

# EMIR@GTC Current and future instrumentation plan

*A. Cabrera-Lavers*

*GRANTECAN*

# GTC telescope instruments suite (2009-2018)

OSIRIS CANARICAM CIRCE EMIR MEGARA HiPERCAM

| | | |
|---|---|---|
| *0.36 – 1.00 µm* | *Broad Band Imaging* | *Low Resolution Spectroscopy (R<2500)* |
| | *Narrow Band Imaging* | *Mid-Resolution Spectroscopy (R=5000-20000)* |
| | *Fast Photometry* | *Multi-Object Spectroscopy (N < 40)* |
| | *Integral Field Unit* | *Multi-Object Spectroscopy (N < 90)* |
| *0.9 – 2.5 µm* | *Imaging* | *Mid-Resolution Spectroscopy (R=5000)* |
| | *Polarimetry* | *MOS (N=50)* |
| *7.5– 25 µm* | *Imaging* | *Low Resolution Spectroscopy (R=150)* |
| | *Polarimetry* | *Spectropolarimetry* |

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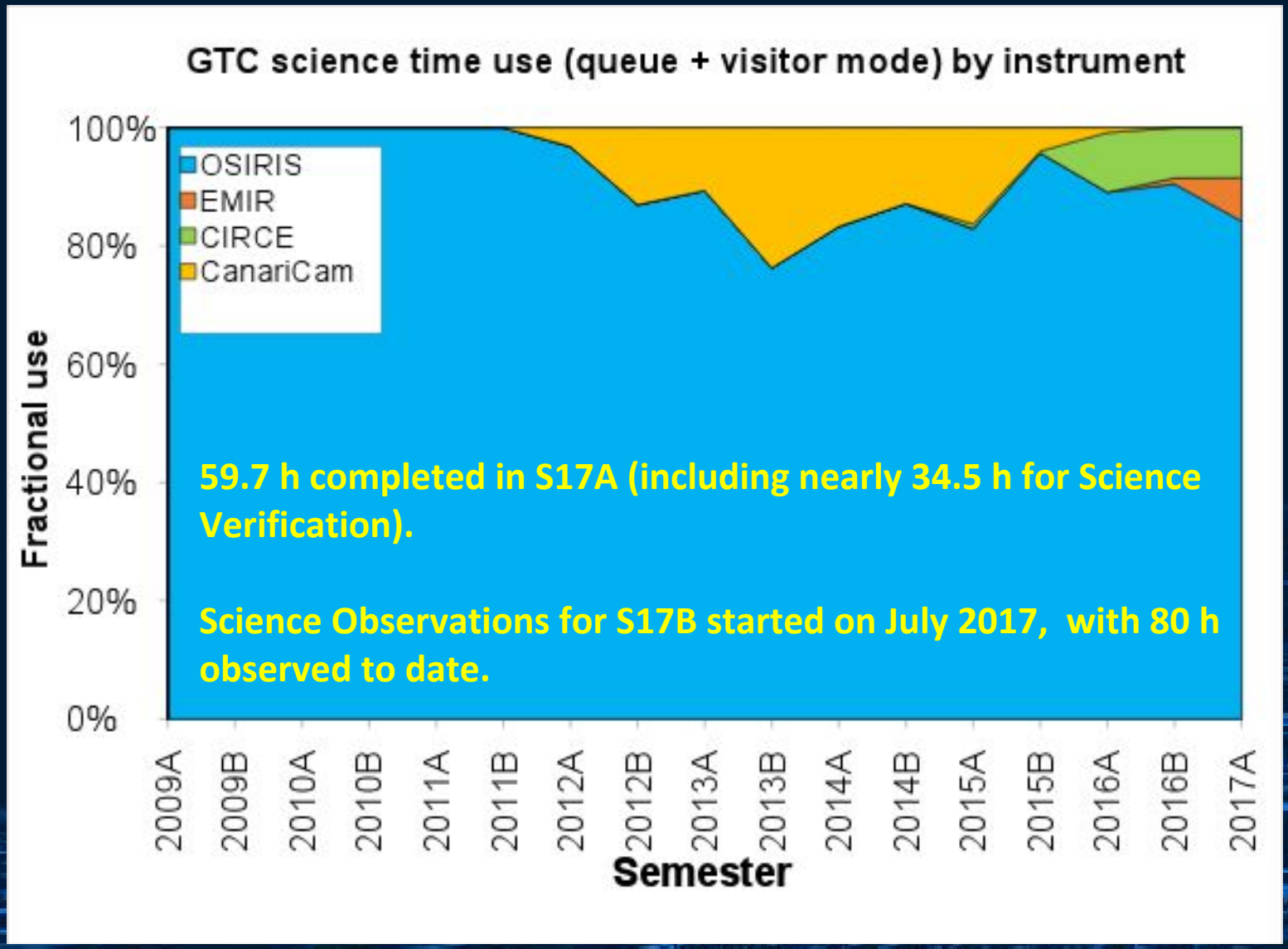
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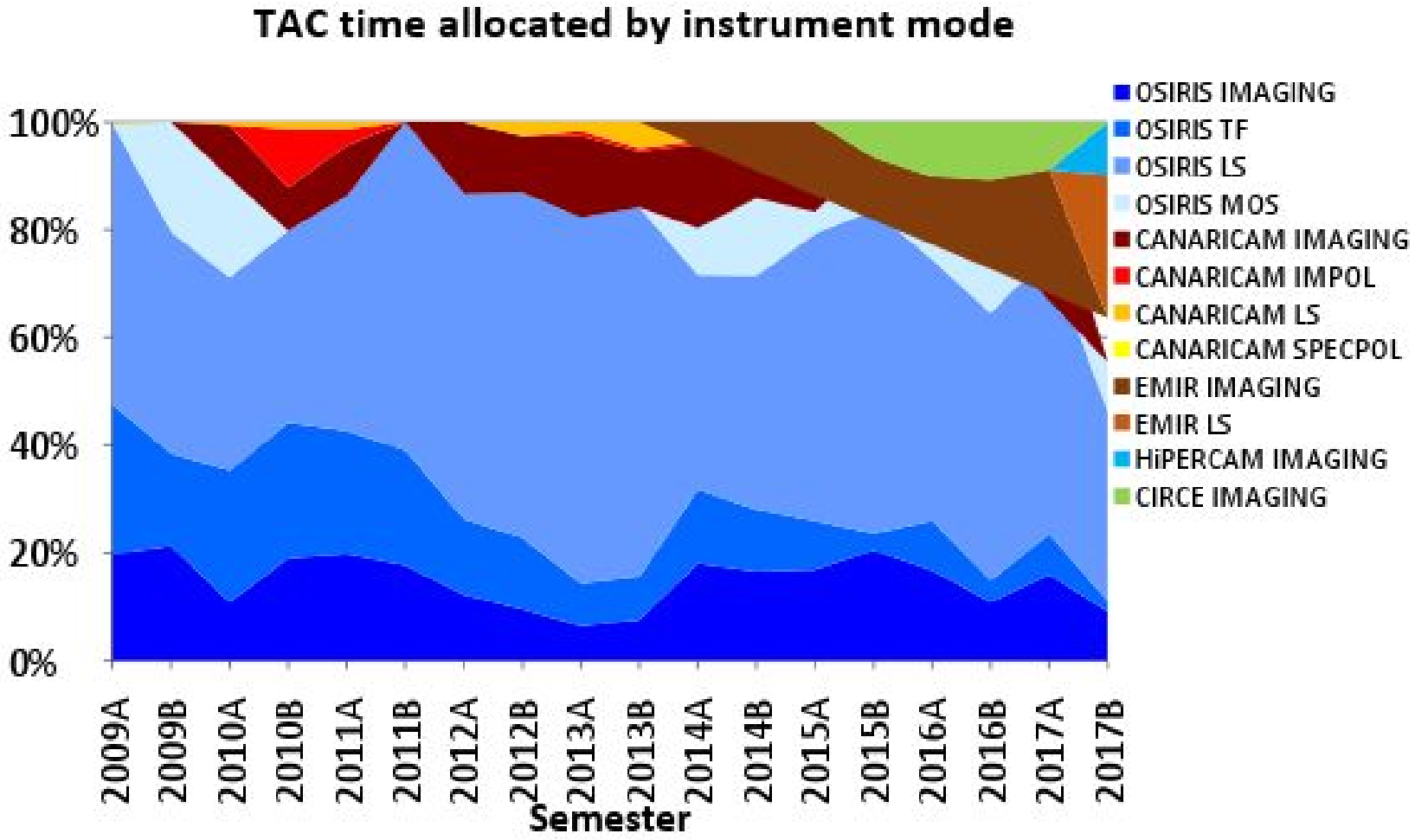
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# EMIR@GTC operation numbers



