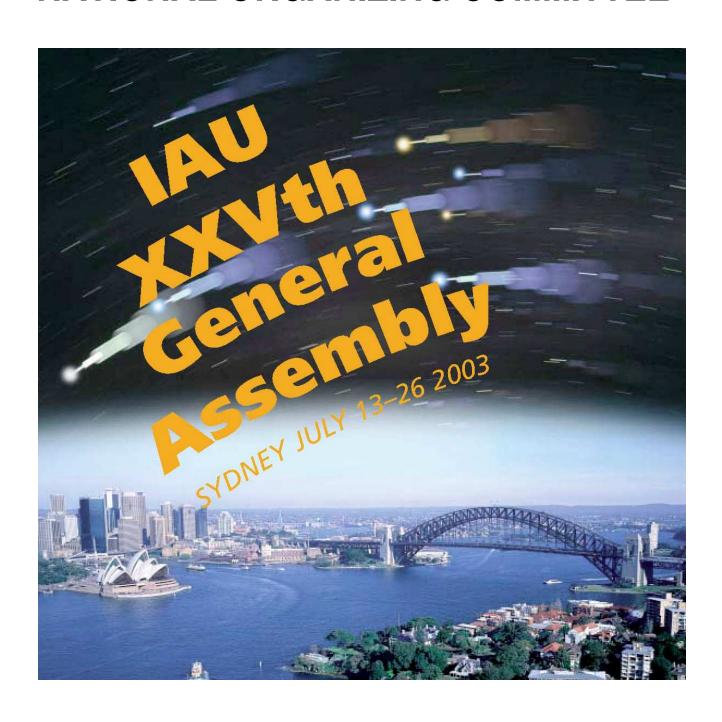


# REPORT OF THE CHAIRMEN NATIONAL ORGANIZING COMMITTEE



# **International Astronomical Union**

# XXVth GENERAL ASSEMBLY

July 13-26 2003 SYDNEY AUSTRALIA

# REPORT OF THE CHAIRMEN OF THE NATIONAL ORGANIZING COMMITTEE

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# **Executive Summary**

The 25<sup>th</sup> General Assembly of the International Astronomical Union (GA25) was a very successful event held in Sydney, Australia during a two-week period (July 12-26 2003). It was hosted by the National Committee for Astronomy of the Australian Academy of Science in conjunction with the Astronomical Society of Australia (ASA). The venue was the Sydney Convention and Exhibition Centre (SCEC) at Darling Harbour. The GA was formally opened by the Federal Minister for Education, Science and Training at the Sydney Opera House on July 15.

Approximately 1,800 delegates from around 60 countries participated in the GA. Although the attendance was threatened by SARS and international tensions including the war in Iraq and the terrorist bombing in Bali, the attendance figures were extremely impressive and exceeded expectations. A one-month extension of the GA Early-Registration deadline proved effective in increasing the number of registrations

The GA comprised 6 Symposia, 21 Joint Discussions, 4 Special Sessions, numerous meetings of working groups, IAU Divisions and Commissions, and over 2,000 oral and poster presentations. An associated program ('Festival of Astronomy') provided about 50 public events ranging from Science-in-the-Pub, and guided night-viewing tours to public talks by eminent astronomers and an astronomical exhibition ('Astro Expo') open to the public. The exhibition contained 46 individual displays; the operational costs were offset by a grant from the Federal Government. With additional Government and industry support, a successful one-day meeting ('Industry Day') was held to enable industry leaders to identify opportunities and challenges, in particular related to astronomy; 125 representatives from 75 organizations formally registered for the meeting. Additional more restricted functions included a Civic Reception hosted by Sydney's Lord Mayor. In place of a conventional conference dinner and separate cultural event, a 'Party' was organized with different themes providing cultural overtones. The GA attendees were provided internet access by means of 40 PCs, 48 laptop connections, and wireless access within the Convention Centre. The IAU Executive had approved the establishment of an IAU Working Group on the Status of Women in Astronomy a few days before the GA, and a successful luncheon was held during the Assembly. Childcare facilities were provided as a convenience for attendees with children of age 12 years and less. A wide range of tours were available, ranging from daily visits to various locations around Sydney to pre- and post-GA tours to more distant parts of Australia.

A GA website was set up containing all background information considered of importance to potential GA participants – visa regulations, GA deadlines, meeting venues, general accommodation, associated events, tours etc. To it were added online forms for GA registration, booking accommodation, and for submitting abstracts for presentations, and also down-loadable forms for applying for IAIU Travel Grants, booking tours, and even booking exhibition space.

The Australian organization of the meeting was set up by a National Organizing Committee in conjunction with a professional conference organizer, ICMS Australasia. The Committee held thirty-six meetings from April 1998 onwards; more than 40 different people were involved during the period. Additional people participated in various sub-committees. A Student-Volunteer Program enabled

Australia's astronomy students to participate in the GA, providing valuable organizing and operating assistance in return for a reduced registration fee; 94 students took part in the Program.

To begin organizing the GA, a consortium of Australian astronomical institutions provided an initial 'float' of almost AUD100,000. The Astronomical Society of Australia added AUD55,000 to assist with raising sponsorship. By the end of 2002, the on-going expenses threatened to exceed the available funds. The crisis was averted by a short-term loan from ATNF and delayed payments to ICMS until adequate funds were available from incoming registrations. Early attempts to obtain sponsorships for the GA were unsuccessful, and during the final 12 months before the meeting a commercial company, DVA Navion, was employed to seek GA sponsorship. Requests for financial support from the Federal Government were extremely successful, with grants totaling almost AUD200,000 from the Department of Education, Science and Training, and the Department of Industry, Tourism and Resources.

