

Astronomy NCRIS: 2007/08 Business Plan

2nd November 2007

Contents

Executive Summary.....	2
Expected Progress	2
Astronomy Australia Limited (AAL)	2
Anglo-Australian Observatory	2
Australian membership of the Gemini International Partnership	3
Giant Magellan Telescope Design Development Phase	3
Australian Giant Magellan Telescope Project Office	3
Development of ASKAP	4
PILOT Design Study	4
Material Changes.....	4
Risks and their Mitigation	4
Status as of 30 th June 2007	4
Proposed governance, management, access and pricing arrangements.....	5
Proposed promotional activities	6
Staffing and financial projections.....	7
AAL Operations staff	7
Interest projections	7
2007/08 astronomy NCRIS transactions – GST exclusive.....	8
Change in cash balance (GST exclusive)	9
Milestones	10
Astronomy Australia Ltd.....	10
Anglo-Australian Observatory	11
Refurbishment of facilities	11
Anglo-Australian Telescope Instrument.....	12
Australian membership of the Gemini International Partnership	13
GMT Design Development Phase	14
Australian GMT Project Office	14
PILOT Design Study	15

Executive Summary

Of the seven projects funded through the NCRIS agreement, six will be acted upon during the period of this Annual Business Plan. The MWA project will not commence until 2009. A brief description of the activities to progress Astronomy Australia Limited and six of the seven projects is outlined below.

Expected Progress

Astronomy Australia Limited (AAL)

The 2006/07 implementation period saw AAL established to co-ordinate matters of national astronomy infrastructure. In 2007/08, AAL will operate fully in this role by electing a chair and full board of directors who will meet quarterly to discuss and act upon issues associated with astronomy infrastructure in Australia. During this period, AAL will ensure it is advised by appropriate committees, sign the remaining NCRIS subcontracts, formulate a process for the strategic options funds and establish a facility ownership model appropriate for Australian astronomy infrastructure. In addition, it will maintain clear and open communications with the Australian astronomy community through quarterly electronic newsletters and a regularly updated website. Community input into individual projects is coordinated at the project level.

Anglo-Australian Observatory

The Anglo-Australian Observatory (AAO) is the national optical/infrared observatory with facilities at Siding Spring, near Coonabarabran, NSW and Epping, NSW. It is jointly owned and operated by the Australian Government and the United Kingdom Government.

Refurbishment of facilities

The facilities at the Anglo-Australian Telescope (AAT) are to be refurbished to assist in maintaining them at a world-class standard for at least the next ten years. Due to the complex nature of the AAT facility, most of the activities that will take place during the period of this Annual Business Plan involve the inspection of and reporting on the various AAT subsystems such as the dome, infrastructure, telescope, architectural and building. This will confirm the nature, urgency and extent of the refurbishments required. In addition, contracts for most refurbishment works will be signed by the end of this period with initial refurbishment works to begin in the final quarter of 2007/08.

Anglo-Australian Telescope Instrument

A new instrument for the Anglo-Australian Telescope, providing world-leading scientific capabilities, will be developed, built and installed. The work will be undertaken primarily within the AAO's instrumentation facility and ownership of the new instrument will reside with the owners of the AAT.

The conceptual design process will be undertaken during the period of this Annual Business Plan. This process involves presenting the science cases and current technical concepts for potential new instruments to the AAO Users' Committee and the Australian community for discussion. From this discussion, documents outlining the science and functional requirements of the new instrument will be developed and a final conceptual design review undertaken. Feedback on this review will be sought from the user community to inform the decision on which instrument to pursue. This will be decided by the AAT Board in the final quarter of 2007/08 and submitted to the AAL Board for approval.

Australian membership of the Gemini International Partnership

Australia is currently a member of the International Gemini Partnership through an agreement between the US National Science Foundation (NSF) and the Australian Research Council (ARC). This project will provide for the continuation of Australia's membership of this Partnership so as to provide access to 6.19% of the two Gemini 8m telescopes.

