ESO OBSERVING PROGRAMMES COMMITTEE

77th Meeting

Garching

November 21-25, 2005

DRAFT MINUTES
77th Meeting of the
ESO Observing Programmes Committee
held in Garching from November 21-25, 2005

A. OPC meeting - Part 1  (November 21, 2005)
B. Panel Sessions  (November 22-23, 2005)
C. OPC meeting - Part 2  (November 24-25, 2005)

The meeting took place with the following participants:

Chairperson:  Dr. Tommaso Maccacaro  (Italy)

Members:  Dr. Alfonso Aragon-Salamanca  (United Kingdom)
Dr. Alex De Koter  (The Netherlands)
Prof. Søren Frandsen  (Denmark)
Prof. Eva Grebel  (Switzerland)
Dr. Martin Groenewegen  (Belgium)
Dr. Jari Kotilainen  (Finland)
Dr. Andre Moitinho  (Portugal)
Dr. Goeran Oestlin  (Sweden)
Dr. Daniel Rouan  (France)
Prof. Maria Teresa Ruiz  (Chile)
Dr. Lutz Wisotzki  (Germany)

Members-at-large:  Prof. Artie Hatzes
Dr. Rob Jeffries
Dr. Paolo Saracco
Dr. Joachim Wambsganss

On behalf of ESO:  Dr. Catherine Cesarsky
Dr. João Alves
Dr. Bruno Leibundgut
Dr. Marco Lombardi
Dr. Jorge Melnick
Dr. Jason Spyromilio

Secretariat:  Elisabeth Hoppe
A. OPC meeting – Part 1

The OPC chairman opened the 77th OPC meeting addressing a special welcome to the new OPC members, Alex de Koter (NL) and Daniel Rouan (F) as well as to Rob Jeffries and Artie Hatzes who had kindly agreed to act as members-at-large for P 77. Then all participants to the meeting introduced themselves in a tour-de-table.

1. Introduction by the Director General

The Director General once again expressed her highest appreciation for the work performed by the OPC and its Panels, not only during the OPC week but also in the weeks before and after the meeting. She was afraid that increasing proposal numbers, impending delta calls for APEX and the fact that Public Surveys will soon need a lot more attention, will cause even more work in the future, as could already partly be noticed in P77. The Director General apologized that the Public Survey Proposals were provided for review on rather short notice and pointed out that it is very important that OPC has a general vision on this forward-looking field of science.

Public Surveys
The Director General informed the OPC that the results emerging from the review process of the Public Survey Panel would be presented by the Panel Chairman, Duccio Macchetto. As had been agreed in previous meetings, the OPC shall then make the final recommendations on the time to be allocated to the recommended surveys and to their follow-ups.

APEX Delta Call
The opportunity to offer FLASH emerged only on rather short notice on the occasion of the inauguration of APEX. Since FLASH could not be integrated in time in the P77 submission cycle, it had to be offered in a delta call, which caused additional work to the OPC. Input from the OPC on how to proceed with future APEX delta calls that may well arise soon, is very welcome.

Structure of the OPC
Based on the outcome of the investigations of the Scientific Strategy Working Group (SSWG) that had already been submitted to Council, the Director General expressed her intention to change the composition and Rules of Procedure of the OPC if possible already for the next meeting (P78). The main issue is to abolish the nationality aspects and to focus on scientific expertise aspects.
She was pleased to announce that in accordance with the wish expressed by the OPC, the Chairman of the SSWG and Council member, Professor Tim de Zeeuw will elaborate on the main issues and rationale of the SSWG recommendation on the last day of the meeting.

**Collaboration with ESA**
Following an agreement between the executives of ESO and ESA to cooperate on science planning issues it had been decided to establish a number of working groups in order to explore the synergies in important mutual interest and to make recommendations to both organizations. The first working group was dedicated to the research on Extra-Solar planets. Main recommendation of this working group was to optimize the scientific return of already existing instruments or instruments to be built in the near future, by follow-up observations of space missions of which the first one to be considered is COROT, which is intended to be launched in 2006. Considering these aspects the Director General stated that it should be of ESO’s foremost interest to help COROT to be a success.

**OPC Procedures**
The Director General reminded the OPC that the cut-off line discussion has been abolished and that all proposals with grade < 3 will be considered for scheduling. Proposals below the resource limits but with a grade better than 3.0 will have a chance to be scheduled when a better ranked proposal has to be left out e.g. for technical reasons, or because of localized RA pressure, etc, or if additional science time becomes available from engineering time. Therefore proposals that are not recommended for scheduling should be assigned a grade of 3.0 or worse.