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**517.5 h allocated in S17B (34.9%) and approximately 500 h requested for S18A.**

# *EMIR@GTC operation numbers*

- > 145 h observed with EMIR in only 6 months of use (250 h with CIRCE in 2.5 years).
- Data quality fulfills specs (see different talks along this meeting).
- First paper with EMIR data appeared in September 2017!!!.

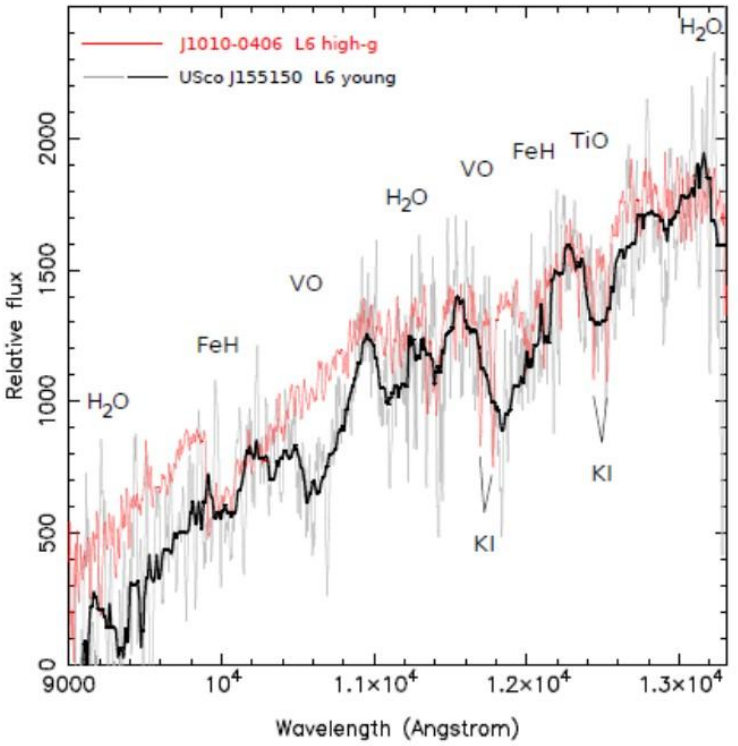
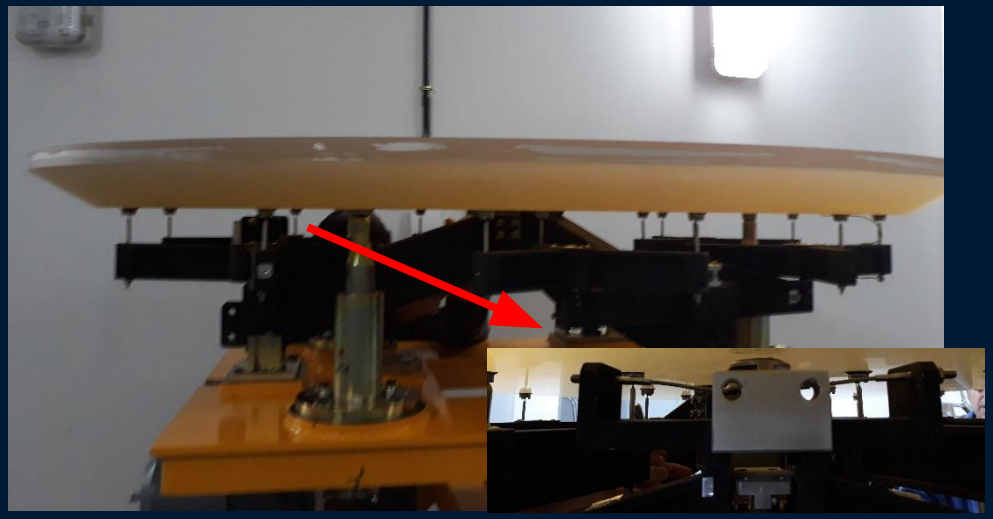


