User ESO Support Department

ESO
European Organisation for Astronomical Research in the Southern Hemisphere

50 YEARS 1962–2012

Phase 2 Users Workshop 2012

Today's Programme … what's in store for you …

09:30 - 09:45	Welcome and Introduction (F. Primas)
09:45 - 10:15	Phase 2 overview (M. Rejkuba)
10:15 - 10:45	The new Phase 2 Proposal Preparation tool (M. Petr-Gotzens)
10:45 - 11:15	Coffee break
11:15 - 11:45	Ranking of service mode observations and relative priorities (M. Hilker)
11:45 - 12:15	UT2 instruments (V. Mainieri, J. Pritchard, T. Dall)
12:15 - 13:30	Lunch break
13:30 - 15:00	Practical tutorial: phase 2 preparation with P2PP3
15:00 - 15:30	Coffee break
15:30 - 16:30	Practical tutorial (continuation)
16:30 - 17:00	Feedback from participants and Summary

User Support Department

ESO
European Organisation for Astronomical Research in the Southern Hemisphere

50 YEARS 1962–2012

Phase 2 overview

Marina Rejkuba

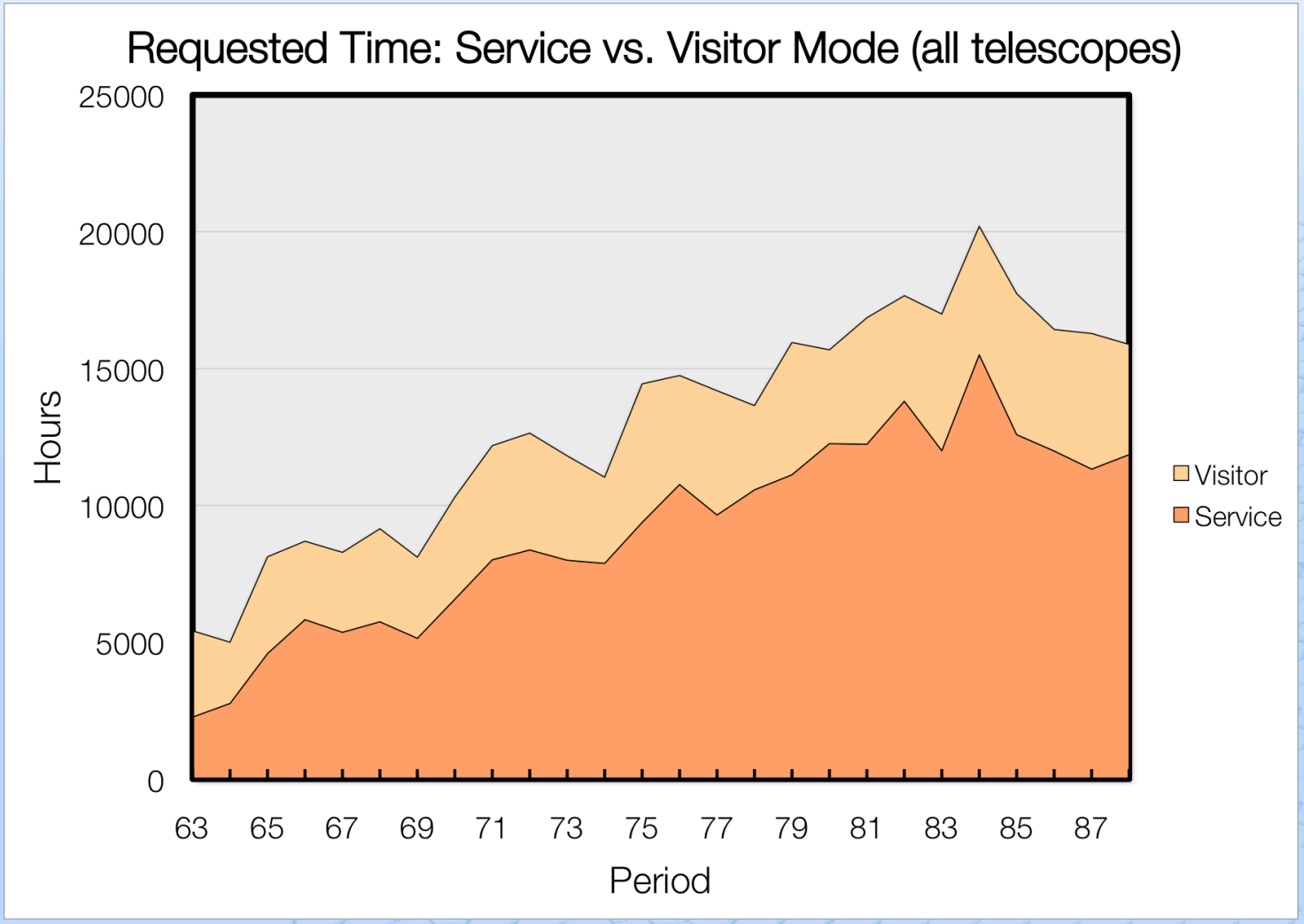
Introduction

- What is Phase 2
  - Differences between service mode and visitor mode – Phase 2 service mode rules
  - Why are there such strict Phase 2 rules?
- What happens during and after Phase 2
  - Observation preparation and submission
  - Observation verifications – what is behind
  - Observation execution and tracing a problem