During the period of this Annual Business Plan, the main activity will be the transfer of Australian Gemini Office (AusGO) from the Australian National University to the Anglo-Australian Observatory. In addition, payment of access costs via the Sydney University Trust Fund and CSIRO will cease and the new joint NCRIS/ARC LIEF funding arrangement will commence, with AAL becoming the recipient of both sources of funding. Throughout this period, AusGO will continue to maintain its support of Australia's use of 8m-class telescopes, and AAL will take responsibility for the financial management of Australia's share of Gemini from 2008.

Australia is also required to contribute a 6.19% share of the costs of the Aspen instrument program which will equip the Gemini telescopes with the next generation of state-of-the-art instruments over the next 5 years. 2007/08 will be a critical year for this program with the commencement of concept design studies for the Wide-Field Multi-Object Spectrograph (the major Aspen instrument), and a review of Aspen funding (in particular, the ability of the partner countries to commit to the full program) undertaken by the International Gemini Board. As more information becomes available, AAL will look to identify Australia's financial commitment to the Aspen program over the life of the NCRIS grant (2007/08 Q4). This will affect the funds available for NCRIS strategic options.

Giant Magellan Telescope Design Development Phase

The Australian National University (ANU) is currently a member of the Giant Magellan Telescope (GMT) project, and intends to commit to 5% of the GMT Design Development Phase (DDP). In 2007/08, AAL will seek to join the GMT DDP, also at the 5% level. AAL and ANU will embark on an equal partnership to maximise Australian involvement in GMT, and will sign a MoU to confirm their partnership.

By the end of the first year of the DDP, AAL and ANU will review all aspects of Australia's involvement in the GMT project, and AAL will advise the NCRIS Committee on the possible expenditure of the strategic options component of the NCRIS funds on the second and third years of the DDP.

Australian Giant Magellan Telescope Project Office

The Australian GMT Project Office (AGMTPO) will be based at ANU. The overall objective of AGMTPO is to maximise the national benefit of GMT membership (for example, by making industry aware of potential GMT contracts) by working closely with the international GMT Project Office in Pasadena, Australian academia, and Australian industry.

During the period of this Annual Business Plan, AGMTPO will primarily focus on disseminating information about the project to academics, industry and the general public, and will act as a clearing house for all enquiries about the GMT project. It will also prepare a case for the funds from the astronomy NCRIS strategic options to be used for years two and three of the GMT DDP.

Development of ASKAP

The Australian Square Kilometre Array Pathfinder (ASKAP) is a technology testbed for the proposed Square Kilometre Array (SKA) that potentially will be built in Western Australia.

Given the major increase in investment in this project, CSIRO are currently updating the project plans. Once AAL and CSIRO sign an NCRIS sub-contract (before the end of 2007), more details will be available.

PILOT Design Study

The proposed PILOT is a 2-metre-class optical/infrared telescope that would be built and operated at Concordia Station, Dome C, in the Australian Antarctic Territory. PILOT is the first stage of the development path for a possible large optical observing facility in Antarctica.

UNSW will establish and host the science office that will be responsible for the initiation and completion of the Design Study for PILOT during the period of this Annual Business Plan. This Design Study will be managed by the AAO under subcontract to UNSW. The products of this Design Study will include a detailed costing for the construction and whole-of-life operation of the PILOT telescope, identification of risks and a risk mitigation strategy, identification of potential construction contractors and a spend profile for the construction phase of PILOT. The office will produce a detailed science case for PILOT referring specifically to the site characteristics at Dome C, and will also prepare a case for the funds from the astronomy NCRIS strategic options to be used towards the construction of PILOT.

Material Changes

There are no material changes for the Astronomy NCRIS at this time relative to the Astronomy NCRIS Funding Agreement.

Risks and their Mitigation

The key financial risk for the astronomy NCRIS lies in the substantial percentage of the programme due in US dollars. The Astronomy NCRIS grant assumes an exchange rate of 0.75 and AAL will not have sufficient funds to complete all projects if the exchange rate falls below this. This risk will be mitigated by aiming to hedge the 2008, 2009 and 2010 Gemini Operations payments, which are a large fraction of the US dollar commitments, at a rate greater than 0.75.

