAGIRE STATUS @ IRAP

CAGIRE is in the final design phase.

MAIN POINT:

Interfaces with DDRAGO: cryostat & Close electronics – **done**

AIT tools design in progress.

Optics purchase is placed

Call of tender for the cryostat is on going

Lynred Detector:

- 4 had been delivered to CEA by Lynred: 2 sciences and 2 engineering.
- Discussion with ESA are led to decide which one is for CAGIRE.

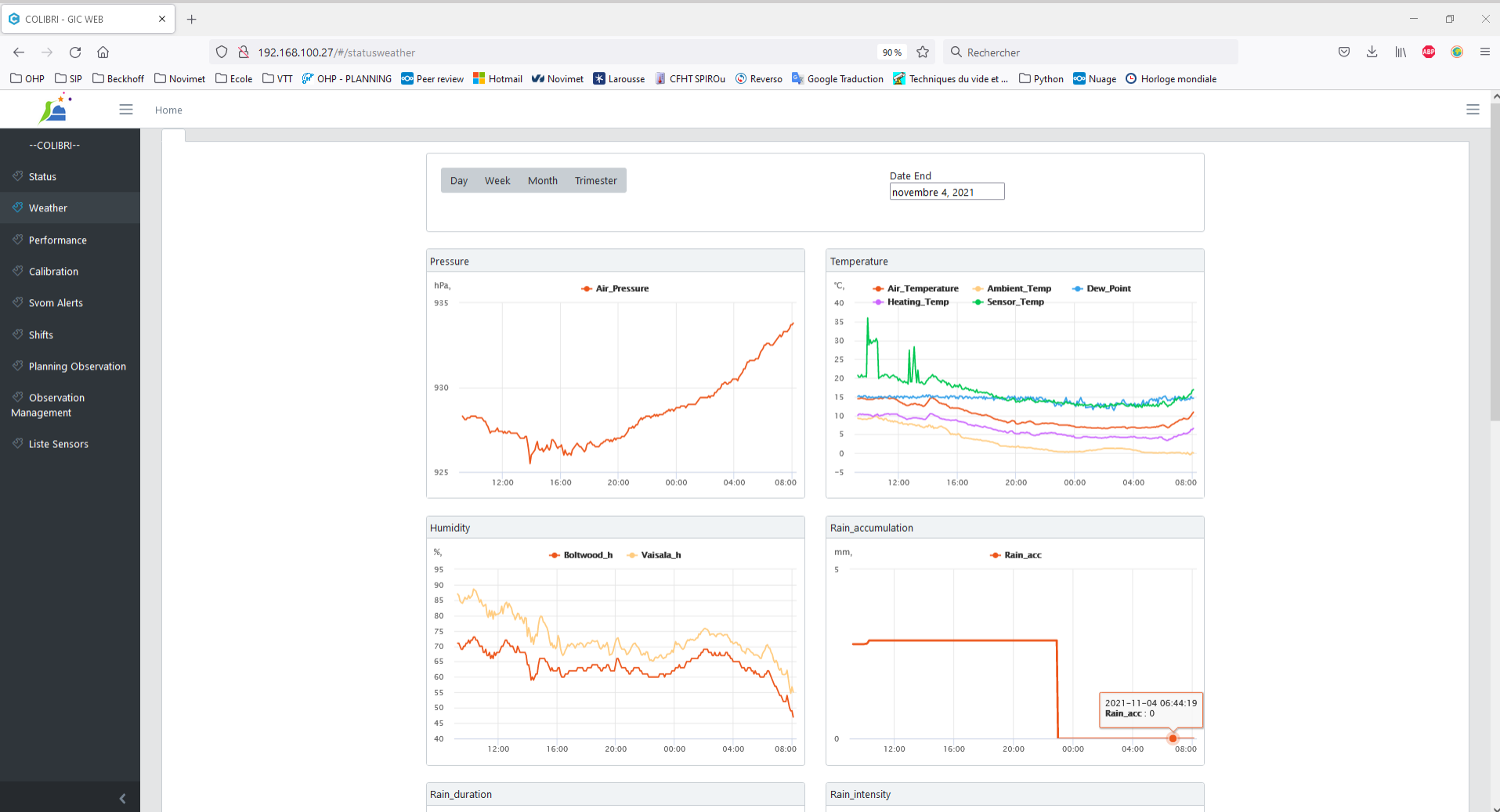
MAIN KEY DATES:

- CAGIRE CDR: 3/06/2021
- New evaluation of some of the CAGIRE CDR documents during the DDRAGO CDR
- **CNES Status: May 2022**
- **Design consolidation before the delta CDR: TBC 2022**
- Delivery of Cryostat + alignment stages: June 2022 (TBC)
- Delivery of Optics: September 2022
- Detector delivery at IRAP: October/December 2022
- **CAGIRE acceptance at IRAP: June 2023**
- **CAGIRE delivery at OAN – Mexico: from July 2023**

COLIBRI PROJECT STATUS – SOFTWARE STATUS

CPPM, UNAM, LAM, OHP

GIC Website with PLC & seeing monitor datas



COLIBRI PROJECT STATUS – SOFTWARE STATUS

GIC & GP1 Pipeline:

- GIC / GP1 computer is installed @ OHP
- GP1 is ready to process DDRAGUITO data
- Meanwhile TCS running, GIC is connected with PLC and the seeing monitor (summer 2021)
- GP1 will be tested (spring 2022) with the first image of DDRAGUITO on sky

TCS:

- Work started in July 2021.
- First tests on telescope on March 2022.

DATABASE: May 2022

PLC: on going

- Installation on the AIT platform @ OHP in July 2021
- Communication with TCS – To be tested (testing with TCS not done) but tested with GIC.
- Telescope controller interconnection
- Some functionalities will be only tested at OAN (Dome, louvers, anti-intrusion...)

COLIBRI PROJECT STATUS – COLIBRI BUILDING AT OAN – MEXICO

Building concept @ OAN - MEXICO



COLIBRI PROJECT STATUS – COLIBRI BUILDING AT OAN – MEXICO

MAIN STEPS:

- All design are finished: cliff Reinforcement, building and servicing building.
- Telescope pillar: construction is finished
- Weather mast & Seeing monitor: in operation @ OHP, design and location @ OAN is validated
- Delay in the tender process for the building

MAIN KEY DATES:

- Environmental permit for the cliff: February 2022
- **Cliff reinforcement work on site: Started in March 2022 (6 weeks)**
- **Contract for building and services: in progress**
- Building and service building construction: mid of April to September 2022
- Dome installation: October/November 2022
- **Telescope Installation: December 2022 or beginning of 2023**