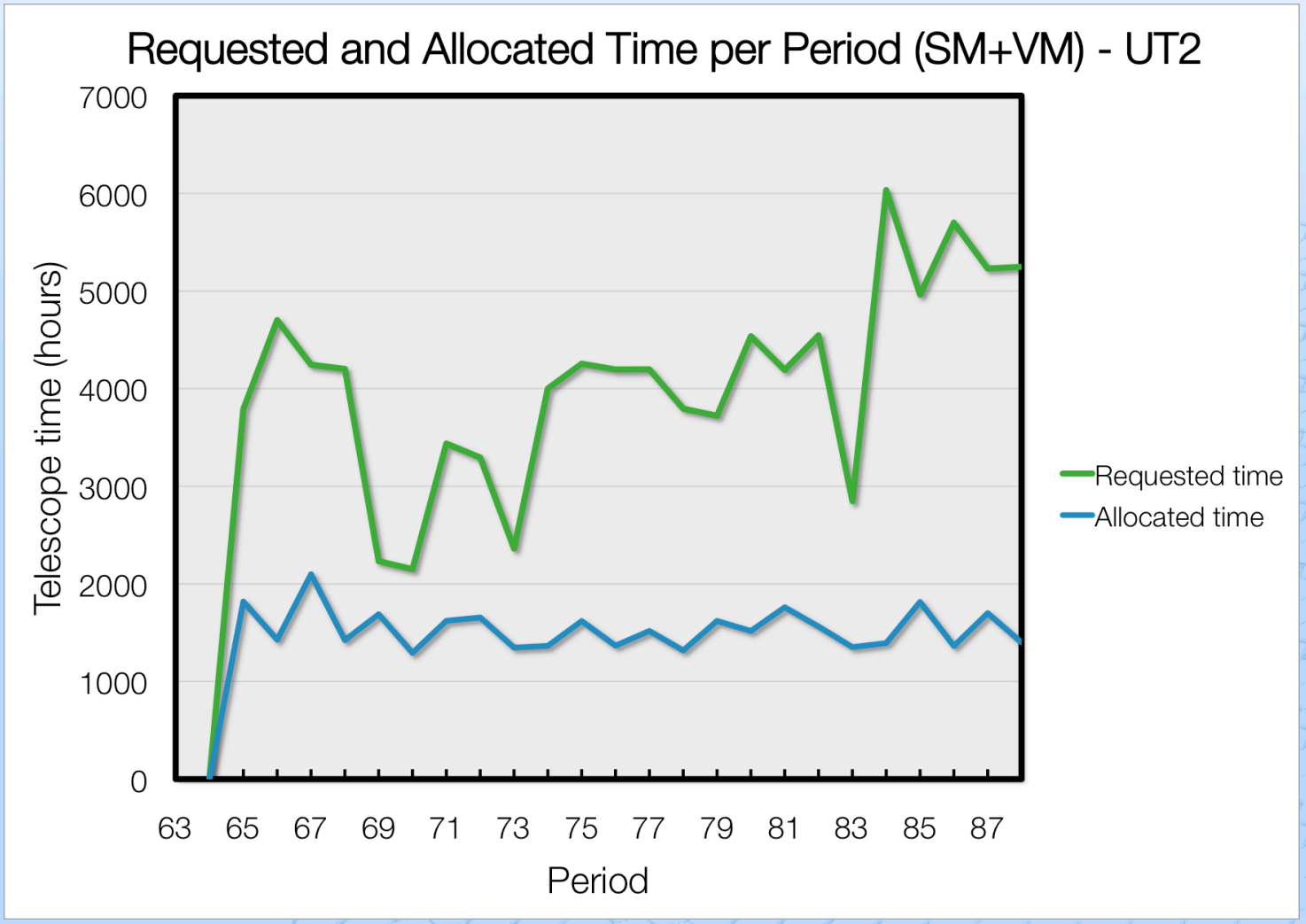
Service Mode advantages

- Service Mode observing
  - Maximize the **science efficiency**
    - ✓ Highest priority programmes have the execution priority and are executed under optimal (required) observing conditions
  - Maximize the **operational efficiency**
    - ✓ Sharing the calibrations between the programmes
    - ✓ Optimization of the observing time between different programmes
  - Maximize the **scientific use of telescope time** under any condition
  - Maximize the **scientific productivity** via uniform datasets

Service Mode is popular …



… and the pressure on UT2 is high



Service Mode Programme Priority Groups

- A: highest priority – if not completed carried-over
  - Carryover A-ranked runs from the previous period
