

Science & Technology
Facilities Council



WHT TIME IN THE WEAVE YEARS

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WEAVE SV workshop, IAC, 2019 Nov 14-15



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Operational model

- Night: 1 operator, 1 astronomer
 - Scheduler s/w: prioritising OBs during the night
 - Quick-look s/w: guiding decisions during the night
- Day: 1 astronomer reviewing the night (OISMT)
 - Quality control
- Day: engineering team
 - Addressing technical issues



Start of WEAVE surveys

Current plan: Nov 2020



Open time and WEAVE

Time block	Total (nights)	Total (%)	Users
Available	365.0	100%	
Discr (ING)	24.6	6.7%	ING
ITP 5%	17.0	4.7%	Canarian Obs Countries
Open+site 30%	97.0	26.6%	ING Partners
Surveys 70%	226.4	62.0%	WEAVE Consortium

Open time instrumentation

ISIS, LIRIS, ACAM

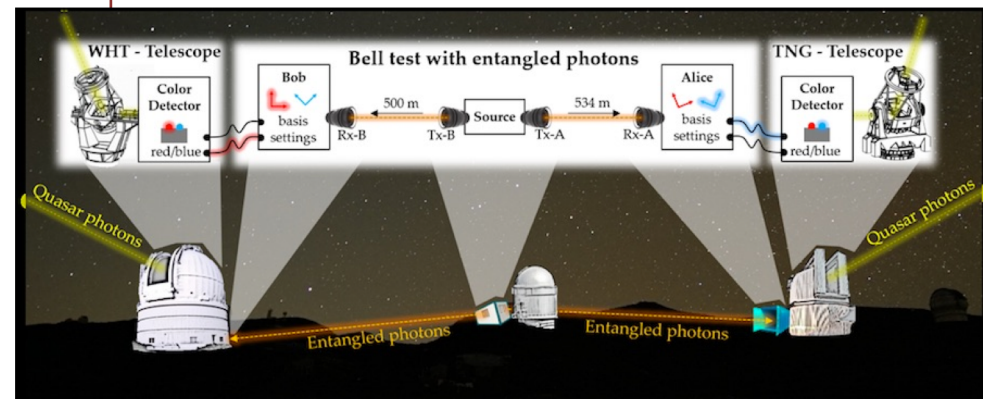
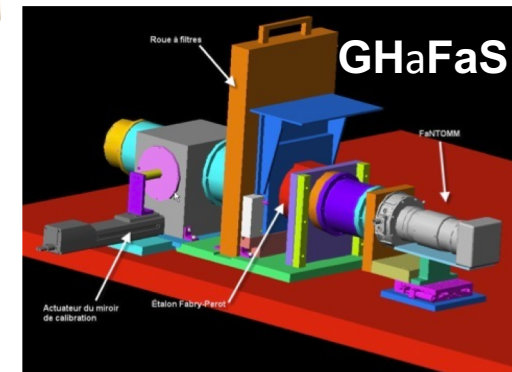
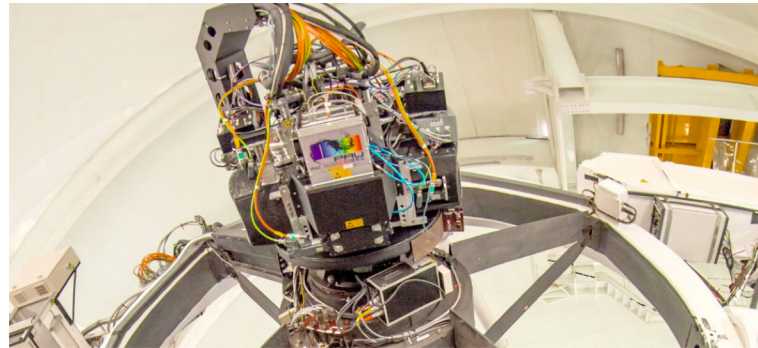
+WEAVE