Slight changes of the OPC procedures might become necessary in order to be able to cope with potential delta calls for APEX. Input from OPC on how to handle this is very welcome (see above).

In the context of OPC procedures, Dr. Ruiz pointed out that considering the corresponding statement in the CfP the procedure to be followed in the Panels with regard to SM programmes requesting less than 6 hours is not quite clear, especially to newcomers in the Panels.

Dr. Alves explained that taking into account the large operational overheads caused by very short SM programmes the OPC should, as was done in the past, decide on a case by case basis if time allocation should be recommended on balance, after consideration of both the scientific justification and these operational restrictions.
2. Adoption of the Agenda and Approval of the Draft Minutes of the 76th Meeting

The agenda of the 77th OPC meeting was adopted. The minutes of the 76th OPC meeting were approved without any changes.

4. Dates of the next meeting

The next OPC meeting is scheduled in the week of May 29 to June 2, 2006.

5. Reports on on-going Large Programmes

After a thorough discussion of the progress reports on the Large Programmes started in previous periods, the OPC approved all eight on-going Large Programmes for continuation or conclusion.

6. Presentation of Public Survey Proposals by the chairman of the Public Survey Panel (shifted after item 7)

Dr. Macchetto gave a presentation on the review procedures and evaluation process of the Public Survey Panel and made recommendations to the OPC with respect to the various proposals (Annex 1).
Dr. Macchetto was convinced that the investment of observing time in the identified core surveys will produce a huge scientific return and recommended ESO to think big in order to take the leadership in this promising field of science.
The chairman of the OPC thanked Dr. Macchetto for his detailed and informative presentation and on behalf of the OPC conveyed his appreciation for the work of the PSP.

A brief discussion on the available time and the length of the surveys took place. It was clarified that all survey teams will have to submit a detailed management plan. This plan will be monitored by ESO and the future time allocation is contingent to the agreed delivery schedule of the products.

The OPC fully endorsed the recommendation of the PSP and approved the 3 core proposals identified by the Public Survey Panel under the following conditions:

1) That the PI of a PS will send to the OPC a progress report every Period.
2) That the OPC is kept informed of the monitoring done by the PSP.
3) That a mid-term review takes place after about 2 years since the beginning of observations.
7. **Overview of P77 Targets of Opportunity**

For P77 29 ToOs were submitted of which about 50% were dealing with GRB science and were mostly coming from the teams that have been proposing this science over the last several periods.

In order to avoid duplications and conflicts, a strategy for time allocation had to be defined, as usual. So far the alternate month time allocation has worked rather well, but since the teams are not monolithic groups, this approach might not work anymore in the future.

**Panel Sessions**

1. **Welcome and Information to Panel Members**

Dr. Maccaacaro welcomed all participants and in particular the new Panel members and gave a summary of the agenda of the week and of the aspects to be considered regarding the evaluation of Normal Programmes, Large Programmes and ToOs.

2. **Report by Dr. Alves**

Dr. Alves gave an overview on the number of submitted proposals, their distribution over the observing sites, the pressure on the individual telescopes, and the time distribution in P77. He briefly introduced the main features of the Telescope Time Allocation Tool (TATOO) and explained how the merging across panels of the ranking lists per telescope works (ANNEX 2).

3. **Report on Instruments**

Dr. Spyromilio presented the La Silla Paranal status report including developments and news for P77 (ANNEX 3).

**Review of Applications by the Panels**

The Panels reviewed the applications for P77 from November 22 to 23. After the Panel meetings the OPC documents with the Panel recommendations were issued for the final discussion on November 24 and 25, 2005.

As was done in P75 and 76, joint sub-Panel discussions on LPs, ToOs and Normal Programmes were scheduled in order to sort out possible duplications and to coordinate the ranking.
C. OPC meeting – Part 2

1. Reports from the Panels

a) Ranking of Large and ToO Programmes

Large Programmes
The Panel chairs gave a detailed summary of the joint discussions on the Large Programmes submitted in their category (8 to Panel A, 5 to Panel B, 4 to Panel C and 3 to Panel D).

After a thorough discussion and voting for a final decision on the OPC level, all 6 Large Programmes that were strongly endorsed by the Panels were recommended for implementation.

Although in principle the OPC is very much in favor of supporting COROT, the immediate urgency of the submitted Large Programmes for COROT was not seen. Instead the OPC recommended that these proposals should be re-submitted with a better explanation of the scientific strategy.

The creation of a category for long-term monitoring programmes was recommended by various members of the OPC.