  - Large Programmes
  - Chilean Programmes
  - Target of Opportunity
- B: medium priority
  - Observed if there are no competing higher ranked (A) programme at the same RA and for the same observing conditions
- C: low priority (“fillers”)

Service Mode vs. Visitor Mode

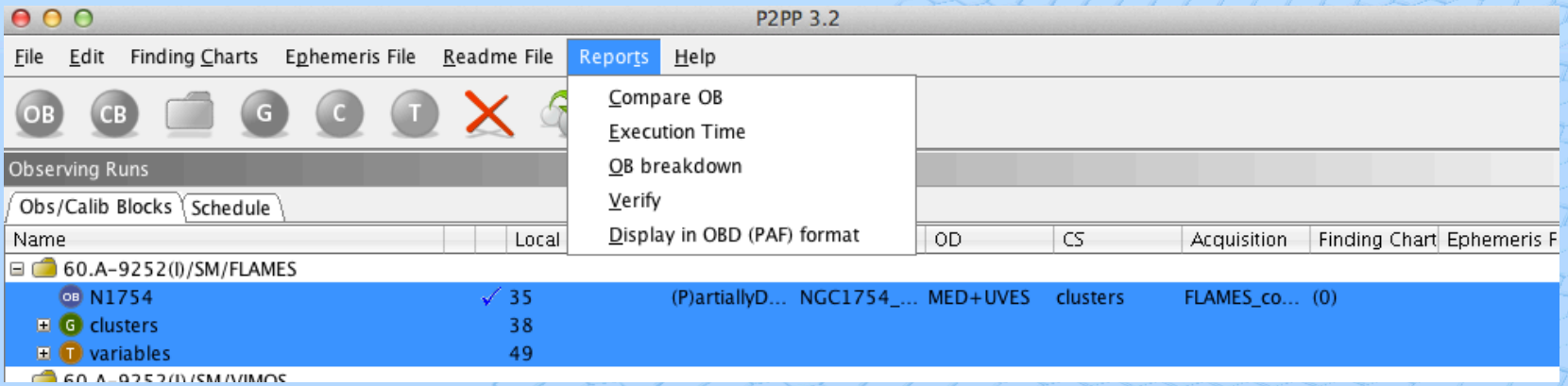
- real time decisions on the observation execution
  - If S/N of OB1 is larger than X, then exposure time of OB2 should be changed to Y
- SM observation done under requested constraints
  - If not within constraints → repeated without charging to the user
- Observations are self contained within scheduling units (OBs) that can be executed within requested constraints
  - No “saving of overheads” or time back
  - Here there are some changes….