Status as of 30th June 2007

Astronomy Australia Limited (AAL) was incorporated in April 2007 to co-ordinate matters of national astronomy infrastructure. It has established an office at Swinburne University of Technology and appointed a Chief Operating Officer, Company Secretary, Accountant, Lawyer and Auditor, as well as an interim board of directors. It has implemented insurance arrangements and appropriate banking and financial control arrangements for managing multi-million dollar grants. It has put in place many of the contracts necessary to manage the various NCRIS projects, and established regular communications with stakeholders of Australian Astronomy to ensure information about AAL decisions is disseminated effectively.

The main change encountered during this period was the significantly increased funding for the ASKAP project awarded to CSIRO. This has understandably led to updates to the ASKAP project plan, delaying the signing of the ASKAP NCRIS subcontract between AAL and CSIRO.

Proposed governance, management, access and pricing arrangements

With the recent creation of AAL, all stakeholders of Australian astronomy now have the option of a single point of accountability for future national astronomy infrastructure projects. However, one of AAL's first tasks will be to build its reputation with all stakeholders of Australian astronomy, to ensure its high level governance role is converted from theory into practice: AAL will only be a peak body for Australian astronomical infrastructure when the stakeholders of Australian astronomy declare it so.

The governance arrangements during the period of this Annual Business Plan will be the same as described in section 4, 'Governance Arrangements' of the Project Plan. Specifically, during this period:

- the chair and board of directors of AAL will be elected by formal vote of the member representatives.
- AAL will create the Australian Giant Magellan Telescope Advisory Committee (AGMTAC) to advise on GMT matters.
- an appropriate advisory committee for PILOT will be appointed.
- AAL will investigate the possibility of having a single advisory committee to cover all optical/IR infrastructure (AAT + 8m class telescopes) rather than having separate AAT and Gemini advisory committees.
- Management and reporting for each project will be undertaken by the relevant party:
 - AAO - AAT refurbishment and AAT instrument
 - AAO - Australian Gemini Membership and Aspen Instrument Program (for AusGO)
 - ANU – GMT DDP and AGMTPO
 - CSIRO – ASKAP
 - UNSW – PILOT

The access and pricing arrangements during the period covered by this Annual Business Plan will be the same as described in section 3, 'Access and Charging Arrangements' of the Project Plan. Briefly, the following principles will apply in relation to access to the facilities and charging for their use:

- Time assignment for the facilities will be merit-based in accordance with established application and peer-review procedures;
- Effective data management systems will be embedded within the facilities, with services including comprehensive on-line archives, pipeline data-reduction tools and researcher access to reduced data products and catalogues to be provided; and
- Access to the facilities will be provide free of charge (although some of the costs entailed in using the facilities – such as travel and accommodation costs – may be borne by users).

Proposed promotional activities

During the period of this Annual Business Plan, AAL will build upon its initial reputation and increase its profile with the Australian astronomical community. This will be achieved through:

- successful implementation of the Radio and Optical Astronomy NCRIS programme
- quarterly electronic newsletters which provide clear and open communications about AAL and the status of Australia's astronomy infrastructure
- an up-to-date website which highlights major AAL/infrastructure news items
- presentations where appropriate at committee/staff meetings

In addition, some of the funded projects will also undertake their own promotional activities:

- AGMTPO
 - disseminate information on opportunities offered by the GMT at a national meeting of academics and through travel to Australian universities and other appropriate institution
 - construct a AGMTPO web site and publish on-line
 - brochures for AGMTPO to be distributed in planetaria, science centres, and observatory visitor centres. Other brochures will be available for industry.
- PILOT
 - construct a PILOT Project web site and publish on-line
 - PILOT project presented at Second ARENA Conference in Berlin

Staffing and financial projections

AAL Operations staff

It was realised towards the end of the 2006/07 Interim Implementation Plan that the staffing arrangement for AAL of 0.8FTE would not be sufficient to meet anticipated milestones. For 2007/08, it is expected that staffing will increase with the addition of an assistant to the COO at 0.4FTE.

Interest projections

During 2007/08, AAL expects to earn approximately \$550,000 in interest from the NCRIS grant and matching NCRIS cash contributions. The amount of interest earned during 2007/08 will be significantly higher than that expected for future years. This is due to the front-loading of the NCRIS grant profile from DEST and short delays in passing the grant to participants due to final negotiation of the sub-contracts.