ToOs
The discussion of the ToOs submitted for P77 was based on the amalgamated ranking list (separated by GRB and Non-GRB ToOs) that had been elaborated by the chairs of Panel D1 and D2. It resulted in the unanimous endorsement to recommend 12 of the submitted GRB ToOs and 7 of the non-GRB ToOs for approval.

b) Normal Programmes and Scientific Highlights

The numbers of normal observing proposals submitted for Paranal and La Silla in the various OPC categories are given in Annex 4.

The OPC was pleased to see that the quality level of the proposed science remains very high and has even increased in a few specific areas like, for instance, interferometry. As it happened in previous periods, the OPC regrets that the very high pressure factor prevented a number of very good programs to be recommended for implementation. Among the top graded proposals are projects covering a large variety of scientific issues, from the study of a confirmed protocluster at a redshift of 3 or observations to spectroscopically confirm galaxies at z ~6.3 to imaging of planets around white dwarfs or observations of the inner regions of protoplanetary disks.
The chairmen of Panels C and D pointed out that the load for the sub panels has reached a critical level with about 130-150 proposals to grade per panel.

They emphasized that a third panel is needed in categories C and D, in order to reduce the workload and prevent a schedule that is too compressed for thorough discussion of the proposals to review.

Most of the Panel chairs reported that there was hardly any time for the joint discussions scheduled on day II of the Panel meetings. It was suggested that the Panel chairs should arrange these discussions among themselves on Thursday morning before the OPC meeting.

2. Discussion with the Chair of the Scientific Strategy Working Group
(Prof. Tim de Zeeuw)

In accordance with the wish of the OPC expressed at the previous meeting, Professor Tim De Zeeuw had accepted the invitation to discuss the proposed changes to the “Terms of Reference and Rules of Procedures for the OPC”.

Unfortunately due to heavy snowstorms flights had been cancelled Europe-wide which prevented Prof. De Zeeuw's presence. Therefore on his behalf the Director General gave a summary of the rationale and arguments behind the proposed changes.

There was a consensus by the OPC members on several points: the reduction of the term of service, with a 2-year period for OPC members and 1-year period for Panel members suggested as optimal, a formal OPC “nominating committee” being instituted, and that a formal national representation of the member states was not really needed although it should still be made sure that nations are represented adequately.

However, the OPC was of the opinion that one chair per sub panel is not enough since a sufficient quorum is needed for the discussion and voting on the Panel and OPC level, especially as concerns the discussion of Large Programmes and therefore it was recommended to keep the co-chairmanship in the sub-panels.

The Director General then presented a draft of the “Extra Rules for Dealing with Conflicts of Interests on OPC” for discussion and suggestions for minor modifications were taken note of.

Finally the OPC agreed that, taking into account the comments by the OPC, the Terms of Reference and Rules for dealing with Conflicts should be implemented already for P78.
3. Conclusions by the Director General

The Director General was very pleased to see that the meeting had been going very well and that the new procedures had been applied very successfully. She was happy about the outcome of the discussion of Large Programmes and Public Surveys and stated that the same procedures would be followed for evaluation of the VISTA proposals in P79. She regretted to learn that the submitted COROT proposals did not make it this time and hoped that the OPC would not fail to pay sufficient attention to this field of science.

She announced that the new OPC structure would be implemented gradually as from P78, so that the present members would finish their terms according to the existing rules, while new members would be appointed according to the new rules. She stated that in order to cope with the high workload in Panels C and D a third sub panel would be put in place for these categories. The OPC nominating Committee would be established as soon as possible.

4. Other business

OPC comments
Dr. Ruiz mentioned that in order to avoid retroactive corrective measures by the Panel chairs, which is very cumbersome, or even complaints by the PIs, the Prime Referee comments should be restricted to the scientific strengths and weaknesses and should stay as general as possible. At the same time she suggested that in order to avoid overheads in the workflow, Panel chairs should be enabled to edit the prime referee comment cards.

SM programmes < 6h
With regard to the issue on how to deal with service mode programmes requesting less than 6h it was agreed to treat them on a case by case basis, as was done in the past and that the corresponding statement in the Call for Proposals should be understood as a warning rather than as a rule.

Electra
It was recommended to implement the report and comment cards in “Electra”.