General Service Mode Rules

- Phase 2 constraints = Phase 1 request/allocation

http://www.eso.org/sci/observing/phase2/SMPolicies/Phase2Phase1.html

- Targets and instrument setup at Phase1 = at Phase2
- Total execution time cannot exceed the allocated time
  - Programme execution time includes all overheads



- OB and Concatenation execution time limited to 1h
  - Flexible scheduling

Instrument Specific SM Rules

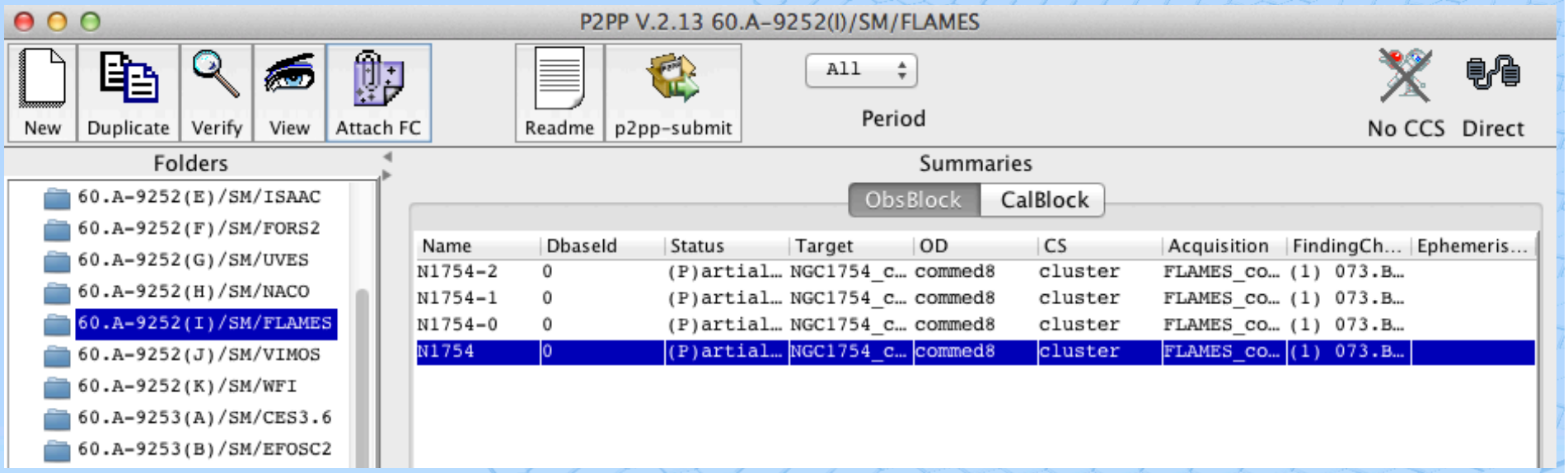
- Know your instrument
  - Instrument specific preparation software
  - Requirements on the target brightness, guide stars, max. exposure times, ..
  - If some rule is too stringent for your science: waiver request via p2pp-waiver@eso.org e-mail
- Where to find information
  - User Manual, Template Manual, P2PP3 manual
  - Instrument web page, Phase 2 web page
  - FAQs: http://www.eso.org/sci/observing/phase2/SMGuidelines/FAQP2.UVES.html
- Need help? E-mail to: usd-help@eso.org