Visiting instruments –

- PAUcam; HyperCam; PNS; GHaFaS

Technology demonstrators

- CANARY, novel AO technologies for EELT



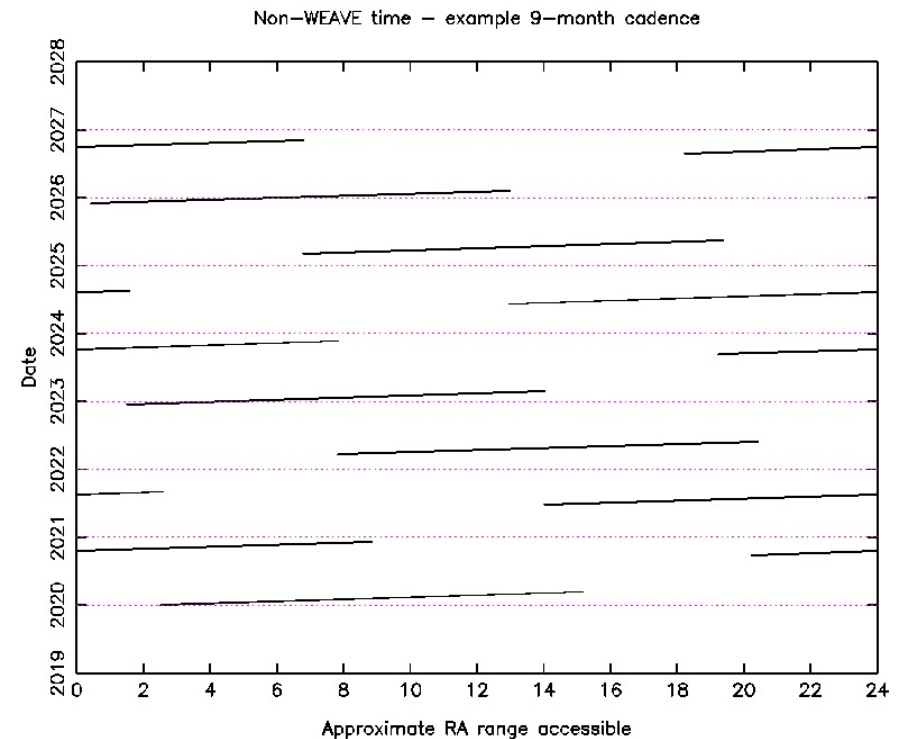


Cadence WEAVE on-off telescope

- Accepted model is 9-month periodicity
 - May evolve as survey progresses (15 months?)

Dates and middle-of-night LST at start and end of each non-WEAVE period, for years 2020 to 2026, when the start of non-WEAVE periods are spaced by nine months from each other.

Year	Date WEAVE off	Date WEAVE on	LST midnight start (hr)	LST midnight end (hr)
2020	01-01-2020	11-03-2020	6.5	11.2
2020	27-09-2020	06-12-2020	0.2	4.9
2021	24-06-2021	02-09-2021	18.0	22.6
2022	21-03-2022	30-05-2022	11.8	16.4
2023	16-12-2022	24-02-2023	5.5	10.0
2023	12-09-2023	21-11-2023	23.2	3.8
2024	08-06-2024	17-08-2024	17.0	21.6
2025	05-03-2025	14-05-2025	10.8	15.4
2025	30-11-2025	08-02-2026	4.4	9.0
2026	27-08-2026	05-11-2026	22.2	2.8





WEAVE as open-time facility instrument

- ING will offer WEAVE in open time
- Time allocated by national TACs
 - Just as done til now with open time
- Surveys and open time share WEAVE nights, but not configurations.
 - OB's from both sides populate the queue
- OISMT scale priorities, to maintain the approved share
 - Balanced out per trimester / per semester?



