

Supplementary Agreement with the United Kingdom of Great Britain concerning the Anglo-Australian Optical Telescope

Introduction

- 4.1 The *Supplementary Agreement between Australia and the United Kingdom of Great Britain (UK)*¹ concerning the *Anglo-Australian Optical Telescope*² (the Supplementary Agreement) will amend the existing Agreement³ (the Agreement) to provide for the:
- UK's commitment to the Anglo-Australian Telescope (AAT) to continue until Australia obtains sole ownership on 1 July 2010⁴
 - termination of the Agreement and Supplementary Agreement on 1 July 2010.⁵

1 The United Kingdom of Great Britain and Northern Ireland.

2 The full title of the proposed treaty action is the *Supplementary Agreement between the Commonwealth of Australia and the Government of the United Kingdom of Great Britain and Northern Ireland concerning the Anglo-Australian Optical Telescope, at Siding Spring, New South Wales, Australia*. National Interest Analysis (NIA), para. 1.

3 The existing Agreement is titled *The Agreement between the Government of the Commonwealth of Australia and the Government of the United Kingdom of Great Britain and Northern Ireland to provide for the establishment and operation of a large optical telescope [1971], ATS 2, as amended by an Exchange of Notes [1986] ATS 4*. NIA, para. 2.

4 NIA, paras 4 and 8.

5 Supplementary Agreement Article 6 (1).

Background

- 4.2 The Anglo-Australian Telescope Board (AATB) operates as the Anglo-Australian Observatory (AAO) and is an independent bi-national authority funded by both Australia and the UK. The AATB is established by the *Anglo-Australian Telescope Agreement Act 1970* to manage and operate the AAT and the UK Schmidt Telescope (UKST).⁶ Both the AAT and the UKST are located at Siding Spring, New South Wales (NSW).⁷ The Siding Spring Observatory (SSO) where the AAT is situated is owned by the Australian National University (ANU) and managed by the ANU's Research School of Astronomy and Astrophysics (RSAA). The RSAA and the AAO have a long history of collaboration on scientific, technical and Siding Spring site issues.⁸
- 4.3 Collaboration with the UK on the AAT has been a key element in Australia's globally competitive performance in astronomy.⁹ The AATB highlighted in its submission that:
- The AAO enjoys a worldwide reputation for providing outstanding observing facilities to astronomers, for the high quality of its research, and for its design and construction of innovative telescope instrumentation. Based on the numbers of published research papers, the AAT is one of the most productive telescopes in the world. The high level of citations to these papers testifies to the impact of this research.¹⁰
- 4.4 In 2001, however, the UK advised Australia that it had other astronomy priorities and so intended to end its involvement with the AAT.¹¹ The Committee was informed that the UK would be directing some of its astronomy assigned funding towards facilities such as the European Southern Observatory and Gemini Observatories both of which operate next generation eight-metre optical telescopes.¹²
- 4.5 Instead of terminating the Agreement with Australia, the UK agreed to amend the Agreement to continue the UK's commitment to the
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6 Anglo-Australian Telescope Board, *Submission 3*, p. 1; Department of Education, Science and Training, *Submission 9*, p. 1.

7 Anglo-Australian Telescope Board, *Submission 3*, p. 1.

8 ANU Research School of Astronomy and Astrophysics, *Submission 7*, p. 1.

9 NIA, para. 10.

10 Anglo-Australian Telescope Board, *Submission 3*, p. 1.

11 NIA, para. 7.

12 Dr Evan Arthur, *Transcript of Evidence*, 5 September 2005, p. 2.

AAT, but at a reduced level¹³ until the termination of both agreements. The new termination and the AAT handover arrangements will ensure long term access for Australian astronomers to a valuable scientific instrument¹⁴ in the lead up to Australia's acquisition of the AAT.

Features of the Supplementary Agreement

4.6 The Supplementary Agreement will allow:

- for the transfer of the AAT to sole Australian ownership on 1 July 2010
- the UK to withdraw from its joint ownership arrangement of the AAT with Australia on 1 July 2010 and reduce its direct funding commitment to the AAT from 2006¹⁵
- Australia to maintain a higher level of financial contribution to the AAT, if it chooses¹⁶
- The AATB to develop and access other sources of funding. These include external earnings from instrument development and UK competitive grants. However, access to certain competitive grants is conditional on the Supplementary Agreement's entry into force¹⁷
- revision of time sharing arrangements for the use of the AAO.¹⁸ Commensurate with Australia's expected higher financial contribution Australian astronomers will gain more observation time¹⁹
- Australia additional time to develop its long term policy for the AAO, while it continues to benefit from collaboration with the UK.²⁰