“Breaking” the rules

- SM Rule Waivers (General and Instrument Specific)
  - Approval requires input from Paranal → may take ~1 week
  - Clear scientific & technical justification (even better if in proposal!)
  - E-mail: p2pp-waiver@eso.org
- Target and setup change request
  - Target/observation duplication check
  - Web form: http://www.eso.org/sci/observing/phase2/ProgChange.html
- Phase 2 deadline extension request
  - E-mail: usd-help@eso.org

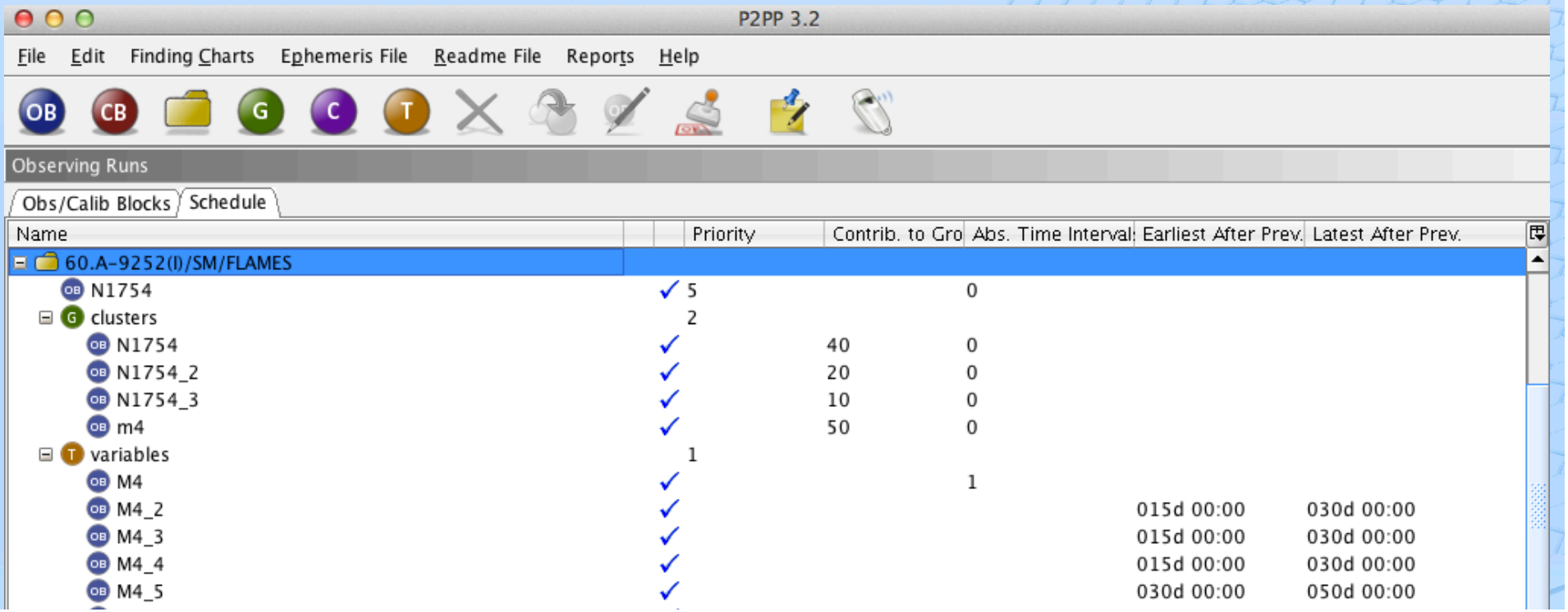
Phase 2 material preparation

- Phase 2 material
  - Observation Blocks (OBs) – may need input Instrument Config. file
  - README
  - Finding charts
  - Ephemeris file
- Preparation and submission: P2PP tool