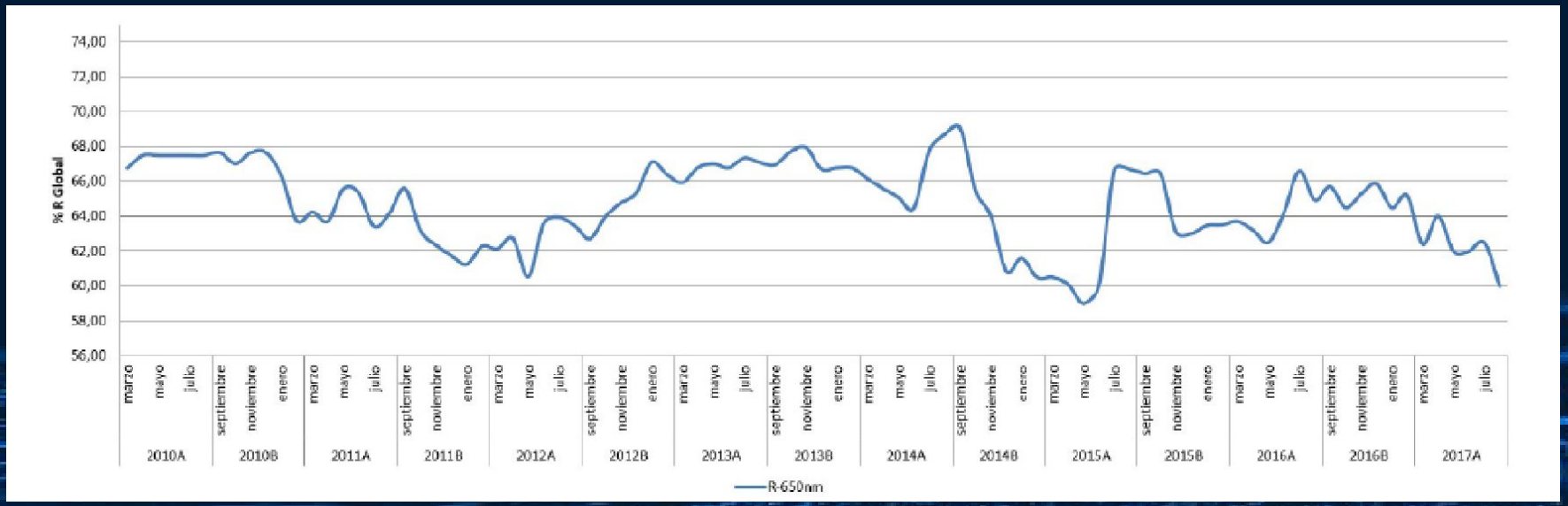

**Figure 10.** GTC EMIR spectra of 2MASS J10101480−0406499 (red) and USco J155150.2−213457 (gray line depicts the original spectrum while the thick black line illustrates the median-filtered data). Both objects are classified as L6 high- and a low-gravity dwarfs, respectively. The size of the median filter is 41 pixels. The spectrum of the field dwarf was normalized to the observed flux of the UpSco object at 1.28–1.32 $\mu$m.

***Lodieu et al. 2018, MNRAS, 473, 2020.***

# GTC stand down due to M3 support problem

- During M3 aluminizing planned on October, we detected a problem in one of M3 supports.
- Repair is relatively easy, but process itself takes some unavoidable time.
- Night observations will be restarted on Nov 24th, after 45 days of stand down.