To cover the cost of operating the GA, registration fees higher than for previous GAs were necessary. They were set at AUD880 (AUD1,100 after May 31) for IAU members and Invited Participants, and AUD230 for Registered Guests. Reduced registrations fees of AUD220 were approved in some cases – teachers without IAU membership attending a special education session, engineers from Australian astronomical institutes attending a meeting on Future Large-Scale Facilities, retired IAU members giving presentations at sessions on the History of Australian Radio Astronomy, and Student Volunteers. In addition, the fees were waived for local lighting engineers attending sessions on Controlling Light Pollution, people who only attended to give History presentations, and accredited media people. Even with the increased general fees, balancing of the budget was achieved only through the last-minute Government support. Unfortunately, the final accounting has been delayed more than a year by a virus attack on the ICMS computer network during the meeting. The total income was AUD2.2 million and the expenditure AUD2.1 million; this resulted in a final surplus of AUD65,000.

The GA publicity began at the 2000 Manchester GA, and continued through many outlets: GA website, IAU Information Bulletins, distribution of posters, articles in various publications, and presentations and handouts at several astronomical meetings. A month prior to the GA a concentrated media campaign was launched. Although the efforts were extensive, a later review indicated that the campaign should have begun earlier than six weeks prior to the GA, the advance advertising of major public talks was inadequate, and the publicity budget of AUD20,000 was far too small.

**Timeline of Events up to end of GA25** See Annex 1.

# 1. The Early Years:

# 1.1 History of Winning the Bid

The first consideration of Australia making a bid for obtaining a second IAU General Assembly in Australia was in the early 1990s. Thus, the gestation time for such a major congress can be of the order of a decade. In 1994, following an invitation from Don Mathewson on behalf of the National Committee for Astronomy (NCA), several members of the Executive Committee of the IAU visited Australia and were taken on visits to the major astronomical facilities of the country.

In addition, the Executive Committee visitors were given the opportunity to examine the Sydney Convention and Exhibition Centre (SCEC), which even at that time was being considered as the most likely venue for holding an Assembly. It should be noted that at that time, Convention Centre South was still under construction. A dinner with the NCA was also held in a location with a wonderful view of night-time Sydney. At the time it was being proposed that Australia should bid for the General Assembly of 2000 to be held in Sydney just prior to the Olympic Games, and the members of the Executive Committee were amenable to that suggestion.

In the months following this visit, however, it became clear that the logistics of holding the General Assembly in an Olympic Games year would pose significant logistical problems which might be hard to overcome. It was decided therefore that a bid should be submitted for the 2003 General Assembly. This was strongly advocated by Jeremy Mould, who had recently been appointed as Director of Mount Stromlo and Siding Spring Observatories. A bid was developed with major input from Sandra Harrison, then at the Anglo Australian Observatory, and submitted to the IAU in 1995.

The decision to hold the 2003 IAU General assembly (GA25) in Sydney was announced at the IAU General Assembly in Kyoto in August 1997.

# 1.2 Establishment and Membership of the National Organizing Committee In late 1997 Jeremy Mould called for expressions of interest from Australian astronomers who wished to be part of the Local Organizing Committee (which later became the National Organizing Committee (NOC)) for GA25. He then asked John Norris to convene the first meeting of this group, and this took place on April 20, 1998.

It is interesting to note that of the ten original members of the group, only four remained active within the Committee by the time of GA25; of these two had major roles in the organization. In fact, over 40 different people (including some 14 staff members of the selected Professional Conference Organizer, ICMS Australasia) took part in the some of the thirty-six NOC Meetings over the intervening period. A list of all people who were involved as members of the NOC is given in Annex 2. A number of other people became involved in the sub-committees of the NOC.

# 1.2.1 Appointment of the NOC Chair

Appointment of a Chair of the NOC was a problem for the Committee, because everyone involved was also working in senior positions within their institutions, and had little time to spare. A number of different people held the post, commencing with

John Norris (Meetings 1-4) and followed by Lawrence Cram (5-7) and Raymond Haynes (8-16). Harry Hyland (17-36) took over as Chair in late 2000, working from James Cook University in North Queensland. He was joined as Co-Chair in April 2002 (Meeting 22) by John Whiteoak, who took on much of the daily liaison in Sydney, and the two Co-Chairs led the NOC to the successful completion of the GA.

# 1.3 Formal Hosts and Organization of a Funding 'Float' from Institutions1.3.1 Official Hosts

The original formal host of GA25 was the NCA of the Australian Academy of Science, the formal Adhering Body to the IAU; it had issued the invitation to the IAU. For financial reasons, it was later joined as co-host by the Astronomical Society of Australia (ASA).

# 1.3.2 Financial Responsibility

Among the early issues that the NOC had to deal with was determining which organization would be financially responsible for the General Assembly. Although the NCA is the Adhering Body to the IAU, advice received from the Australian Academy of Science was that it could not have financially responsibility. It was extremely important that there be a financial responsible body which could enter into contracts with the conference organizers and conference venue management. The ASA eventually agreed to take on this role. Formal ASA representation on the NOC was provided by the President of the ASA (Dick Manchester) and one of its secretaries (John O'Byrne) who monitored all financial aspects of the meeting. The NOC then became a Committee of both the NCA and the ASA.