ESOFORM
For ToO programmes a box to indicate triggers is absolutely needed. The OPC found that the intention of box 10 of the application form “Report on the use of ESO facilities in the last 2 years” is still not clear enough and wondered if instead allowing free text specific questions should again be introduced.

end of document
ANNEX 1
PUBLIC SURVEYS PANEL

Report to the OPC

Duccio Macchetto
PSP/OPC November 2005

Membership & Meetings

- Stephan Charlot, MPA
- Annette Ferguson, ROE
- Duccio Macchetto, ESA & STScI, Chairman
- Dante Minniti, UC Chile
- Jean-Marc Petit, Besançon
- Dieter Reimers, Hamburg
- Gianni Zamorani, Bologna

- Meetings
  - April 27/28
  - June 22/23
Public Surveys Process
(from the ESO Bulletin)

• A Public Survey is understood to be an observing programme in which the investigators commit to produce and make publicly available, within a defined time, a fully reduced and scientifically usable data set that is likely to be of general use to a broader community of astronomers. The practical implementation of Public Imaging Surveys will proceed as follows.

• ESO will periodically issue a “Call for Public Imaging Survey Proposals”, for groups in the community to propose Public Imaging Surveys. [DONE]

• ESO will ask INAF (for the VST Consortium) and the OmegaCam Consortium to provide detailed descriptions for the observing programmes they intend to conduct in their guaranteed time (GTO) at the VST over the first 4 semesters. [DONE]

Public Surveys Process

• ESO will establish a Public Survey Panel (PSP) including scientists expert in a broad range of current astronomical research, with particular emphasis on those areas that can profit from Public Surveys. [DONE]
Public Surveys Process

• The PSP prime mandate will be to review the Public Survey Proposals and, taking into account the GTO programmes, elaborate a scientifically and observationally well coordinated set of Public Surveys. This process may well imply merging different proposals, or expanding their aims beyond the original ones.
  – We did this in the course of our two meetings. During meeting #1, we selected those proposals that were truly Survey proposals (total input 15, selected 6 as below)
  – We also selected a subset based on our evaluation of their scientific merit as the “core” proposals (3)
  – We recommended other proposals as possible additions to these “core” set (3)

On the basis of the achieved coordination the selected survey teams will modify the survey proposals, describing the scientific rationale, observational strategy, and data product specifications (e.g. photometric and astrometric accuracy, images, catalogs, delivery time, etc.) as agreed in the course of these activities.
  – During our second meeting we met with the PIs of selected proposals and the GTOs to achieve this coordination
Public Surveys Process

- The PSP will review these modified proposals and forward them to the OPC along with a document illustrating the criteria adopted for the optimization and coordination of the recommended set of surveys, and the motivations for having rejected others.
  - Being done at this meeting

- These resulting proposals for Public Survey may include proposals for subsequent proprietary observations with other ESO facilities which are designed to exploit the results of the survey in question.
- The OPC will then provide simultaneous recommendations on the time to allocate both to the survey and to its follow-up.
MEETING #1

• TASKS
  • To identify a core set of proposals suitable to be implemented as Public Surveys.
  • To identify proposals that could be added to these core proposals to enhance the scientific output of the survey
  • To identify those proposals that could or should be carried out as normal observing programs
  • To define the comments to be sent to each program PI and to follow up with a meeting of the PIs of pre-identified suitable proposals
  • To define an optimized and well coordinated set of Public Surveys.

SELECTION CRITERIA

• a) Is the proposal truly a Public Survey, or is it a normal observing program?
• b) If yes. Is this proposal of real importance to astronomy? Will it advance our understanding of astronomy in a major scientific area? Will it produce a data base that can be used for other important scientific objectives? Or will it only add incrementally to the science?
SELECTION CRITERIA

- c) At the end of the meeting we produced a list as follows:
  - A list of programs that could become the "core" program. For these we defined whether they could be taken as written or need changes (additions, subtractions, changes of observing modes etc).
  - A list of programs that could be added as "piggy-back" to the core. These are programs that may not stand on their own, but that can be achieved through a small or limited change to some of the "core" programs.
  - A list of programs that we felt should be pursued.
- d) In making these lists, we considered also that there are programs that can be carried out in bad or medium seeing, while others require good or excellent seeing. The list made this very explicit.

MEETING # 1

- The PSP met over two days at ESO
- We were briefed by the ESO staff on the parameters of the Public Surveys, on the preparations that ESO has made to select these proposals and the support of their implementation through observations, data collection and production of final products by the PI teams.
- We were briefed and discussed the role of the PSP in the pre-selection phase, and the role that the PSP is expected to play in support of the selection by the OPC and the ESO DG. We were also briefed and discussed the role that the PSP may play during the implementation phase of the selected programs.
MEETING # 1

• The main task of the first meeting was to discuss and make recommendations on the pool of proposals that had been submitted. PSP members had already read the proposal and were fully prepared for the in-depth discussion that was carried out. There was remarkable unanimity of opinion and the discussion proceeded effectively and rapidly. Comments for each proposal were recorded and will be transmitted to ESO for distribution to the PIs as appropriate.