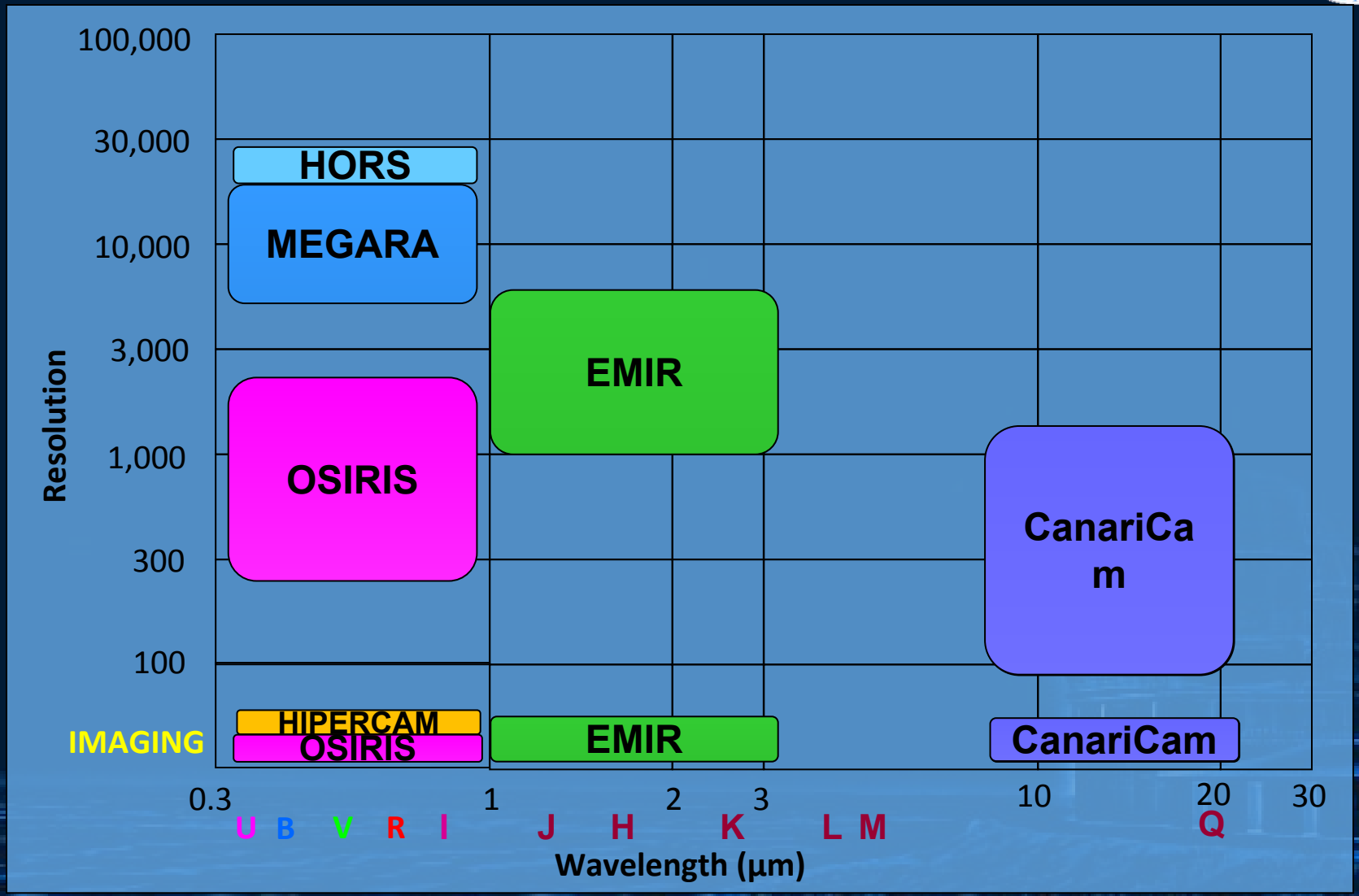




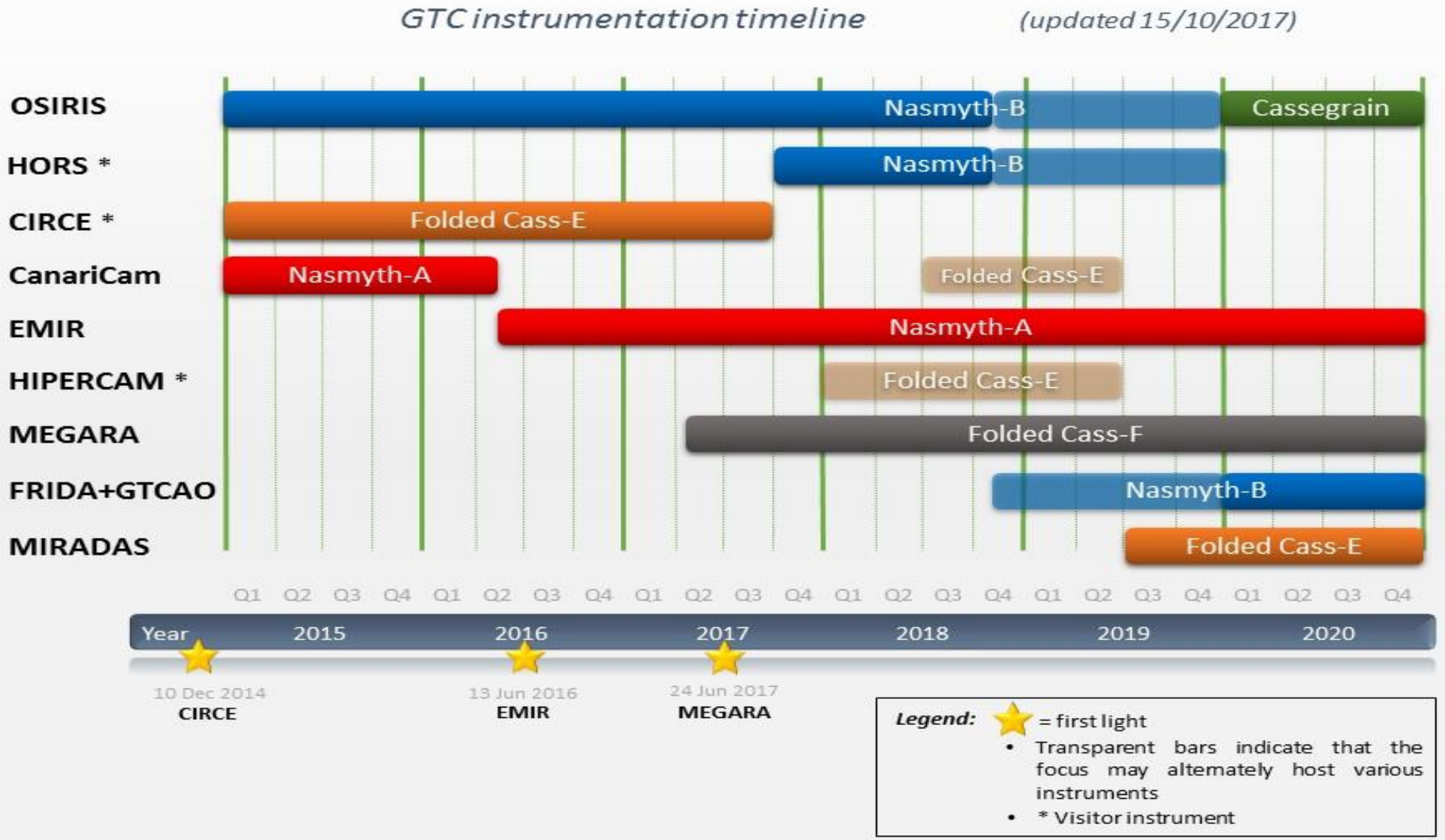
# *GTC instrumentation plan for 2017-2018*

- HORS commissioning in September 2017 was cancelled due to a gas leakage in one of the Cryotiger's hoses, that need to be repaired. A tight schedule for night commissioning in the telescope. Final dates still TBD.
- We are progressing in the operational issues related with MEGARA, but the process is being really difficult. Our priority is to offer the instrument for S18B, with observations made from June 2018 (as it was done with EMIR in S17B).
- NEFER (High Resolution ETALON for OSIRIS) first tests planned for 11-15 December 2017.
- Funds approved by MINECO for Canaricam refurbishment and adaption to FCassE have been received, and the project started via agreement with UF for instrument upgrades (electronics, cold heads, detector..). Main goal to have the instrument operative by middle 2018.
- **MOS commissioning will be done on January-February 2018 (TBC!!!).**

# GTC instrumentation for 2017-2018



# GTC instrumentation plan (2015-2020)



http://www.gtc.iac.es/GTChome.php



# THANKS!!!!

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# GTC facility / visitor instruments policy

| Facility instruments | Visitor instruments |
|---|---|
| High priority and access to resources | Low priority and limited resources (<1FTE) |
| Integrated in GCS | External software accepted |
| Only regular proposal calls | Shared-risk / Special Calls allowed |
| Science Verification allowed | No Science Verification |
| Guaranteed time agreed under contract | Guranteed time generated by the external instrument use |
| Grantecan responsibility | PI/Insitution responsibility |

# GTC commissioning nights for new instrumentation