# 1.3.3 Funding "Float"

In response to a need for sufficient funds to commence organizing the GA in earnest, a consortium of contributing astronomical institutions was formed, together with the ASA, to provide a financial float. This initial float was of some AUD98,000, with the expectation that if the GA were financially successful the float money would be returned to the consortium members. The ASA later added a further AUD55,000 to assist with sponsorship fundraising.

# 1.4 Selection of the Venue for the General Assembly

# 1.4.1 Confirmation of the Proposed Venue

The submission to the IAU to gain the GA in Sydney was predicated on the use of the Sydney Convention and Exhibition Centre (SCEC) in Darling Harbour. During their 1994 Australian visit, members of the IAU Executive Committee visited the site and were impressed with the size and scope of the facilities and the possibilities offered by the venue. Notwithstanding this, because of the large cost of using SCEC the NOC decided to make enquiries about other possible venues. The expectation was that the entire Convention Centre would be required to adequately house the GA and all the various meetings, and early estimates suggested that this could cost about AUD600,000 for rent alone. However, in the second half of 1998 the NOC decided that there was no alternative venue capable of housing the GA, and that steps should be taken to book the venue as soon as possible.

# **1.4.2** Selection of Meeting Dates

The dates considered for the GA were between July 6 and 26, 2003 in order to coincide with the University mid-year break and to allow use of the Sydney University Colleges for low-cost accommodation. This was about a month earlier than normally selected for IAU General Assemblies. Following agreement to the timing by the IAU Executive Committee, the Convention Centre was booked for the period July 13-26, 2003. This required the Convention Centre management to prevail upon organizers of a meeting of Soroptimists to shift their planned conference by one week.

In retrospect, had it been possible, one or two rooms should have been booked earlier to enable the IAU Secretariat to get organized at the Centre before the influx of GA participants.

# 1.5 Selection of Professional Conference Organizer and Contract Development1.5.1 The Selection Process

One of the most important issues to be decided by the NOC was the appointment of a Professional Conference Organizer (PCO) to manage the Assembly. From the commencement of the process, the NOC had been in contact with SCEC through Tour Hosts, a well know Sydney PCO. Tour Hosts provided the NOC with a lot of information during the early days, even to the extent of suggesting a fee per participant and devising a very preliminary draft budget. Nevertheless, the NOC decided that it needed to follow due process, and on September 18, 1998 called for tenders for the provision of PCO services.

Some five well-known PCOs in Australia responded to the tender request. The number was reduced to two short-listed candidates, Tour Hosts and ICMS Australasia. The NOC spent its 7<sup>th</sup> meeting on December 9, 1998 visiting each of the two candidate companies, interviewing them and getting a feel for their capabilities. Each of the NOC members who attended these visits provided comments to the then Chair (Lawrence Cram), who collated them and commented on various issues.

Follow-up conversations were held with referees provided by the PCOs, and all the comments were put together for finalizing the choice at the June 1, 1999 meeting.

#### 1.5.2 The Final Choice

In addition to the referees reports, and comments by NOC members, proposed draft contracts from the two candidates were available for discussion at the June NOC meeting. Following discussion a comprehensive vote was taken, based on the referees' answers to a set of nine questions about each candidate. The NOC members individually scored out of 10 the answers to each question. The questions included a rating of performance, culture, financial sponsorship, finances, electronic communications, media activity, reporting, and referee's recommendation. The results clearly favoured ICMS Australasia, which was chosen as the PCO and would be treated as the 'preferred supplier' in negotiating the final contract.

# **1.5.3** Development of the Contract

Work on the development of the contract with ICMS was undertaken initially by the NOC led by Raymond Haynes, Lawrence Cram, Harry Hyland and Bill Zealey. This

commenced in about July 1999. The latter stages of negotiation were handled primarily by the formal representatives of the ASA who were also NOC members (Dick Manchester and John O'Byrne), since by this time the ASA had undertaken the financial responsibility of the General Assembly. There were many issues to be considered and the contract was not ready to be signed until around March 2000. CSIRO business expertise had been extremely valuable in preparing the contract.

It cannot be emphasized too much how important the contract negotiations were to the ultimate success of the Assembly. Because of the assiduous nature of the efforts and the clear statements in the contract about which obligations were to be fulfilled by ICMS, the NOC (and the ASA) were well protected from misunderstandings that could have cost the ASA considerable sums of money. On a later occasion, when ICMS claimed it was not responsible for certain requirements, referral back to the contract clearly indicated where the responsibility lay. The contract laid out time frames for payment which were probably too stringent in the early stages before income was available from registration fees. However, ICMS was very accommodating in allowing some of the early payments to be delayed to maintain the financial viability of the organizing.

# 1.6 Pre-Booking of Venues

# 1.6.1 Sydney Convention and Exhibition Centre

When SCEC was tentatively booked for the period quoted earlier, SCEC management requested that it be informed within a fairly short period of time just how much space would be required for the GA. This was an impossible task at this early stage of the project because the number of Symposia, Joint Discussions, Special Sessions, Working Party meetings, and Commission and Division meetings was unlikely to be known until mid-2002 (three years ahead).

Under these circumstances, and based on the likelihood that the number of events would be greater than for the previous Manchester GA, the only sensible move was to book all SCEC's conference facilities, and to refine the situation closer to the time when the GA requirements and other possible requirements for other conferences would be known. However, at that stage, no SCEC exhibition hall was booked. It turned out that the GA did require almost all the conference facilities, although a few of the rooms were rather too large for the individual meetings.