• The PSP was very impressed with the high quality of many of the proposals and in particular those that we have pre-selected as “core” surveys. We believe that the investment of observing time in these surveys will produce a huge scientific return, directly as a result of the observations and later as follow-up programmes are implemented.

MEETING #1

• Recommendations

• 1) The PSP discussed with ESO the likely role that we can play following the submission of revised proposals. We accept (and recommend) that the PSP will review the revised survey proposals to establish whether the revisions are in line with the recommendations made to the PIs and whether the new proposals have made genuine strides to incorporate broader scientific objectives. The PSP will not make a scientific judgment of these proposals but will simply make a report to the OPC along the lines discussed above. The PSP Chairman will present these findings to the OPC on the first afternoon of their November meeting.

• 2) The PSP is also willing to take on the task of reviewing the effectiveness of the surveys during the implementation phase, both from the point of view of the rate of observations carried out versus the plan, and of the timeliness and quality of the products delivered by the survey teams. The modality and criteria for these follow-up activities will be discussed with the ESO staff and the PIs at the June meeting.
MEETING #1

• The PSP was informed of the commitments that ESO has made to the PIs of those proposals that will be selected to enable follow-up observations.

• There are several concerns with the current plan to approve these follow-up observations at the same time as the survey:
  • -We understand that one of the drivers in favour of an early approval is the idea that the survey teams need a reward for the considerable amount of work they are expected to do. We are convinced that the surveys we have selected will produce major scientific results even without a follow-up program and the teams will be best positioned to reap these scientific benefits ahead of anyone else; the survey is a reward in itself. We do not dispute that considerable additional scientific gains will result from the follow-up observations and recommend that a sizable fraction of time be allocated to these follow-up programs in the future.

• -However, it is far too early to define a well thought-out scientific program before the survey has been implemented and products and results begin to flow. Scientific priorities and our understanding of what is key to define the best scientific program change rapidly with time and should change following early results from the survey.

• -Finally, the submission of the follow-up programs after some of the products have been delivered will serve as an additional incentive to the PIs to speedily complete this task.
MEETING # 1

• We discussed these points at length and we recommend that ESO define suitable mechanisms to ensure that follow-up observations meet the same high standards and continue to be as scientifically competitive and up-to-date as regular observing programs.

• On the basis of this first experience with Public Surveys, ESO may wish to reconsider the policy of pre-allocating follow-up time to PS teams and request that these be submitted as a separate program to the OPC when a substantial (~30%) part of the survey has been carried out.

MEETING # 1

• The PSP noted that there were several proposals that were submitted as “survey” proposals but fell in the area of “large” observing programs

• We believe that the important scientific objectives that these proposals wish to investigate should be tackled but that the correct mechanism is the allocation of a substantial fraction of observing time in the VLT as well as the VST to large programs.

• We therefore recommend that the ESO Director General and the OPC find and define the mechanisms to enable these important observations.
MEETING #2

• PURPOSE OF THE MEETING
• To carry out the second phase of the plan outlined in the ESO procedures for Public Surveys
• The PSP presented a summary of the main issues and recommendations and the outline of possible scenarios for merging the proposals to expand the scientific objectives, while reducing the overall amount of observing time.
• The PI’s met on their own to discuss the merging possibilities. During the second day the PIs concluded their talks and debriefed ESO and the PSP on the agreements.

15 Survey Proposals Received

* Giant & Earth-mass Planet Observations (GEPO)
* A combined Microlensing &Transit Search
* Preparing for Next Generation Redshift Surveys
* The VST/Arecibo Galaxy Environment Survey (VAGES)
* The Star (Cluster) Formation History ... in the Small Magellanic Cloud
* TheVST Photometric HαSurvey of the Southern Galactic Plane
* Galaxy Evolution from Extremely Deep Imaging of the Extended CDFS
* UVEX: The Southern Galactic Plane UV-Excess Survey
* KIDS: A 1700 Square Degree Cosmological Survey with VST/ΩCam
* ΩBulge: A Deep 3 Colour Optical Survey of the Galactic Bulge
* A Complete Census and Map of the Universe at z<2
* Resolving the Extragalactic Background Light in the ASTRO-F Field
* The VST ATLAS
* Mass Determinations in Clusters of Galaxies
* UKIDSS Large Area and Galactic Clusters Surveys
* First Epoch Astrometric Snapshot of Galactic Globular Clusters
KIDS

- **PI: Kuiken**
- KIDS: a 1500-square degree cosmological survey with VST/OmegaCAM
- The survey has been designed with weak lensing as a major goal. Image quality is expected to be a factor of two better than SDSS, and slightly better than CFHTLS-Wide.
- It will yield a large, homogeneous data set with photometry from u0 to K, with 200,000 spectra available for the brightest galaxies in the field.
- Expected science results include a sample of z > 6 quasars, several thousand galaxy clusters beyond redshift 1, the power spectrum of the galaxy distribution around redshift 1, and a detailed understanding of the structure of galactic halos as function of galaxy type and environment.