13 NIA, para. 4.

14 NIA, para. 6.

15 NIA, para. 8.

16 NIA, para. 5.

17 NIA, paras 5 and 9.

18 NIA, para. 11.

19 NIA, para. 5.

20 NIA, para. 10.

- 4.7 The potential consequences of the Supplementary Agreement not entering into force include:
- Australia having to match its future contributions to the reduced UK contribution from 1 July 2006, as the UK has indicated that it will not maintain the current level of funding beyond 2005-06
 - the AAT and associated facilities may not pass to Australian ownership and control as there would be no agreement in place establishing procedures for an official hand over
 - Australia's science and technology relationship with the UK may be adversely affected in the area of future collaboration in astronomy.²¹

Future direction of the Anglo-Australian Observatory

- 4.8 The Committee was informed that the AATB and the Department of Education, Science and Training (DEST) are reviewing the AAO. The review is intended to provide the Australian Government with options for the AAO's direction up to and beyond termination of the Supplementary Agreement in 2010. The Australian astronomical community's vision for the future role of the AAO is included in 'New Horizons: A Decadal Plan for Australian Astronomy 2006-2015'.²²
- 4.9 One of the main goals under the plan is to maximise the benefit to Australia of astronomical education and research. In this respect, the AAO is expected to develop into Australia's national observatory for optical and infrared astronomy, supporting the AAT and Australia's other national optical/infrared telescope facilities.²³
- 4.10 The AATB supports the Supplementary Agreement and made the following comment in relation to the future of the AAO:

The AATB strongly supports the amendment to the AAT Agreement by way of the Supplementary Agreement. The latter provides a mechanism to allow both partners to achieve their goals, including an orderly withdrawal by the UK

21 NIA, para. 13.

22 AATB, *Submission 3*, p. 2.

23 AATB, *Submission 3*, p. 2.

Government, and sufficient time for the Australian Government to plan for the future of the AAO.²⁴

Implementation

- 4.11 The *Anglo-Australian Telescope Agreement Act 1970* (Cth) (the Act) will be amended to include the Supplementary Agreement as a schedule to the Act, in addition to changes to the definition of agreement and the revised powers of the AATB.²⁵
- 4.12 The Act may also be amended or repealed in preparation for termination of the existing Agreement and transfer to sole Australian ownership of the AAT.²⁶

Consultation

- 4.13 DEST informed the Committee that it had consulted with State and Territory Governments and other primary stakeholders in relation to the Supplementary Agreement. This included consultation with the Australian and UK Governments, the AATB and the AAT Director and staff.
- 4.14 No issues were initially raised by the NSW, Western Australian or Northern Territory Governments. The NIA states that no concerns or significant issues were expressed by any other State or Territory Government.²⁷ As the AAT is situated in NSW, DEST provided a second opportunity for the NSW Government to comment on the Supplementary Agreement.
- 4.15 During DEST's consultations, the NSW and Australian Capital Territory (ACT) Governments raised two separate issues. The NSW Government raised the issue of future funding of the AAT which is addressed later in this chapter under the section titled *Funding*. The ACT Government was primarily concerned that DEST had not

24 AATB, *Submission 3*, p. 2.

25 NIA, para. 21.

26 NIA, para. 22.

27 NIA, Consultation Annex, paras 1- 3.

consulted with the RSAA in relation to the Supplementary Agreement.²⁸

- 4.16 The ACT Government also brought the issue to the Committee's attention during the course of the review of the Supplementary Agreement.
- 4.17 In his letter of 30 May 2003, the ACT Chief Minister responded to the Minister for Education, Science and Training's initial request for comment on the Supplementary Agreement with:

... I assume that you have consulted separately with the Australian National University (ANU) on this issue. As you would be aware, the ANU is under the jurisdiction of the Commonwealth. I am concerned, particularly in view of the destruction of the Mt Stromlo telescope during the recent ACT bushfires, that the amended agreement may have adverse implications for the ANU.²⁹

- 4.18 The ACT Government again canvassed the issue on DEST's consultation with RSAA in its submission to the Committee where it stated:

While it is pleasing that the RSAA supports the Agreement it is of great concern that it was not consulted during the Agreement negotiations. As managers of the site where the AAT is located, it has a considerable interest in proposed changes to the AAT. Further, the RSAA, as the largest astronomical group in the country, is also the chief Australian user of the AAT. Failing to consult the RSAA is a clear failure in the consultation process for this Agreement and a matter the Joint Standing Committee on Treaties should consider and report on.³⁰

- 4.19 In addition, the ACT Government contacted the RSAA for comment about the Supplementary Agreement and informed the Committee that the RSAA was supportive of the proposed treaty action:

During ACT Government consultation with the RSAA it became clear that the RSAA were unaware of the proposed Agreement.