#### 1.6.2 Sydney Opera House

In June 1999, the possibility of using the Concert Hall of the Sydney Opera House for the Opening Ceremony and Welcome Reception was raised, and the first approaches were made to the Opera House management. It was suggested that a booking be made within two months, followed by confirmation within a further six months. However, the NOC was later informed that, because the schedule for the use of the Hall by the Sydney Symphony Orchestra (the Opera House's main tenant) was determined no earlier than fifteen months ahead of time, no firm bookings could be made until early 2002.

A date of Wednesday July 16 was tentatively booked for the Opening Ceremony. However, the IAU Executive decided to have the event on the afternoon of Tuesday July 15. This turned out to be impossible because rehearsals of the Sydney

Symphony Orchestra were scheduled for that day. It was finally agreed that the Welcome Reception would commence at 5 pm in the Opera House foyers, and the Opening Ceremony would start at 6.15 pm, with a scheduled completion time of 8.30 pm.

# 1.7 Early General Assembly Publicity

# 1.7.1 Development of the Logo

One of the first issues relating to publicity for the GA was the development of a logo. A competition was held in early 2000, and at its 14<sup>th</sup> meeting on May 11, 2000, the NOC reviewed four designs and accepted a design by Paul Titse as the basis for the logo. This occurred in time for ICMS to use it in publicity during the Manchester GA. Unfortunately, the design included a stylized image of the Sydney Opera House, and in October 2002 the Sydney Opera House Trust ruled that its use was an infringement of the Sydney Opera House Trademark. Following negotiations, the Trust agreed to allow its continued use for a licence fee payment of AUD7,500 and ICMS offered to pay half this fee.

# 1.7.2 Publicity at the 24<sup>th</sup> GA in Manchester

The NOC recognized early on that good publicity at the 24<sup>th</sup> General Assembly in Manchester was important to whet the appetites of astronomers to come to Australia. A display about the Sydney GA, which included large posters and a continuous video presentation emphasizing the Australian scientific scene and the tourism potential of the country, was set up near the registration area and 'pigeon holes' for the participants. Raymond Haynes organized a roster of attending Australian astronomers to staff the display. Identifying T-Shirts were provided to those who undertook this task. The area was well attended, and the display was well received.

About 500 attendees signed expression-of-interest forms, or registered through an early version of the web-site available on a PC next to the display. This enabled ICMS to contact these people later with updates on the progress of the Sydney GA.

The lessons learned from the Manchester meeting were extremely valuable to the Australian NOC in framing its approach to organizing such a complex event. Attending NOC members met with the IAU Executive Committee during a session where the Co-Chairs of the Manchester Local Organizing Committee presented their interim report. Ron Ekers, as next President of the IAU was also present.

At the Closing Ceremony, David Malin gave a presentation enhanced by images (including some of his own astronomical images) of Australia, Sydney and Australian astronomy.

To gain experience of a GA, several ICMS staff members also attended the event.

# 1.8 Organizing and Pre-Booking Accommodation

# 1.8.1 Hotel and College Accommodation

Because of the potentially large number expected to attend the GA, and the popularity of Sydney as a tourist destination, it was important that Hotel and College

accommodation be booked well in advance. Therefore, the first bookings were made in mid-2001.

A total of 580 rooms were booked in four resident Colleges of Sydney University - Women's College, Wesley College, Sancta Sophia College and St Andrew's College. The booking was initially coordinated by Gordon Robertson (Sydney University) but later interaction with the colleges was taken over by ICMS. The College accommodation was located some four and a half kilometres from the Convention Centre, and it was decided that buses should be provided to transport participants to and from the venue.

At the same time, ICMS made tentative bookings at six hotels, with three- to five-star ratings, in and around Darling Harbour. A total of 480 rooms was booked for the major two weeks of the Assembly, with additional rooms booked for dates outside this period. Thus, there were at this stage some 1,060 rooms available for the participants. Unfortunately, the accommodation caused later problems. Initially, the NOC had noted that more less-expensive rooms were needed. This, in conjunction with a loss of almost 200 available college rooms during the last six months and a larger-than-predicted accommodation demand, meant that the number of hotel rooms had to be increased commensurately.

#### 1.8.2 Other Accommodation

Many local Australian astronomers chose to live at home or with friends and relatives in Sydney rather than book at one of the chosen venues. Also, some serviced apartment facilities that had not been offered were utilized by those familiar with the Sydney scene.

A facility to billet overseas and Australian interstate participants was set up in late 2002, as mentioned later in this report.

# 1.9 Development of Initial Budget and Viability Analysis

# 1.9.1 Early Budgets

It was realized from the beginning that the financial success of the General Assembly would be highly dependent upon the actual number of participants. This in turn would depend on excellent publicity and an exciting program of scientific meetings.

A very preliminary budget based upon 1,500 paying participants was constructed by ICMS and tabled at the 11<sup>th</sup> Meeting of the NOC on October 1, 1999. It was based upon early and late registration fees of AUD850 and AUD950 respectively, and did not include GST. A comparison of this with the final budget shows that the cost of almost every item was significantly underestimated. It was not until November 2002 that a realistic budget was produced which showed that even with increased fees of AUD880 and AUD1,100 the 'break-even' attendance would be about 1,600.

