



The end-to-end cycle of ESO observing programmes

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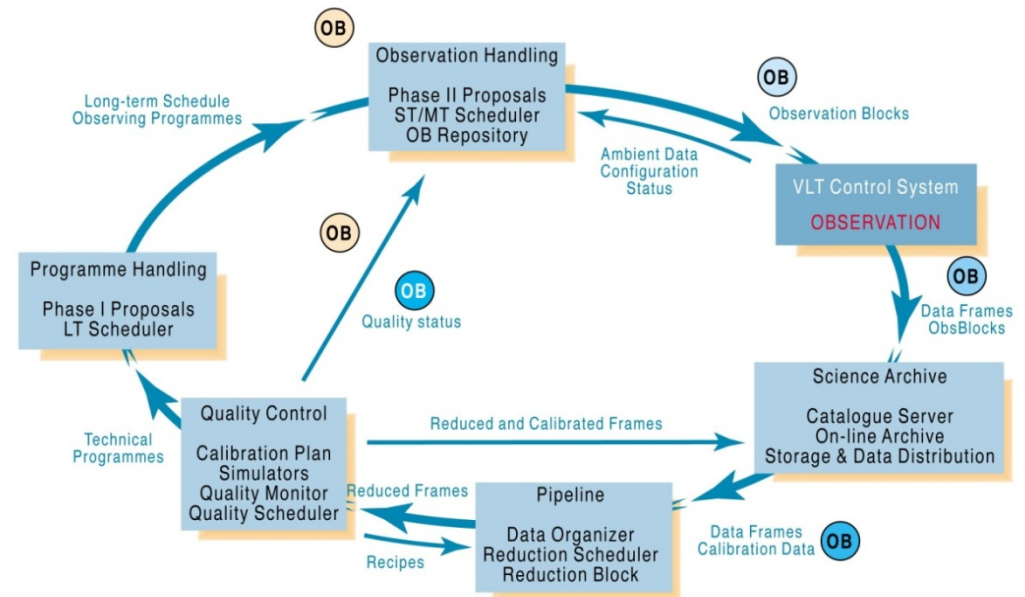
...on behalf of nearly 100 people in Germany and Chile who make it possible



Why an end-to-end process?

For reasons of observatory efficiency, ESO has implemented at the VLT and other current and future facilities (APEX, ALMA, VST, VISTA) Service mode observing at large scale (most or all the time).

In Service Mode, the main parts of an observing programme (writing a proposal/ planning and executing the observations/ reducing the data) are closely linked in an end-to-end model.





Writing the proposal

All you need to (and must!) know is in the Call for Proposals document, released twice per year: capabilities, policies, procedures...

Lots of tools to help you: Exposure Time Calculators, Archive, instrument technical webpages, information on calibration plans,...

And if this is not enough, help is offered by ESO: usd-help@eso.org



ESO Call for Proposals – P84

Proposal Deadline: 1 April 2009, 12:00 noon CEST



Lots of questions in the proposal form

(Instrument setup? Time on target? Execution conditions required? Time links?)...

..so that not only scientific merit and technical feasibility can be assessed:

also proper scheduling, taking into account weather expectation statistics, instrument availability, target distribution on the sky, etc.

The data in the proposal populate databases, thoroughly used afterwards

To efficiently schedule a programme, we (and you!) need to know as accurately as possible what you intend to do.

What happens next?



EUROPEAN SOUTHERN OBSERVATORY

Organisation Européenne pour des Recherches Astronomiques dans l'Hémisphère Austral
Europäische Organisation für astronomische Forschung in der südlichen Hemisphäre

OBSERVING PROGRAMMES OFFICE • Karl Schwarzschild-Strasse 2 • D-85748 Garching bei München • e-mail: spo@eso.org • Tel.: +49-89-32 00 64 73

APPLICATION FOR OBSERVING TIME

SHORT PROGRAMME

PERIOD: 84A

Important Notice:

By submitting this proposal, the PI takes full responsibility for the content of the proposal, in particular with regard to the names of CoIs and the agreement to act according to the ESO policy and regulations, should observing time be granted