28 NIA, Consultation Annex, ACT Government reply.

29 NIA, Consultation Annex, ACT Government Reply.

30 ACT Government, *Submission 4*, p. 2.

... after considering the Agreement, the RSAA indicated that it was happy with the thrust of the agreement and urged its immediate implementation.³¹

- 4.20 At its public hearing the Committee was informed by Dr Arthur of DEST that discussions about the Supplementary Agreement had occurred with ANU:

Certainly there have been discussions with the Australian National University and, indeed, with the Australian astronomy community generally. In fact, the Australian astronomy community, generally, of which a major component is provided by the ANU, has been engaged in a large-scale review of astronomy in Australia and is about to publish the final version of what they call their decadal review of astronomy in Australia. So the future of the AAT has been carefully considered with the Australian astronomy community in general and particularly, therefore, with the ANU.³²

- 4.21 The Department of Education, Science and Training in its submission to the Committee expanded further on this issue and stated:

... the ANU and the RSAA have been fully aware of the Supplementary Agreement, through its links to the Anglo-Australian Telescope Board (AATB), from the commencement of negotiations until their recent conclusion.

The Committee may wish to note that the initial Commonwealth negotiator on the treaty was Professor Lawrence Cram, the then DEST representative on the AATB. Professor Cram is now Deputy Vice-Chancellor (Research) at the Australian National University. From the commencement of negotiations in 2002 until July 2004, Professor KC Freeman of the RSAA was a member of the AATB. Shortly after Professor Freeman's appointment to the Board lapsed, Dr Brian Schmidt, also of the RSAA, was appointed to the Board (in December 2004). In addition I am advised by Dr Matthew Colless, Director of the Anglo-Australian Observatory, that he has provided regular briefings on the Supplementary Agreement to his counterpart at the RSAA,

31 ACT Government, *Submission 4*, p. 1.

32 Dr Evan Arthur, *Transcript of Evidence*, 5 September 2005, p. 2.

Professor Penny Sackett, since he assumed his post in early 2004.³³

4.22 In view of the comments made by Dr Arthur at the public hearing and the submission received from the ACT Government, the RSAA was invited to make a submission to the Committee.

4.23 In relation to the issue highlighted by the ACT Government, that is, of DEST's lack of consultation with ANU on the Supplementary Agreement, Professor Penny Sackett of the RSAA stated:

Although as a member of the Australian astronomical community I have been aware of the existence and basic intent of the agreement, to my knowledge this is the first time the ANU has been approached to make a submission ...³⁴

4.24 Professor Penny Sackett also reiterated the RSAA's support for the Supplementary Agreement:

As the largest astronomical research group in the country, RSAA is the chief Australian user of the AAT, and is impressed with the level of user service that the AAO provides, and its innovation in renewing the telescope to best scientific advantage. As the two premier optical astronomical instrumentation groups in Australia, the RSAA and the AAO have frequent occasions to collaborate technically. Finally, as the "landlords" for the SSO site, RSAA has amicable and fruitful staff relations with AAT staff. Indeed, given that our own ANU telescopes are now solely sited at SSO, we face and address many of our common challenges together. It is with this background that I thoroughly endorse the thrust of the Supplementary Agreement for the AAT, and urge its immediate implementation. It is of vital importance to the Australian astronomical community that the AAO begin this transition step toward a fully-Australian entity.³⁵

33 Department of Education, Science and Training, *Submission 9*, pp. 1-2.

34 ANU Research School of Astronomy and Astrophysics, *Submission 7*, p. 1.

35 ANU Research School of Astronomy and Astrophysics, *Submission 7*, p. 1.

Funding

- 4.25 The current level of funding provided to the AATB is A\$4.112 million indexed annually, which is expected to continue. This is considerably higher than the obligatory payment of A\$500 000 required under Article 11(2) of the existing Agreement as amended by Article 5 of the Supplementary Agreement.³⁶
- 4.26 The UK's funding to the AATB will decrease by 50 percent in 2006-07 to around A\$2 million with a further 50 percent decrease in 2007-08 to around A\$1 million. UK funding would remain stable thereafter until termination of the Agreement in 2010. Some additional funding may be provided through competitive grants.³⁷
- 4.27 Dr Evan Arthur of DEST informed the Committee of the likely success rate for winning competitive grants:
- Competitive grants, as their name suggests, are always awarded on a competitive basis and therefore cannot be guaranteed. However, given that the telescope ... has a very high success rate in terms of its publications and the citations of those publications and has a very high reputation amongst the astronomical community, one would assume that its prospects of securing grants are good.³⁸
- 4.28 In its submission to the Committee, the RSAA was concerned about the impact of reduced AAO funding during the period covered by the Supplementary Agreement. Professor Penny Sackett of the RSAA recommended a review of funding for the AAO:
- The declining budget for the AAO in the period 2006-2010 could have deleterious implications for the ability of this model national facility to maintain its excellent service to its user base, while exploring new opportunities for optical-infrared astronomy for the Australian community. A separate review of this matter would be timely.³⁹