#### 1.9.2 Budget Issues

Some of the major issues in relation to the budget were as follows:

• The cost of the two venues – SCEC and the Sydney Opera House. Both of these venues were very costly, although the SCEC final charges were considerably less

- than had initially been anticipated. These were fixed costs that had to be covered no matter how many people attended the GA.
- The total cost of presentation facilities for the large number of meeting rooms and the large GA period was large - SCEC insisted on providing its own facilities for its meeting rooms. The NOC attempted to minimize the cost by generally limiting the use of the expensive image projection facilities to the larger auditoriums. Fortunately, final cost discussions between ICMS and SCEC resulted in some savings.
- The Opening Ceremony and Welcome Reception (other than the venue charge) were also costly. The cost of food and drink for the Reception increased significantly during the GA organizing period, and even then some attendees complained that the provided food was inadequate.
- The cost of morning and afternoon teas was one item that scaled with the number of participants, and taken over the length of the GA was quite high. Efforts to limit this cost resulted in some complaints of an inadequate biscuit supply.
- The cost of the GA newspaper and the three publications supplied to attendees (Programme Book, Abstract Book and Participant List) was higher than initially estimated because of the larger number of participants, the greater number of major scientific meetings, and the very large final number of poster papers.
- It was not possible to find a commercial sponsor for the 'Internet Café'. Fortunately, an adequate facility became quite affordable late in the GA organizing when it was developed in conjunction with both network traffic and a wireless facility sponsored by AARNeT and GrangeNet.
- The Registration fee for participants was probably the major issue encountered by the NOC during the organization of the GA. Because of sponsorship concerns, the relatively high cost of the whole event, and the imposition of a 10% Goods and Services Tax (GST), the NOC was compelled to set the fees at levels (AUD880 and AUD1,100 for early and late registration) higher than for previous GAs, and this caused concern within the IAU Executive Committee and some members of the astronomical community.

# 1.10 Visits of the General Secretary of the IAU in 2001 and 20021.10.1 The 2001 Visit

The General Secretary of the IAU, Hans Rickman, made two visits to Sydney to check on arrangements that were being made by the NOC. The first of these visits occurred in the period April 18-25, 2001. A meeting of the NOC was convened on the April 19 to enable discussions between Committee members and the General Secretary.

The NOC had previously suggested that the General Secretary's itinerary should also include visits to Darling Harbour, the Sydney Opera House, the offices of ICMS, the residential Colleges at Sydney University and some other accommodation venues, as well as possible meetings with the NCA (if available), Australian IAU Office bearers, and NOC sub-committees. This demanding schedule was not completely fulfilled, but the main goals were achieved. Accompanied by several NOC members he visited the four University colleges, several of the hotels in the list prepared by ICMS, and SCEC. The first firm accommodation bookings resulted from these visits

Some of the numerous issues flagged during discussion with the NOC were:

- The nature and process of grants to students.
- The possibility of day registration.
- Policing of registration
- Media registration and accreditation processes.
- The appropriateness of possible sponsorship.
- Badges and ID cards.
- Symposia and GA dinners.
- Opening Ceremony and the Plenary sessions of the GA.

#### 1.10.2 The 2002 Visit

This visit took place in the period June 26-30, 2002. The General Secretary first met with specific individuals having major responsibilities such as media, newspaper, Opening Ceremony, room scheduling etc., prior to attending an NOC meeting on the June 27.

The visit included an inspection of the Convention Centre, together NOC and ICMS representatives. This enabled the scheduling of rooms for various activities to be finetuned. However, this was not to be the final tuning, because the use and selection of the Centre rooms were later reviewed with an aim to minimize the total hiring cost.

A similar visit was made to the Sydney Opera House to establish the venues for the pre-Opening Ceremony reception(s), and to find out requirements for security, ticketing, timing etc.

#### 1.11 The Sub-Committee Structure of the NOC

During 2000 it became clear that certain people, or groups of people, with particular responsibilities were needed. Thus, at its 16<sup>th</sup> meeting on November 7, 2000, the NOC established the following Sub-Committees and corresponding responsibilities:

# • Executive Sub-Committee

This group of a half-dozen NOC and ICMS representatives (including the two Chairs) dealt executively with critical matters arising between NOC meetings, reporting back to the NOC. It met only sporadically up to the last quarter of 2002, when more frequent meetings became necessary.

# • Finance Sub-Committee

This small group dealt with day to day financial issues, and was crucial in ensuring that all financial issues were properly covered.

#### • Hospitality, Tours and Social Sub-Committee

This group was responsible for liaising with ICMS and General Travel in establishing the program of tours, overseeing accommodation matters, initial planning for the Opening Ceremony and GA 'Dinner', etc.

# Website Development and Registration Sub-Committee

Working in conjunction with ICMS, this group was responsible for developing and maintaining the GA website, and ensuring that on-line submission procedures such as on-line registration devised by ICMS and the submission of presentation Abstracts worked properly. It was important that the site be kept up-to-date with links to other important websites for the various meetings etc, and with information about scientific program, schedule of events, submission of Abstracts

and so on. Although the initial responsibilities also involved establishing the Internet Café, this was later devolved to a smaller group, as discussed later.

# • Marketing, Sponsorship Media and Newspaper Sub-Committee This Sub-Committee had an enormous brief, to look after all the marketing and promotion of the GA, as well as establishing a media presence at the GA, including the running of the GA newspaper. It was soon decided that to do this, in addition to fund raising through sponsorship, was not viable, and a separate Sponsorship Sub-Committee was established.