This 2007/08 interest estimate will fluctuate depending upon:

- Timing of the receipt of the 2007/08 NCRIS Grant from DEST;
- Timing of payments to projects yet to be finalised: ASKAP and GMT DDP;
- Interest rates available.

This interest will be held in reserve to be allocated by the AAL Board to one or more of the current astronomy NCRIS projects

2007/08 astronomy NCRIS transactions – GST exclusive

Facility	Item	Cash / in-kind	Transaction Type	From / To	Budget receipts	Budget payments
Gemini	ASPEN	Cash	Receipts	GSKA MNRF	\$850,582	
Gemini	ASPEN	Cash	Receipts	GSKA MNRF	\$374,518	
Gemini	Gemini operations	In-kind	Receipts	ARC	\$803,669	
Gemini	Gemini operations	In-kind	Payments - International Access	NSF (USA)		\$803,669
AAL	AAL Operations	Cash	Receipts	AAL members	\$163,040	
AAL	AAL Operations	Cash	Payments - Operating	AAL		\$119,058
AAO	AAT instrument	Cash	Payments - Capital	AATB		\$200,000
AAO	AAT refurbishment	Cash	Payments - Operating	AATB		\$250,000
GMT	GMT PO	Cash	Payments - Operating	ANU		\$90,000
PILOT	PILOT Design Study	Cash	Payments - Operating	UNSW		\$280,000
AAO	AAT instrument	Cash	Payments - Capital	AATB		\$200,000
AAO	AAT refurbishment	Cash	Payments - Operating	AATB		\$250,000
GMT	GMT DDP	Cash	Payments - International Access	GMT PO (USA)		\$1,111,111
CSIRO	ASKAP	Cash	Payments - Capital	CSIRO		\$654,600
CSIRO	ASKAP	Cash	Payments - Capital	CSIRO		\$785,520
PILOT	PILOT Design Study	Cash	Payments - Operating	UNSW		\$280,000
Gemini	Gemini operations	Cash	Receipts	ARC	\$59,025	
Gemini	Gemini operations	Cash	Payments - International Access	NSF (USA)		\$59,025
AAL	AAL Operations	Cash	Receipts	NCRIS	\$237,140	
AAL	AAL Operations	Cash	Payments - Operating	AAL		\$237,140
AAO	AAT instrument	Cash	Receipts	NCRIS	\$1,470,000	
AAO	AAT refurbishment	Cash	Receipts	NCRIS	\$1,150,000	
Gemini	ASPEN	Cash	Receipts	NCRIS	\$1,238,000	
Gemini	AusGO	Cash	Receipts	NCRIS	\$300,000	
Gemini	Gemini operations	Cash	Receipts	NCRIS	\$1,596,692	
GMT	GMT PO	Cash	Receipts	NCRIS	\$64,560	
CSIRO	ASKAP	Cash	Receipts	NCRIS	\$308,608	
PILOT	PILOT Design Study	Cash	Receipts	NCRIS	\$440,000	
AAO	AAT instrument	Cash	Payments - Capital	AATB		\$200,000
AAO	AAT refurbishment	Cash	Payments - Operating	AATB		\$300,000