The new P2PP version 3

- Motivated by public survey programmes
  - Design of complex long-term observing strategy
  - Computer literate observing plans
  - Increase OB execution automation and observing efficiency
  - Time-critical observations, linked OB execution



P2PP3: scheduling containers

- New scheduling containers
  - GROUPS - preferentially execute all OBs within one group before starting execution of OBs in another group
  - TIME LINKS - relative time dependencies between OBs

  → ideal for time monitoring
  - CONCATENATIONS - must be executed back to back

  → e.g. science + telluric star calibrator

Phase 2 material preparation

- Observation Block (OB)
  - Templates: acquisition + science + (attached calibration)
  - Target
  - Constraint Set
  - Absolute Time Windows
  - Scheduling information: User Priority, group contribution, time delays
- Calibration Block (CB)
  - No target information! Only for instrument calibrations (dark, arc, …)
- Calibration Observation of a target on sky → Calibration OB
- Finding charts – there are instrument specific rules
- README file – make it clear and concise

Phase 2 material review

- Does the submitted material correspond to requested and thus allocated time, instrument setup and targets?
- Is it prepared according to the service mode rules? (Verification script)
- How efficient is the observing strategy? Can it be more efficient?
- Will the submitted Phase 2 material permit to achieve the stated direct observation goals?
- In case the programme is in the A/B/C rank class are the constraints requested reasonable? Can they be relaxed?

User ESO Support Department

ESO
European Organisation for Astronomical Research in the Southern Hemisphere

Phase 2 material review

- All OK → prepare a short summary for Paranal

ToO Run	08( )(D)					ToO			Total: 2 OBs in repository	ToO: local accounting
	08( )(A)		CHILEAN	Special Calibs	Time Critical					15 done (of 16 OBs) 14.02 hrs done (of 14.96 hrs)
	0( )(A)							Special Remarks		8 done (of 8 OBs) 6.32 hrs done (of 6.32 hrs)
	08( )(A)									2 done (of 18 OBs) 2.00 hrs done (of 17.99 hrs)
ToO Run	08( )(C)			Special Calibs		ToO		Special Remarks	Total: 11 OBs in repository	ToO: local accounting
	08( )(B)			Special Calibs						0 done (of 4 OBs) 0.00 hrs done (of 0.60 hrs)
* Rank class B:										
	08( )(A)			Special Calibs				Special Remarks		8 done (of 12 OBs) 6.20 hrs done (of 9.00 hrs)
	08( )(B)				Time Critical			Special Remarks		0 done (of 4 OBs) 0.00 hrs done (of 2.33 hrs)
	08( )(A)									20 done (of 45 OBs) 19.85 hrs done (of 45.00 hrs)

Programme execution

- Target indicated in the finding chart is actually a binary → which one to put in the slit?
- Reference targets have poor astrometry
- Finding chart does not correspond to the target in the OB
- Part of the spectrum saturates with the requested observing time → is this desired?

Paranal observer sends a ticket: usd-help@eso.org

Observing Run progress page

European Southern Observatory

Service Mode Observing Run Progress Report

ESO — Reaching New Heights in Astronomy

The ESO Science Archive: It is possible to query the ESO Science Archive to see which object has been observed for you. Just query the database using your Programme ID, Observing run ID, or the name of the object. Alternatively, in the list of executed OBs shown below you may click on an OB ID to access all raw data files produced with that Observation Block. Also note that for observing runs prior to Period 88 you may access the reduced data at any time using the "Pipack" service.