# • Sponsorship Sub-Committee

This Sub-Committee was set up to obtain sponsorship funding of at least AUD350,000. Chaired by several astronomers, the group was totally unsuccessful, and in desperation a professional fund-raising company was employed in September 2003. One of the big lessons that the NOC learnt was that active fundraising should have begun **prior** to the winning of the bid to host the GA. Only by doing this and seeking sponsorship from governments and major sponsors might it be possible to generate adequate major funding. Governments in particular are eager to attract major events to their city, state or country, and will often promise support in order for the event to be won. However, once the event has been garnered, then the value of sponsorship to the government is lessened.

# • Scientific Programs Sub-Committee

The main initial responsibility of this group was to ensure that excellent scientific symposia relevant to the nation's interests were proposed to the Executive Committee of the IAU. Following subsequent decisions by the Executive Committee, the responsibility changed to one of liaison with the Scientific Organizing Committees of the major scientific meetings. This included issues concerning abstract submission and selection, technology requirements for each meeting, scheduling etc. The Sub-Committee subsequently spawned a group responsible for organizing the GA Student Volunteer program.

# • Associated Events Sub-Committee

This very active group developed an excellent range of public events associated with the GA.

In addition to the responsibilities undertaken by the Sub-Committees, a number of individual members of the NOC took on specific tasks. For example, Bruce Peterson, at Mount Stromlo, took on sole responsibility of updating the website, and indeed was extremely valuable in ensuring that the website was minimally disrupted when fire destroyed the Mt Stromlo Observatory (home of major GA website pages). The NOC Co-Chairs provided much of the text included in the IAU Information Bulletins IB91, IB92 and IB93, and the GA Programme Book, and coordinated with ICMS on the overall texts for these publications. Harry Hyland took on responsibility for the room scheduling at the Convention Centre, in consultation with the IAU General Secretary, and maintaining the official schedule. Helen Sim undertook much of the promotional responsibility for the whole of the GA, and effectively ran the Marketing, Media, and Newspaper Sub-Committee by herself.

# 2. The Final Fifteen Months

# 2.1 Meetings of NOC, NOC Executive, APES, Tours etc

During the last 15 months before the GA, the planning intensified in meetings of several groups. The NOC meetings were generally held at the CSIRO Radiophysics Laboratory in Marsfield NSW. At the 22<sup>nd</sup> meeting on April 19, 2002, John Whiteoak, an ATNF Honorary Fellow, was added to the NOC as Co-Chair to help boost the organizing effort. David Ellyard, a NSW Government employee with a long-standing interest in promoting astronomy, was appointed as NOC Executive Officer and Chairman of the Sponsorship and Exhibition Sub-Committee. Thereafter, meetings were held at intervals of 4-6 weeks, with the 36<sup>th</sup> meeting at the Convention Centre on July 12, 2003, the first day of GA registration at the Centre.

To facilitate decision-making during the last few months before the GA, fortnightly meetings of the NOC Executive Committee were initiated in December 2002. During this period the Committee consisted of Ron Ekers, Bryan Holliday (ICMS Director), Harry Hyland, Dick Manchester, Rachel Webster and John Whiteoak, with Sue Little (ATNF) taking Minutes.

Regular meetings were also held by some of the NOC sub-committees, in particular the Associated Public Events Subcommittee (APES) chaired by Nick Lomb. The Hospitality Accommodation and Tours Subcommittee chaired by Raymond Haynes held several meetings until the GA program of tours was finalized towards the end of 2002.

# 2.2 Communicating with the World

# 2.2.1 General Assembly Website

A GA website (www.astronomy2003.com) was originally set up by ICMS in 2000 via Smartype, and the associated pages were hosted and maintained either by ICMS or by Bruce Peterson at ANU. It contained all the background information considered of importance to potential GA participants – visa regulations, GA deadlines, meetings, meeting rooms, accommodation, associated events, tours, health warnings, etc. Important additions during the second half of 2002 included the scientific meetings, on-line forms for registering for the GA, booking accommodation and submitting presentations abstracts, and down-loadable forms for applying for IAU Travel Grants, booking tours, and even booking exhibition space. Special emphasis was put on providing links to websites associated with the various GA meetings, activities of Divisions and Commissions, and other information such as the floor plans of the Convention Centre. As the number of registrations increased, a list of registered people was added. This was delayed because there was some concern amongst NOC members that some participants might not wish to have their names publicly listed. To overcome this, the listed participants were given the option of having their names removed from the displayed list.

Overall, the management of the website was probably adequate, but certainly not spectacular. In the end, because of all the extra information added during the GA organization, navigation around the website became a little unwieldy and some participants experienced problems locating specific information. In retrospect, addition of a search facility would have been useful.

The website provided the most effective means for the NOC to distribute information to potential GA participants. Unfortunately, the NOC did not have ready access to the email list of IAU members, and on the few occasions when it needed to contact the members, the process was cumbersome in that the IAU Secretariat had to be involved. It is recommended that in the organization of future GAs, the NOC should be given an up-to-date copy of the IAU email address list.

#### 2.2.2 Communicating with the SOCs

As 2002 progressed it became obvious that, despite the information being added to the website, there was a growing communication gap between the GA organizers and the SOCs of the various meetings. As a result, Rachel Webster initiated a scheme in which a Liaison Communication, containing relevant up-to-date information about the GA organization, would be regularly sent to the SOCs of Symposia, Joint Discussions (JDs) and Special Sessions (SPSs). The first Communication was sent out in August. However, production of further updates became delayed, and Raymond Haynes took over the management in December, thereafter providing up-dates at monthly or shorter intervals. As the GA approached, some of the Communications were also distributed to additional groups such as the Working Groups with planned meetings, and Commission and Division Presidents. The Liaison Communications became an important means of distributing information regarding deadlines, provision of AV facilities, SARS etc. On occasion the email distribution lists were also used to quickly circulate critical information such as changes in deadline dates.