Facility	Item	Cash / in-kind	Transaction Type	From / To	Budget receipts	Budget payments
Gemini	ASPEN	Cash	Payments - International Access	NSF (USA)		\$1,238,000
Gemini	AusGO	Cash	Payments - Operating	AATB		\$75,000
Gemini	Gemini operations	Cash	Receipts	ARC	\$900,000	
GMT	GMT PO	Cash	Payments - Operating	ANU		\$81,000
CSIRO	ASKAP	Cash	Payments - Capital	CSIRO		\$883,710
PILOT	PILOT Design Study	Cash	Payments - Operating	UNSW		\$280,000
Gemini	Gemini operations	Cash	Payments - International Access	NSF (USA)		\$450,000
Gemini	Gemini operations	Cash	Payments - International Access	NSF (USA)		\$798,346
AAO	AAT instrument	Cash	Payments - Capital	AATB		\$420,000
AAO	AAT refurbishment	Cash	Payments - Operating	AATB		\$300,000
Gemini	AusGO	Cash	Payments - Operating	AATB		\$75,000
GMT	GMT PO	Cash	Payments - Operating	ANU		\$20,200
CSIRO	ASKAP	Cash	Payments - Capital	CSIRO		\$949,170
PILOT	PILOT Design Study	Cash	Payments - Operating	UNSW		\$160,000
GMT	GMT PO	In-kind	Receipts	ANU	\$132,200	
GMT	GMT PO	In-kind	Payments - Operating	ANU		\$132,200
PILOT	PILOT Science Centre	In-kind	Receipts	UNSW	\$167,000	
PILOT	PILOT Science Centre	In-kind	Payments - Operating	UNSW		\$167,000
TBD	TBD	Cash	Receipts	Interest	\$550,000	

Change in cash balance (GST exclusive)

The above transactions will result in a reduction in the cash balance held by AAL across its Astronomy NCRIS accounts of \$1,044,715:

Cash as of 30th June 2007 \$9,082,393 (= \$9,997,004 – \$914,611; actual cash – GST liability)

Change (\$1,044,715)

Cash as of 30th June 2008 \$8,037,678

Milestones

Astronomy Australia Ltd

Period	Activities and Milestones
2007-08 Q1 (Jul07-Sep07)	<ul style="list-style-type: none"> • Strategic options process approved • Hire additional staff to assist the COO of AAL • Elect chair and full board of directors • Second board meeting held • Quarterly newsletter published • Director remuneration agreed upon • Annual general meeting with the full participation of all members held • Establish membership fees for 2007/08 • Establish the Australian GMT Advisory Committee • Formalise relationship with Australian Antarctic Astronomy Advisory Committee (AAAAC) and incorporate it under AAL. • NCRIS project report published
2007-08 Q2 (Oct07-Dec07)	<ul style="list-style-type: none"> • Third board meeting held • Quarterly newsletter published • ASKAP contract with CSIRO signed
2007-08 Q3 (Jan08-Mar08)	<ul style="list-style-type: none"> • Fourth board meeting held • Quarterly newsletter published
2007-08 Q4 (Apr08-Jun08)	<ul style="list-style-type: none"> • Fifth board meeting held • Quarterly newsletter published • 2008/09 business plan approved • Establish a single advisory committee to cover all optical/IR astronomy infrastructure (AAT + 8m class telescopes) • Establish a facility ownership model appropriate for Australian astronomy infrastructure • MWA contract with the University of Melbourne signed • Preliminary instrument study reports for GMT DDP due • Identify Australia's financial commitment to the Aspen instrument program over the life of the NCRIS grant (dependent on international committee timelines)

Anglo-Australian Observatory

Refurbishment of facilities

Period	Activities and Milestones
2007-08 Q1 (Jul07-Sep07)	<ul style="list-style-type: none"> • Initialise AAT infrastructure refurbishment project • Hire project manager • Identify suitable consultants • Commence design of air conditioning chiller replacement • Tender for purchases of replacement capital equipment • Prepare program for instrumentation refurbishment • Prepare program for architectural and buildings works • Commission inspection and report phase activities on AAT dome subsystems: <ul style="list-style-type: none"> ○ structure and fabric ○ drive and control systems ○ crane, bogies and rail ○ shutter and windscreen ○ maintenance platform ○ tube access platform • Commission inspection and report phase activities on infrastructure subsystems <ul style="list-style-type: none"> ○ primary mirror elevator and trolley ○ main floor hatch and 2nd floor hatch
2007-08 Q2 (Oct07-Dec07)	<ul style="list-style-type: none"> • Commission inspection and report phase activities on AAT telescope subsystems: <ul style="list-style-type: none"> ○ telescope mount ○ main drive and control ○ hydrostatic support system ○ telescope optics ○ mirror support systems and encoders • Commission inspection and report phase activities on architectural and building subsystems: <ul style="list-style-type: none"> ○ fabric ○ HVAC ○ electrical ○ hydraulic ○ lifts • Scope and design works for instrumentation refurbishment work packages • Scope and design works for architectural and building refurbishment work packages • Scope and design HVAC work packages • Consultants and specialists undertake inspections and deliver reports on telescope subsystems
2007-08 Q3 (Jan08-Mar08)	<ul style="list-style-type: none"> • Tender for air conditioning chiller replacement • Consultants and specialists undertake inspections and deliver reports on dome subsystems • Review reports and prepare tenders for dome subsystems refurbishment • Consultants and specialists undertake inspections and deliver reports on architectural and building subsystems • Review reports and prepare tenders for architectural and building