KIDS

- The proposal has all the attributes of a "Public Survey" and should allow significant progress in several important science areas:
  - Structure of galaxy halos through galaxy-galaxy lensing; search for very high-z quasars; mapping of the acoustic peaks in the galaxy power spectrum; evolution of galaxies in clusters; Galactic white dwarf population; morphology of AGN host galaxies.
- This proposal was selected by the Panel as a "core" program.
KIDS

• Some issues needed clarification
• Given the large amount of observing time requested, it was felt that the need to observe 1700 sq. degrees was not justified enough.
• Another aspect we asked them to clarify is whether the overheads were included. They are assuming 25% overhead and 9-hour long nights.
• Contrast with Shanks who factors in 50% overheads and 9-hour nights and Drew who factors in 100% overheads and 8-hour nights.
• Given the large amount of time KIDS is already requesting, any significant increase in the overheads could have a non-negligible impact on the time required to complete the survey.

KIDS

• The proposal has been usefully merged with the UKIDSS proposal (P.I. Warren).
• Merging with the Oliver proposal (CENSUS) was indeed difficult.
• The area has been decreased from 1700 to 1500 sq.deg. They have added a suggestion of a mid-term review to verify whether the full area requested is justified.
• They have explicitly mentioned the assumptions adopted in the estimate of the requested time (25% overhead; 9 hours/night (it was 10 before and not mentioned))
• The addition of the appendix on the precision of the photometric redshift estimates can be very useful to the OPC to make your own judgement on the feasibility of the required goal.
KIDS

- We rank this as the #1 Public Survey proposal and recommend its selection by the OPC

VPHAS

- PI: Drew
- $\text{H}_\alpha$, $r'$, $i'$ survey for emission line objects in the southern Galactic Plane within $-5^\circ < b < 5^\circ$ down to point source limit of $r' \sim 21$ (1800 sq deg) for stars A0V and brighter,
- This enables full exploration of the galactic plane in all but most extincted regions
- Expect to increase number of known emission-line objects in the South by x10, produce catalogue of 200 million sources
VPHAS

• Facilitate studies of massive stars, intermediate mass evolved stars, nebulae, compact objects, galactic structure + …
• Complements northern IPHAS, ongoing at the INT, and other new and forthcoming surveys (UKIDSS GPS, SEGUE, RAVE, GAIA, etc)

UVEX

• PI: Groot
• u',g',r' survey for UV-excess objects in the southern Galactic Plane within -10°<b<10° down to point source limit of ~23 (3600 sq deg)
• Multi-epoch in g' (3 & 10 years)
• Will yield significantly improved sample of faint blue and/or high proper motion sources (eg. single/binary white dwarfs, subdwarfs B stars, interacting close binaries, distant B stars?)
• Complementary to VPHAS
VPHAS

• We could not have asked Drew & Groot to merge any better than they did.
• Groot's science seems to have taken a few hits (loss of some area, loss of some depth, loss of a second pass for proper motions) but most can be compensated by exploiting KIDS and by utilizing some GTO time
• The proposal has only gained in strength as a result of the merger and is an excellent example of a public survey.
• It will provide an outstanding dataset that can be exploited for a wide-variety of stellar, nebular and Galactic structure studies, a considerable fraction of which can be achieved without the need for spectroscopic follow-up.
• **We rank this as the # 2 Public Survey proposal and recommend its selection by the OPC**

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The aim of the proposal is to survey 4500 sq.deg. of the Southern Sky at high galactic latitudes to comparable depths to the SDSS in the North (about 2 magnitudes fainter than the previous photographic Southern Sky surveys).

This optical ATLAS should be complemented by a similar IR ATLAS to be produced by VISTA.

The main scientific driver is the detection of “baryon wiggles” through a massive spectroscopic follow-up of a large number of Luminous Red Galaxies at z ~ 0.6 with AAOmega (300 nights of AAOmega required).

Even if this particular science aim heavily relies on the availability of a large amount of spectroscopic time that is not under ESO control, the panel thought that the imaging part of the proposal “per se” would already be extremely valuable.

It is reasonable to anticipate that the resulting data-base would be used as a reference for a multiplicity of many astronomical projects for many years to come.

An additional bonus of such survey is that it does not require the good seeing conditions that are instead necessary for other surveys (e.g. KIDS).