#### 2.2.3 GA Satchel

On registration at the Convention Centre, delegates were provided with a GA satchel containing, amongst other things, three publications critical for participation: the Programme Book of the 25<sup>th</sup> General Assembly; the Abstract Book, and Participant List. To save effort and expense the cover designs chosen for the first and the last were those used for IAU Information Bulletin 91 (Anglo-Australian Telescope dome) and the sponsorship brochures produced by DVA-Navion (Parkes Radiotelescope). For the Abstract Book an evening view of the ANU 2.3-m telescope and dome was chosen for the cover. These booklets are discussed later. Other inclusions in the satchel were a CD from the Astronomical Society of Australia, a flyer containing details of the 'associated events', a New Scientist magazine and a discount card from the Sydney Harbour Foreshore Authority.

# 2.3 General Assembly Program

# 2.3.1 Opening Ceremony

Considerable effort was put into the planning of the Opening. Initial discussions had involved using the Sydney Symphony Orchestra (SSO) in association with a special performance of 'Star Chants', a composition to which astronomers David Malin and Fred Watson had contributed. However, in the absence of significant sponsorship for the Opening Ceremony, this would have been too expensive. The Opera House booking was confirmed in July 2002, and a December 20 meeting of NOC and ICMS representatives decided not to use the SSO, but to use the AUD65,000 budgeted amount together with AUD10,000 sponsorship by the Peter Gruber Foundation to set up the three-part program plus the Foundation Cosmology Award prizegiving that was finally adopted. Annex 3 contains the Opening Ceremony program.

The formal GA Opening on July 15, 2003 was held in the Concert Hall of the Sydney Opera House with an audience of more than 2,000 people. It was preceded by a Welcome Reception in the Opera House foyers, and followed by the First Session of the IAU General Assembly. The Opening Ceremony began with a traditional aboriginal welcome, and included a special presentation using David Malin's astronomical images in conjunction with music composed by Sandy Evans, and an address plus an organ performance (accompanied by the Voice Australia Choir) by Australia's Chief Scientist, Robin Batterham. Australia's Prime Minister Hon John Howard was invited to perform the actual 'opening', but was overseas at the time. Instead, he featured in a welcoming video presentation. The formal opening speech was delivered by the Hon Brendan Nelson, Federal Minister for Education, Science and Training.

#### 2.3.2 Closing Ceremony

The GA Programme Book contains the Agenda for the Second Session of the General Assembly and Assembly closing. In the planning, considerable effort had been put into providing an effective means of scrolling through the names of members deceased since the previous GA.

As expected, Ron Ekers was named as the IAU President for the period 2003-2006. The President-Elect is Catherine Cesarsky. Other highlights announced: more than 800 new IAU members; a large deficit of SF296,000 during the last triennium; Brazil chosen for the 2006 GA (August 14-25). A new voting procedure adopted during the meeting is sure to provoke future comment. Whereas individual delegates could suggest changes (to resolutions etc) from the floor, only the national representatives were allowed to vote on issues. This differs significantly from previous meetings where some issues were voted on by all members in attendance.

# 2.3.3 Final Selection of the Scientific Program and Room Allocations

The selection of 6 Symposia, 21 JDs, 4 SPSs and 3 Invited Discourses (IDs) for the scientific program was finalized at a meeting of the IAU Executive Committee and Divisions Presidents in May 2002. The extensive variety in the scientific program was clearly of immense importance in attracting a large number of participants to the GA. The selection committee and those responsible for making proposals for meetings are to be congratulated on contributing to the final program.

Although allocations of rooms in the Convention Centre for the scientific events, IAU Secretariat, NOC, ICMS, Press and media, and registration had been discussed by the General Secretary and Harry Hyland from November 2001 onwards, it was not until the full scientific program had been finalized that more concrete allocations could be made. Early drafts were based on only 14 JDs as for the Manchester GA, and the increase to 21 impacted on both the program organization and number of SCEC rooms required.

As mentioned earlier, a significant review of SCEC room allocations was undertaken when the IAU General Secretary toured the Convention Centre in June 2002. The first schedule of main events and a preliminary scientific program (for Symposia, JDs and SPSs) was published in IB91 (the special issue for GA 25), and added to the GA website. Further fine tuning of the room allocations was carried out based on individual room costs. Also, an attempt was made to clear the weekend during the

GA period of official GA events. Additional meetings were added to the program during 2003 – Working Group meetings, Division and Commission meetings, and other events such as a Women-in-Astronomy Meeting. These also added to the difficulty of fitting events into appropriate times. Changes and additions to the room allocations were made up to and during the General Assembly.

In hindsight, in the room allocations for the major symposia, there were not enough rooms of size large enough to seat between 500 and 750 people. Three of the largest available rooms were used, and these were significantly larger than ideal, with the participants being rather too dispersed to provide good audience discussion.

The final program and room allocations were fully described in the GA Programme Book. The text for this was set up by the IAU Secretariat, based on an April 1 deadline for the inclusion of information about meetings. The text file was then sent to ICMS for printing. It was unfortunate that no changes could be made after the deadline, because several of the meetings were still being finalized at the beginning of April and the final details were not available. At one stage ICMS was proposing to add an annex of updates, but because of other priorities this didn't happen. However, meeting organizers were still able to publicize changes or updates during the GA in the daily IAU newspaper ('The Magellanic Times') or on bulletin boards near the reception area.