	<p>systems refurbishment</p> <ul style="list-style-type: none"> • Identify architectural and building refurbishment work packages for internal and external resources, tendering as required • Sign contract for air conditioning chiller replacement • Review reports and prepare tenders for telescope subsystems refurbishment • Sign contracts for telescope subsystems refurbishment
2007-08 Q4 (Apr08-Jun08)	<ul style="list-style-type: none"> • Commission inspection and report phase activities on infrastructure subsystems <ul style="list-style-type: none"> ◦ aluminising plant • Identify instrumentation refurbishment work packages for internal and external resources, tendering as required • Commence telescope subsystems works • Commence miscellaneous instrumentation works • Commence miscellaneous architectural and building works. • Sign contracts for dome subsystems refurbishment • Sign contracts for architectural and building works • Sign contracts for instrumentation refurbishment • Install and commission air conditioning chiller replacement • Review reports and prepare tenders for infrastructure subsystems refurbishment • Ongoing miscellaneous works • Sign contracts for infrastructure subsystems refurbishment • Commence telescope subsystems refurbishment works • Commence architectural and building refurbishment works • Ongoing miscellaneous works

Anglo-Australian Telescope Instrument

Period	Activities and Milestones
2007-08 Q1 (Jul07-Sep07)	<ul style="list-style-type: none"> • Initialise new AAT instrument project • Appoint project manager, project scientist and other key members of project team • Start conceptual design study • Explore nominal and alternative conceptual designs • Develop revised science cases
2007-08 Q2 (Oct07-Dec07)	<ul style="list-style-type: none"> • Hold community workshop to discuss science case and conceptual design • Draft initial science requirements document • Draft initial functional requirements document
2007-08 Q3 (Jan08-Mar08)	<ul style="list-style-type: none"> • Complete initial science requirements document • Complete initial functional requirements document • Write conceptual design report • Hold conceptual design review • Solicit feedback from user community on final conceptual design review • Complete conceptual design study
2007-08 Q4 (Apr08-Jun08)	<ul style="list-style-type: none"> • AAT Board to decide on instrument (AAL Board to review in 2008/09 Q1) • Start preliminary design phase

Australian membership of the Gemini International Partnership

Period	Activities and Milestones
2007-08 Q1 (Jul07-Sep07)	<ul style="list-style-type: none"> • Continue current level of support for RSAA-based AusGO • Begin recruitment of Australian Gemini Scientist (AGS) • Begin recruitment of Australian Deputy Gemini Scientists (DGS)
2007-08 Q2 (Oct07-Dec07)	<ul style="list-style-type: none"> • Continue current level of support for RSAA-based AusGO • Complete recruitment of AGS • Complete recruitment of Australian DGS • Prepare for AusGO transfer from RSAA to AAO • Payment of access costs associated with Australia's 6.19% share in Gemini via the Sydney University Trust Fund ceases.
2007-08 Q3 (Jan08-Mar08)	<ul style="list-style-type: none"> • AusGO begins operations from AAO with new AGS and DGS • New joint NCRIS/ARC LIEF funding arrangement commences, with AAL becoming the recipient of both sources of funding • Payment for access for the first half of 2008 to be made. • AusGO supports Australian involvement in 8m-class telescopes by: <ul style="list-style-type: none"> ○ managing Australian time allocation processes for both Gemini and Magellan ○ AGS and DGS performing specified Gemini support duties ○ supporting Gemini instruments as required ○ managing the two Magellan support astronomers
2007-08 Q4 (Apr08-Jun08)	<ul style="list-style-type: none"> • AusGO supports Australian involvement in 8m-class telescopes