ING will encourage OT use of WEAVE

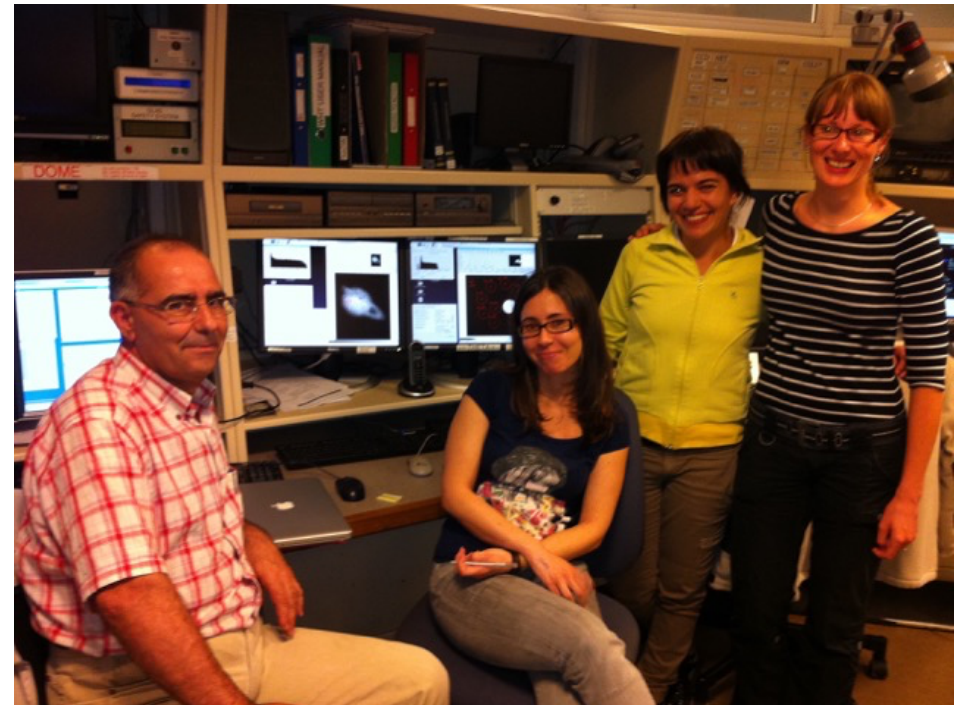
- Moving ISIS proposals to WEAVE?
 - WEAVE is on telescope for longer fraction of year
 - Fewer instrument changes
 - ING Technical Note 137, comparing ISIS vs WEAVE
 - http://www.ing.iac.es/astronomy/observing/manuals/ps/tech_notes/tn137.pdf
 - SNR WEAVE vs ISIS: 94% in Blue, 110% in Red
 - (But sky subtraction better on long-slit)
 - Some 35% of ISIS projects could be done on WEAVE



Scheduling issues Surveys- OT?

- RA pressure. Current understanding (July 2019) says WEAVE Survey RA pressure is rather flat.
- Moon phase
 - Natural share between surveys and OT
 - It is the responsibility of the surveys to fill their share of bright nights.

Filler programmes



- Queued telescopes: **we hate** sitting idle in the control room without OB's in queue for
 - Bright moon AND bad seeing
- We request **filler programmes ('bad-weather OBs')** from the surveys and from OT
 - We allow stealing filler time from the competition if they don't have programmes



Non-standard observing modes?

- ToO; overrides; time-critical; monitoring programmes
 - Not offered during first year for sure.
 - We will consider developing the infrastructure once surveys running smoothly
- Community fibres
 - A lot more complicated to set up
 - Would impact generation of survey OB's.
 - Perhaps later down the line?



Science Verification and Early Science

- To be done after commissioning
- Call for community SV programmes
 - 1 Oct 2019: Lol
 - 14-15 Nov: SV workshop in Tenerife
 - 15 Dec 2019: proposals due
 - Early Feb 2020: SV programme announced

http://www.ing.iac.es/astronomy/observing/2020A-AO-WEAVE_SV.pdf



ING hosting survey postdocs?

- Exploring this concept...
- 3-4 year positions, half time on La Palma, half at survey university
- Partake in survey observations, exploit WEAVE data
- Funding scheme
- Give us your expressions of interest!



THANKS