1. Title										Category: C-5	
Birth of a jet knot: Par-Lup3-4 seven years later											
2. Abstract / Total Time Requested											
Total Amount of Time: We wish to obtain a second-epoch observation of HH 409, a jet driven by the peculiar very low luminosity object Par-Lup3-4, discovered by us with FORS1 in 2003. At that time a knot in the jet was clearly visible in narrow-band images, only 1"3 from the central object. High resolution spectroscopy observations have shown that the axis of the jet is almost contained in the plane of the sky, leading us to infer a fast proper motion if a typical HH ejection velocity is assumed. We thus expect a clearly detectable displacement, of order of 0"7 or more, in the intervening seven years since the discovery of the knot, which together with the available radial velocity measurements will allow us to determine its total ejection velocity. Given that Par-Lup3-4 is one of the least massive jet-driving sources known (spectral type M5) and the only one in this class whose total space motion can be measured already now, these observations can be very useful to constrain jet launch models.											
3. Run	Period	Instrument	Time	Month	Moon	Seeing	Sky Trans.	Obs.Mode			
A	84	FOR2	2h	mar	n	$\leq 0.8''$	THN	s			
4. Number of nights/hours				Telescope(s)				Amount of time			
a) already awarded to this project:				-				-			
b) still required to complete this project:				-				-			
5. Special remarks: -											
6. Principal Investigator: COMERON Col(s): M. Fernández (1392), B. Relpurth (1975)											
7. Is this proposal linked to a PhD thesis preparation? State role of PhD student in this project											



Now that you got observing time...

Phase 2 consists of the precise definition of the programme in the form of Observation Blocks that fully specify each composing observation

Done using the Phase 2 Proposal Preparation (P2PP) tool

The screenshot displays the P2PP tool interface. On the left, a 'Folders' pane lists various observation blocks, with '075.D-0633(A)/SM/ISAAC' selected. The main window shows a 'Findings Chart' for '075.D-0633(A,B)' with a target 'BMB_111' marked by a red circle. Below the chart is an 'Execution Time Report' table. On the right, a 'General Description' pane provides details about the observation, including the goal, constraints, and requirements.

File	ObsBlock	CalBlock	Name	DbaseId	Status	Target	OD	CS	Acquisition	FindingCh...	Ephemer...
BMB...	191086	(D)efined	BMB_111	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191088	(D)efined	BMB_088	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191090	(D)efined	BMB_061	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191092	(D)efined	BMB_051	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191094	(D)efined	BMB_043	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191096	(D)efined	BMB_040	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191098	(D)efined	BMB_031	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191100	(D)efined	BMB_297	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191102	(D)efined	BMB_289	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191104	(D)efined	BMB_269	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191106	(D)efined	BMB_248	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191108	(D)efined	BMB_247	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191110	(D)efined	BMB_208	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191112	(D)efined	BMB_205	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191114	(D)efined	BMB_192	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191116	(D)efined	BMB_172	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191118	(D)efined	BMB_087	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191120	(D)efined	BMB_055	faint	cs_0633	ISAACSW...	(1)	BMB...			
BMB...	191122	(D)efined	BMB_052	faint	cs_0633	ISAACSW...	(1)	BMB...			



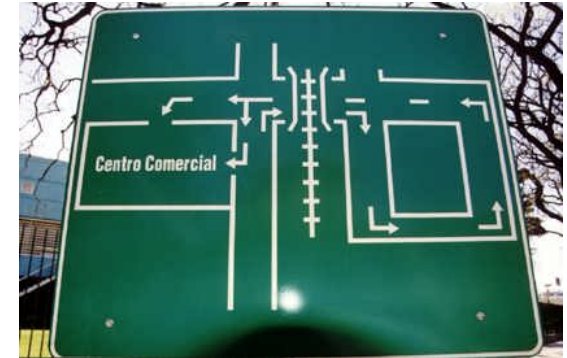
Phase 2 tools design

As far as possible, tools have been designed to ...