GMT Design Development Phase

Period	Activities and Milestones
2007-08 Q1 (Jul07-Sep07)	<ul style="list-style-type: none"> MoU signed between the ANU and AAL relating to the GMT DDP and Australian engagement with GMT should GMT proceed to construction. This MoU also states that AAL and ANU will agree to each appoint one of the two board representatives to the GMT Board, with each approving both nominees.
2007-08 Q3 (Jan08-Mar08)	<ul style="list-style-type: none"> Initial design study contracts for GMT DDP let
2007-08 Q4 (Apr08-Jun08)	<ul style="list-style-type: none"> Preliminary instrument study reports for GMT DDP due Review of all aspects of Australia's involvement in the GMT Project including the nature and constitution of the Australian membership AAL to provide advice to the NCRIS Committee on the possible expenditure of the 'strategic options component of the NCRIS funds on the second and/or third year of the DDP

Australian GMT Project Office

Period	Activities and Milestones
2007-08 Q1 (Jul07-Sep07)	<ul style="list-style-type: none"> Travel to a GMT project scientists working group meeting at GMT project office in Pasadena Disseminate information on opportunities offered by the GMT at a national meeting of academics AGMTPO staff in place First AGMTAC meeting completed A webpage for the AGMTPO made available online and webpage maintenance initiated Quarterly report to AAL.
2007-08 Q2 (Oct07-Dec07)	<ul style="list-style-type: none"> Industry database online Public brochure completed Industry brochure completed Second AGMTAC meeting completed Quarterly report to AAL.
2007-08 Q3 (Jan08-Mar08)	<ul style="list-style-type: none"> Draft AAL DDP funding justification circulated Promotional material presented to Minister of DEST and Chief Scientist Third AGMTAC meeting completed Quarterly report to AAL.
2007-08 Q4 (Apr08-Jun08)	<ul style="list-style-type: none"> Revised AAL DDP funding justification circulated Fourth AGMTAC meeting completed Final AAL DDP funding justification submitted

PILOT Design Study

Period	Activities and Milestones
2007-08 Q1 (Jul07-Sep07)	<ul style="list-style-type: none"> • Australian Antarctic Astronomy Advisory Committee (AAAAC) formed. • Risk Workshop convened. Outcomes will be a high-level risk management strategy with options identified and rated by importance. The deliverables will be an Executive Summary and a Risk Assessment Report. • Project Leader, Project Manager and Telescope Scientist appointed. • Subcontract for technical work let to AAO. • PILOT Project web site on-line, hosted by AAO. • Negotiation commenced with potential European and US partners on additional Design Phase and Construction Phase contributions. • PILOT project presented at Second ARENA Conference in Berlin, September 2007. Science, technology and logistical presentations by PILOT team. • Quarterly report to AAL.
2007-08 Q2 (Oct07-Dec07)	<ul style="list-style-type: none"> • Sub-contracts let for PILOT design work packages. • Open meeting of Australian astronomical community to discuss instrumentation requirements. • Quarterly report to AAL.
2007-08 Q3 (Jan08-Mar08)	<ul style="list-style-type: none"> • Mid-project review convened. Outcomes will include a report identifying the remaining risks and a strategy to buy down these risks during the remaining period of the Design Phase. • Quarterly report to AAL.
2007-08 Q4 (Apr08-Jun08)	<ul style="list-style-type: none"> • Design Review of PILOT project convened. Outcomes will be: <ul style="list-style-type: none"> ○ A final report that includes a detailed costing for the construction and whole-of-life operation for the 2.4 metre PILOT telescope. These costings will be justified with supporting documentation from potential vendors, and are expected to be accurate to within 10% ○ Identification of any remaining risks; and an approved risk mitigation strategy. ○ Identification of potential construction contractors and a spend profile for the Construction Phase. • Quarterly report to AAL. Report will include identification of international partners, their degree of commitment, and readiness to enter into formal agreements for the Construction Phase. • Detailed report on the site characteristics at Dome C, with particular attention to atmospheric seeing and turbulence, together with a detailed science case for PILOT.