The panel therefore thinks that this proposal fully qualifies as a public survey.
VST ATLAS

- This proposal is still very desirable in terms of execution (seeing and depth requirements) and because it provides an excellent dataset for addressing a clear primary science goal but which will easily find a multitude of other uses. It is thus definitely worthy of being a public survey.
- We rank this as the #3 Public Survey proposal and recommend its selection by the OPC

VST CENSUS

- PI Oliver
- A complete census and map of the universe at z<2
- It would complement with deep optical data the southern SWIRE/UKIDSS deep extragalactic survey fields.
- Overall the science was felt to be convincing, but the Panel was concerned about duplication: among the 4 fields proposed; 3 overlap with previous or ongoing surveys VST-16, CFHTLS, and the ESO Large Program led by PI: Franceschini.
- The proposers were encouraged to investigate merging with KIDS but this did not work out due to very different survey depths and areas.
VST CENSUS

- This was not recommended as a core proposal
- This should have sent a message to the proposers that some modification might be needed if it were to compete with the core proposals.
- However, it has been submitted in a form almost identical to its original one.
- Given the large amount of time required for the survey, an effort to sacrifice a bit of area (say a field or two) might have sent a more positive message to the PSP and OPC.
- We rank this as #4 in the Public Surveys proposals and do not recommend its adoption at this time
ANNEX 2
OPC77

VISAS - ODG

77th OPC meeting, 21-25 November 2005
Total number of proposals received in P77

838 proposals received for La Silla and Paranal

20 Large Programs (compare to 8 in P76)

29 Target of Opportunity (8 RRM)

(85% of proposals arrive in the last 36 hours)
The ESO community

Number of Proposals (w/o LPS)

0 100 200 300 400 500 600 700 800 900

1977 2005

Paranal vs. La Silla

Some proposals (~ 5%) were submitted to both Paranal and L
Scientific areas P77 (number of proposals)
Relative program length (average)
P77 time distribution: 1359 nights total

- Non-science time: 9%
- Calibrations
- DDT (5% of Science)
- GTO + SDT
- LP commitments
- Available to OPC77
Your mission today:

- **Really good!**
  - All proposals with grade < 3.0 will be used in the schedule.
Merging panels (per telescope)

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(...)

ESO-VISAS 2005
Merging panels (per telescope)

(...)

1
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6
7

1
2
**Telescope Time Allocation Tool**

**TaToO is ESO's new Time Allocation Tool. This software scheduler is a combination of a user-friendly graphical user interface and an intelligent constraint-programming engine fine-tuned to ESO’s scheduling problem. TaToO is able to produce a high quality and reliable schedule taking into consideration all constraints of the recommended programs for all telescopes in about 15 minutes. This performance allows schedulers at ESO-VISAS to simulate and evaluate different scenarios, optimize the scheduling of engineering activities at the observatories, and in the end construct the most science efficient schedule possible.**
Of the 458 OPC recommended runs, 40\* (~9\%) could not be scheduled but 130 runs below the “cut-off” and with a grade better than 3.0 (why? because of localized RA pressure, extra science time from converted engineering time, sma.

* Most of these programs have approval.
ANNEX 3
La Silla Paranal status report

Jason Spyromilio

OPC November 2005
P75 summary

• Nights of science on the telescopes
  – UT1 93% (of this 3% lost to technical probs)
  – UT2 91% (1.8%)
  – UT3 90% (3.1%)
  – UT4 90% (2.7%)
  – NTT 88% (2.6%)
  – 3.6-m 84% (1%)
  – 2.2-m 94% (1.3%)

• The weather on Paranal has been normal but La Silla has had its worst winter in memory.
P76 schedule
APEX
APEX

- Inaugurated September 2005
- 12-m sub-mm telescope located at the Llano Chanjantor at the edge of the ALMA reserve
- A collaborative project between ESO 27%, Onsala Space Observatory in Sweden 23% and the Max Planck Institute for Radioastronomy 50%.
APEX

- 345 GHz receiver offered
- LABOCA (bolometer array) to be delivered in January
- 230 GHz receiver to be installed in February
- Chopping secondary by March TBC.
Changes for P77 on La Silla

• EFOSC2
  – Long-Slit Spectroscopy (LSS) and Imaging (IMA) offered in service mode. (all modes offered in VM - not actually news)

• TIMMI2
  – Will not be offered from P78 (inclusive)
changes P77

• MIDI
  – is offered on 6 baselines with 2 UTs and with 3 baselines with 2 ATs.