...allow users to do what they want to do

...be easy to use



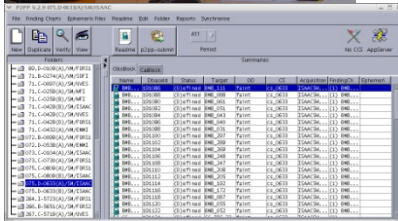
...help in avoiding mistakes

Phase 2 encourages you to think strategy, optimization, set up, execution conditions, priorities... in advance

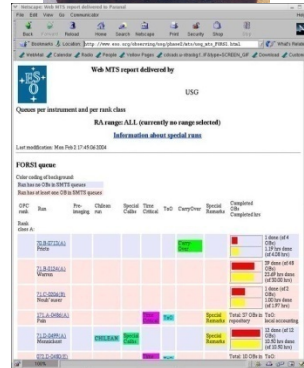
A process closely assisted by ESO support staff: we are as interested as you in the efficient use of your telescope time!



How it works in Service Mode



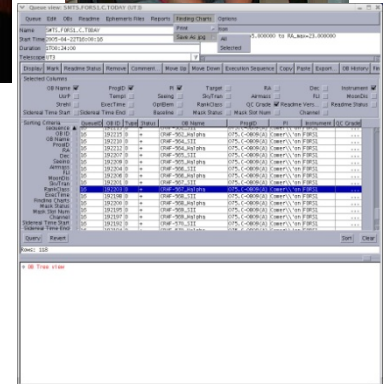
User



User Support



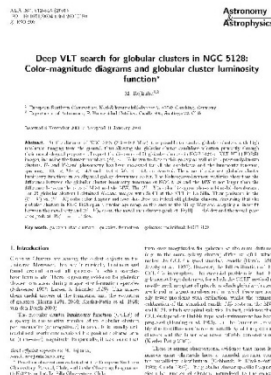
Paranal Science Operations



Quality control



User

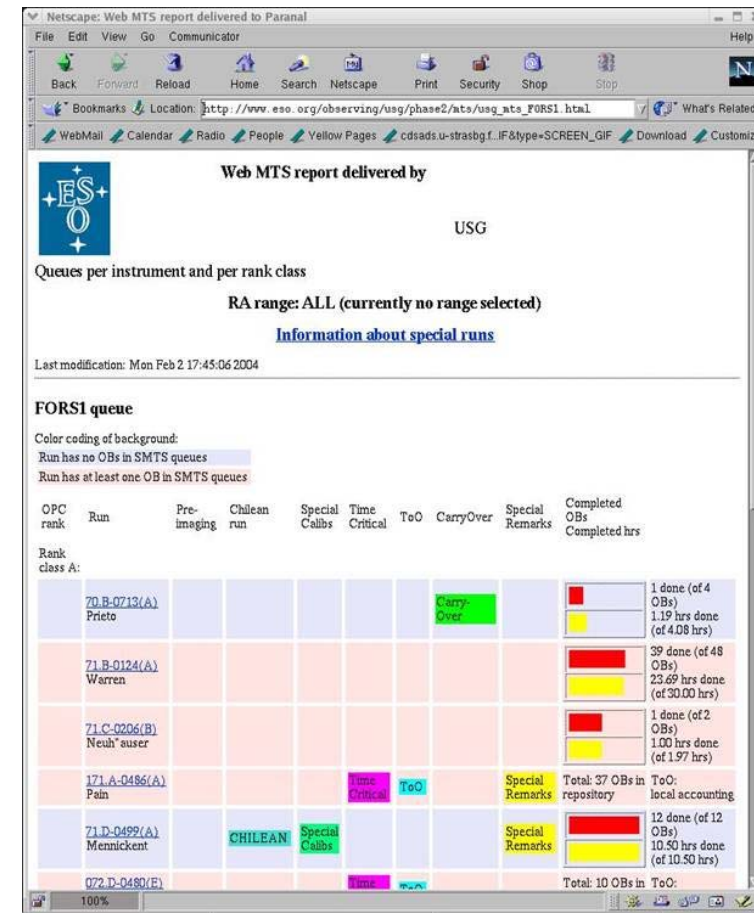




In the queue

Once your programme has been validated and scheduled, execution will depend on

- Right conditions occurring
- Priority (A, B, C, Large Programmes,...)
- Pressure on the region of the sky
- Competition with special programmes (ToO, time-critical, pre-imaging...)
- Competition with programmes for other instruments
- Optimization of the night (trend to minimize calibration load)
- What has been done until now (preference to complete started programmes)



Progress and completion are hard to predict accurately...