36 NIA, para. 23.

37 NIA, para. 24.

38 Dr Evan Arthur, *Transcript of Evidence*, 5 September 2005, p. 5.

39 ANU Research School of Astronomy and Astrophysics, *Submission 7*, p. 1.

- 4.29 The AATB echoed RSAA's concern about the impact of reduced future funding of the AAO, but stated:

The gradual withdrawal of the UK funding does provide the AATB with some challenges. However, the AATB is confident that it can ensure the continued scientific excellence of the AAO.⁴⁰

- 4.30 During DEST's consultations, the NSW Government also expressed concern about the possible impact of reduced UK funding on Local and State economies and research in NSW. The NSW Government's response suggested that the Commonwealth should commit to ease any shortfall in funding.⁴¹

- 4.31 These concerns were addressed by the Minister for Education, Science and Training, in his correspondence to the NSW Government:

The revised Agreement is designed to put the AAO on a sound financial footing during the transition period. By permitting non-symmetrical contributions it allows the Australian Government to maintain its current level of direct funding. The revised Agreement provides the AAO with greater flexibility to develop and access other sources of funding such as external earnings from instrument development and UK competitive grants. ... the AAO is using the last few years of full bilateral funding to comprehensively upgrade the Anglo-Australian Telescope to ensure that it can continue to support world-class astronomy. The Government maintains a close and productive relationship with the Anglo-Australian Telescope Board. I will be working closely with the Board over the coming years to ensure the continuing success of the AAO.⁴²

- 4.32 The Committee also received evidence that if a future government chose not to fund the AAT beyond 1 July 2010, then Australia would retain sole responsibility for funding and managing the decommissioning of the facility including the payment of staff entitlements. This would pose a financial risk of A\$3 million in redundancy payments which could however, be offset by the AATB's asset base which has an estimated value of A\$48 million.⁴³

40 AATB, *Submission 3*, p. 2.

41 NIA, Consultation Annex, NSW Reply in October 2004.

42 NIA, Consultation Annex, Response from Minister Nelson MP to the NSW reply.

43 NIA, para. 14.

Signing of the supplementary agreement

- 4.33 DEST informed the Committee that the Supplementary Agreement had not been signed prior to its tabling in Parliament and subsequent referral to the Committee. The Supplementary Agreement is expected to be signed in October 2005.⁴⁴
- 4.34 The Committee notes that while its terms of reference would not have precluded it from inquiring into the treaty, signature of the treaty indicates the Australian Government's formal intention on behalf of Australia to enter into a treaty.

Entry into force and withdrawal

- 4.35 The Supplementary Agreement will enter into force when the Contracting Parties exchange diplomatic notes stating that all domestic procedures for entry into force have been met. This is expected to occur in the first half of 2006.⁴⁵
- 4.36 Pursuant to Article 7, the Contracting Parties may extend, amend or supplement the Supplementary Agreement.⁴⁶

Conclusion and recommendation

- 4.37 The Committee acknowledges the evidence provided to it and, on balance, is satisfied that DEST undertook an adequate level of consultation with relevant treaty stakeholders and organisations within the Australian astronomy community.
- 4.38 The Committee further acknowledges that the Supplementary Agreement will provide Australia with a significant opportunity to attain sole ownership of the AAT, while continuing in the short term to benefit through collaboration in astronomy research with the UK.

44 Dr Evan Arthur, *Transcript of Evidence*, 5 September 2005, p. 5.

45 NIA, para. 3.

46 NIA, para. 27.

- 4.39 The Committee welcomes the Supplementary Agreement and believes that the cost involved in maintaining the AAT may be offset by the great potential for scientific benefit to Australia of increased access to and control of the AAO and associated scientific instruments and facilities.

Recommendation 3

The Committee supports the *Supplementary Agreement between the Government of the Commonwealth of Australia and the Government of the United Kingdom of Great Britain and Northern Ireland concerning the Anglo-Australian Optical Telescope, at Siding Spring, New South Wales, Australia* and recommends that binding treaty action be taken.

Mrs Margaret May MP

Acting Committee Chair