• AMBER
  – is offered on 4 baselines with 3 UTs

• VISIR
  – Spectrometer: additional medium- and high-resolution settings are offered
  – Increased sensitivity for spectroscopic acquisitions using the Imager

OPC November 2005
More news P77

- **UVES**
  - a new standard setting is offered in the RED arm of UVES with a central wavelength of 600 nm
  - the image slicer #3 can now be used in the DIC2-760 nm standard setting
  - a set of eight interference filters for long-slit (30") spectroscopy of extended objects is offered (in visitor mode only).
Still more news for P77

• FORS1
  – A new high through-put Volume Phased Holographic grating is offered for FORS1. The new 1200B grism covers the range 373 – 497 nm with a dispersion of 0.61 Å/pixel and replaces the 1200g grism in the FORS1 standard grism set.
  – With the availability of the 1200B grism, the echelle mode has been retired

• FORS2
  – A new HIT mode, the multiple-shift mode, becomes available for fast simultaneous spectroscopy of science and reference targets.

OPC November 2005
Further news P77

• Rapid Response Mode (RRM)
  – First ‘hot’ activation were received in P75 and P76 with on-target times <10min.
  – ISAAC and FORS2 on UT1
  – UVES and FORS1 on UT2
continue to be offered in this mode in P77.
VIMOS

- Set of 4 new high efficiency VPH grisms installed (HR RED) at beginning of P76.
- Gain in efficiency over old grisms a factor of >1.5 in the wavelength range 647-872nm plus the recovery of one additional quadrant Q4, which so far had to use an HR ORANGE grism instead.
- New grisms will be reflected in ETC for phase 2 of P77
Instrument News

- **VIMOS**
  - A new flexure compensation system has been installed in Q3.
  - Flexures are down to <2pix peak-to-peak amplitude over a 180 deg turn of the instrument.

Upgrades for Q1, 2, 4 to follow in December
• NACO
  – Increased downtime and some cancelled visitor runs in P75/76 due to:
    • Cryo-Cooler failures due to power and overheating problems of compressors and contamination of cold heads
    • Field Selector failure and time consuming and expensive recovery
    • Adaptor Rotator failure
Instrument News

• ISAAC
  – Instable pupil images detected in April
  – Extensive intervention to stabilize the cold structure inside the cryostat was carried out in May

ISAAC spider holding the cold structure

OPC November 2005
Instrument News

• MIDI
  – AT operation started October ’06
  – MIDI+AT performance degraded due to lack of VCMs
  – MIDI+AT data quality under investigation

• AMBER
  – Science operation with 3 UTs started October ‘06
  – Performance currently limited by the lack of fringe tracking
Instrument News

Paranal

• First ULTRACAM Visitor Run
  – Smooth installation
  – Smooth operation
  – Second run just starting

• First DAZLE run (Jan’06)
  – Had to be cancelled because of instrument problems

QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.
Instrument News

- SOFI: several interventions were required to maintain operation. Stabilized for the time being.
- SUSI2: windowed read-out mode restored.
- TIMMI2: polarization mode commissioned and characterized.
- WFI: detector decontamination successful after overheating incident in the detector head during a warm-up.
- FEROS: ADC installation delayed due to (repeatedly) wrongly manufactured prisms.
Telescope usage

UT1

UT2

UT3

UT4

P63 P64 P65 P66 P67 P68 P69 P70 P71 P72 P73 P74 P75

P67 P68 P69 P70 P71 P72 P73 P74 P75

P67 P68 P69 P70 P71 P72 P73 P74 P75

P67 P68 P69 P70 P71 P72 P73 P74 P75

P63 P64 P65 P66 P67 P68 P69 P70 P71 P72 P73 P74 P75

P67 P68 P69 P70 P71 P72 P73 P74 P75

P67 P68 P69 P70 P71 P72 P73 P74 P75

P67 P68 P69 P70 P71 P72 P73 P74 P75
Telescope usage

VLTI

2.2 P75:
• FEROS: 50.7%
• WFI: 49.3%

NTT

OPC November 2005
• FEROS: 50.7%
• WFI: 49.3%
Observing modes

UT1

UT2

UT3

UT4

OPC November 2005
Observing modes

VLTI

0% 20% 40% 60% 80% 100%

P73 P74 P75

Engineering

Commissioning

Visitor

Service

NTT

0% 20% 40% 60% 80% 100%

P73 P74 P75

Engineering

Science

Commissioning

Visitor

Service

P73 P74 P75

2.2

3.6

Of November 2005
Downtime breakdown

Up to P68: fraction of operational time – From P69 on: fraction of science time
Downtime breakdown

VLTI

NTT

3.6

2.2

OPC November 2005
## Period 77

### Distribution of submitted observing proposals

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