All data undergo quality control, at the telescope and later off-line

Important to monitor compliancy of the data with specifications, good performance of telescope and instrument, maintenance of the calibration database...

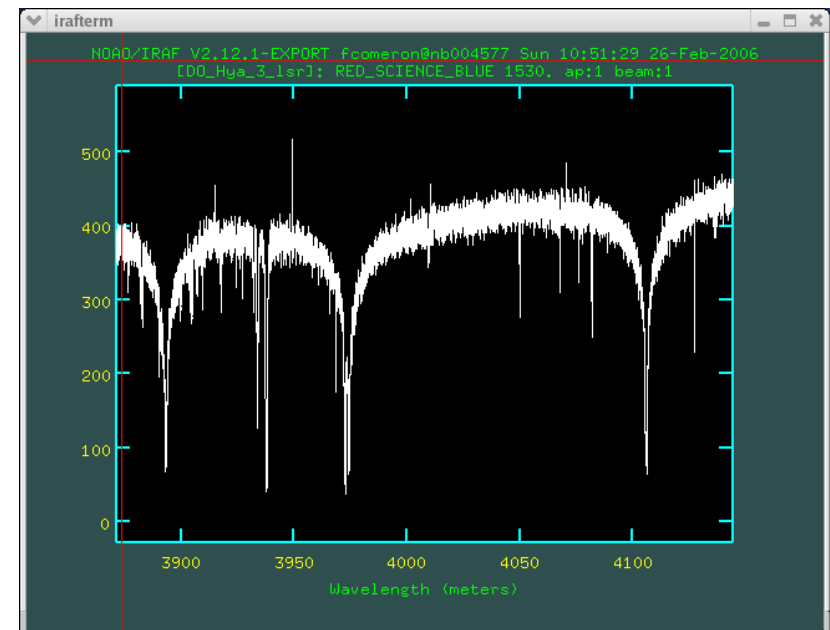
All the science data stream is processed by pipelines

Calibration plans are executed to ensure sufficient, uniform calibrations

All raw data, calibration data, logs, pipeline-processed data, and explanatory files are included in the data package

Your data, finally...

QC
passed ✓





Proprietary data now accessible (to the PI!) as they reach the archive, within few hours of being taken (no pipeline-processed data though)

A FP7-funded pilot project, EVALSO, is currently being set up to allow much faster data transfer from Paranal, using fiber link connection from the observatory: data may be available in the future within seconds

Quick access



ESO Archive Query Results

[ESO Archive Overview](#) [Help Page](#) [FAQ](#) [Archive Facility HOME](#) [ESO HOME](#)

To request a single dataset press the button labeled **Request Dataset** next to the chosen dataset.
(You will be prompted for your ESO User Portal username and password. If you do not yet have an ESO User Portal account, please fill out the [registration form](#).)
Datasets for which the proprietary period is over are highlighted in **green** and are publicly available.
Datasets that are still under the proprietary period are highlighted in **red** and can only be downloaded by the corresponding PI.

[Define new query](#) [Status of Requests](#)

MarkAll

UnMarkAll

Request Marked Datasets

Reset

M	More	HDR	Target Ra, Dec	Program ID	Instrument	Category	Type	Mode	Dataset ID	Release
<input type="checkbox"/>		Header	16:09:03.03 - 39:05:00.8	081.C-0254 (B)	HAWKI	SCIENCE	OBJECT	IMAGE	HAWKI 2008- 07- 20T00:10:12.306	Oct 23 20
<input type="checkbox"/>		Header	16:09:02.87 - 39:05:07.6	081.C-0254 (B)	HAWKI	SCIENCE	OBJECT	IMAGE	HAWKI 2008- 07- 20T00:11:01.954	Oct 23 20





Data legacy value

All data obtained with ESO
telescopes are stored in the
Archive

*(but this is another story:
Martino Romaniello's talk...)*





At ESO, your observing programmes enter a system carefully designed to provide you with high quality data, optimizing the efficiency of the facility, and providing you support through all the phases along their lifetime ... and beyond