Back to list of Service Mode runs

Your Period 80 Observing Programme:

Stellar population guide to the pre- and post-starburst phases of nearby galaxies

Observing Run Requirements:

RunID	Period	Instrument	Telescope	OPC hours	Moon	Seeing	Status	Progress
080.B-0692(A)	80	VIMOS	UT3	11.00	grey	0.80	TERMINATED/EP	Data: SENT FULL release Release date: Apr 18 2008 11:25:03:106AM

Last update: Mon Jan 9 15:31:36 2012
Explanation of entries in the Table

Observations to date:

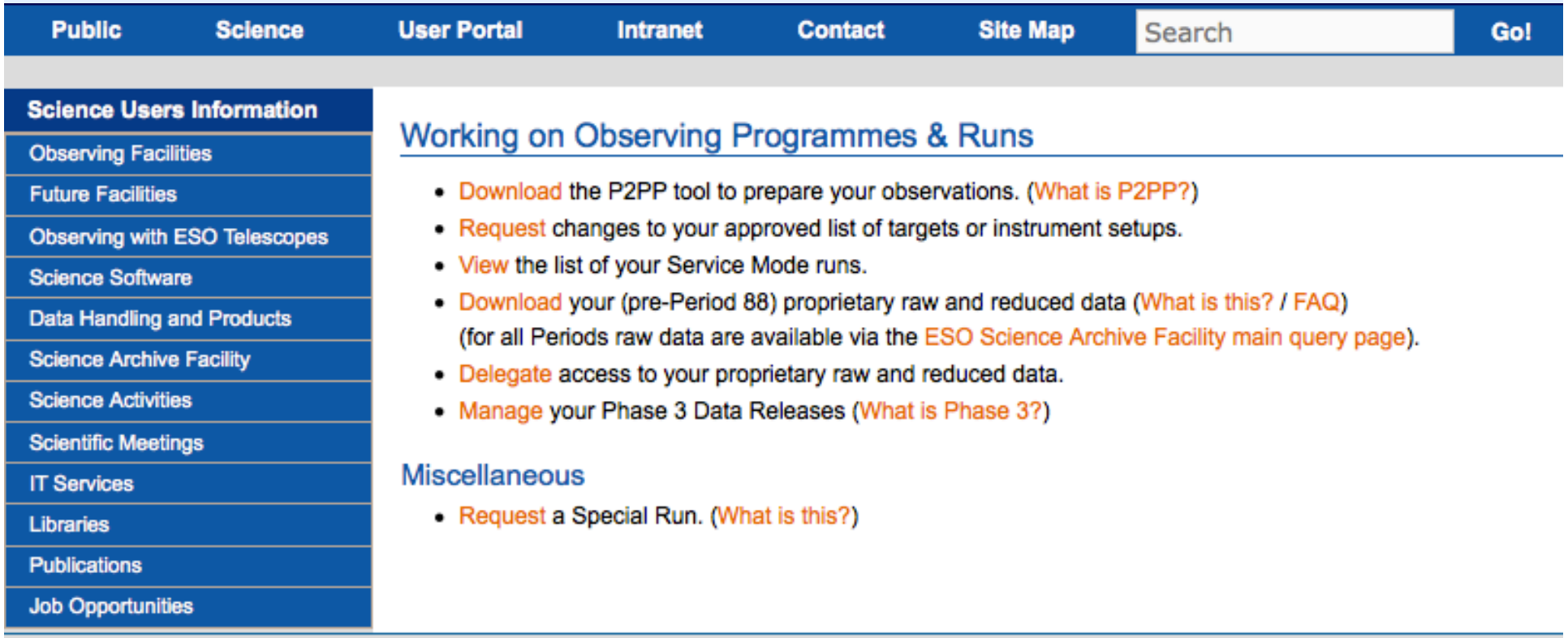
Date	OB ID	OB Name	Status	Atmospheric Conditions
5 -6 February 2008	290106	IMG NGC5102_F2_V3	Completed	ACD
5 -6 March 2008	290100	IMG NGC5102_F1_BVRphot	Completed	ACD
	290107	IMG NGC5102_F2_BVRphot	Completed	ACD

Done

User ESO Support Department

ESO European Organisation for Astronomical Research in the Southern Hemisphere

User Portal: My Programmes & Runs



- Proprietary data download → new: Calibration Selector
- Proprietary data delegation
- Coming soon: Phase 2 preparation delegation