As recorded on the Registration Forms, the numbers of participants interested in the individual symposia are as follows:

S216 (Maps of the Cosmos)	743
S217 (Recycling Intergalactic and Interstellar Matter)	635
S218 (Young Neutron Stars and their Environments)	449
S219 (Stars as Suns: Activity, Evolution and Planets))	699
S220 (Dark Matter in Galaxies) S221 (Star Formation at High Angular Resolution)	769 669
ID1 (Gamma-Ray Bursts)	1021
ID2 (The Formation of our Galaxy) ID3 (From Molecules to Planets: A Milky Way Dreaming)	1135 1038

#### 2.3.4 General Assembly 'Banquet'

As a change from the conventional conference 'dinner', ICMS suggested a 'Party' with cultural overtones; it had organized such events in the past and they were very successful. The event was held in the Convention Centre Banquet Hall, with the room divided into three themes – a beach scene with surfing machine, an outback Australia scene with animals and shearing exhibitions, and a Hawkers' market with an Asian flavour. Appropriate food was available in each area. Cartoonists, masseurs, karaoke, dance floor and band (traditional with GAs) were also provided.

Around 600 people attended the Banquet on July 24. Because of criticism of the noise at the corresponding event at the Manchester GA, ICMS organizers were very mindful of the need to take noise into account and had provided a 'quiet area' in the Hall. Although the feedback from most attendees was very positive, there were nevertheless some complaints about the noise level at one stage. In retrospect, a quieter and larger low-noise area would have been more satisfactory for those people who wanted to talk extensively. SCEC management later suggested that that it would have been possible to set up the room opposite the Banquet Hall for that purpose.

The high cost (AUD130) of tickets for the Banquet (compared with the cost for a simple conference dinner) drew criticism from a number of participants at the GA.

#### 2.3.5 Exhibition

A joint 'professional' and 'public' Astro Expo, using Exhibition Hall 5 adjacent to the Convention Centre, was held during the GA. It is discussed elsewhere in this report. Although much of the Expo was organized at the last moment, overall it appears to have been quite successful.

# 2.3.6 Student-Volunteer Program

The NOC considered it very important for Australia's astronomy students to have what could turn out to be a unique opportunity to attend an IAU GA in Australia. Accordingly, a Student-Volunteer Program was established which enabled students to assist in the operation of the GA, thereby also providing valuable assistance to the organizers, and also to participate in the scientific program. A valuable spin-off was that it provided a forum in which students from all over Australia could get to know each other.

The Program was initially set up in September 2002 by Jon Everett, who began to advertise for students and in association with ICMS to draw up a set of appropriate jobs. The NOC agreed that in exchange for a discounted registration fee of AUD220 each student should provide the equivalent of five days' assistance. Coordination was set up with Rachel Webster, who had taken over the task of allocating some key GA jobs to members of the Australian astronomy community. At the beginning of June, UNSW PhD student Tamara Davis took over the organization of the students. This move turned out to be very successful; much of the great success of the Program is due to her excellent advance planning and management.

A total of 94 students from several Australian universities joined the Program: Australia National University (30), UNSW (20), University of Melbourne (15), University of Sydney (15). The remainder were from University of Tasmania, University of Queensland, University of Wollongong, Swinburne University, Macquarie University and Monash University One student was from overseas.

The students were involved in a multitude of tasks. Prior to the start of the GA, these included assisting Raymond Haynes with the welcoming at Sydney International Airport (with Raymond Haynes), packing satchel bags, labeling pigeon holes, preparing poster boards, and assisting Shaun Amy in wiring up the Convention Centre for internet access. During the GA, the jobs included directing delegates, poster mounting, acting as room monitors, assisting the IAU Secretariat, and assisting in the

media and AV rooms. Students also assisted at public talks and other associated events.

Identified by their bright red vests, the students were described by Convention Centre staff as the best volunteers that had worked at the Centre. Unfortunately, labeling the students as 'Volunteers' rather than 'Student-Volunteers' was a mistake; because of this, some volunteers felt that their interaction with the delegates was impaired because the delegates didn't treat them as astronomy students.

Annex 4 contains a report on the Student-Volunteer program by Tamara Davis.

# 2.3.7 Women in Astronomy Meeting

Following an approach and offer of 'seed' money from the US National Committee for the IAU in September 2002, a meeting for Women in Astronomy (WAM) was added to the program, and Anne Green (University of Sydney) agreed to take on the organization. Initially, it had been hoped that the event could be sponsored, but subsequent attempts to find sponsors were unsuccessful.

Organized by Anne and Sarah Maddison (Swinburne University), a successful luncheon was held on July 21 with a booked-out attendance of 180 IAU delegates. Keynote speaker was Andrea Duprea (CfA). The main goal was to review the status of women in astronomy and to plan strategies and actions for improvement. A proposal to establish an IAU Working Group on the Status of Women in Astronomy, with Anne Green as Chairperson, had been approved by the IAU Executive a few days before the meeting. The issues discussed included career paths and recruitment, role models and mentors, child raising and child-care. A summary of the meeting will be reported in a future IAU Information Bulletin. Written feedback from the attendees will be transformed into specific action items to be included in the summary.

The organizers have requested that the enthusiastic support of the IAU Executive and NOC be acknowledged.

#### 2.3.8 Childcare

Although not planned initially, by the start of 2003 the NOC was committed to providing childcare facilities for GA participants and advertised this on the website and in other communications. Organizing this was somewhat complex because an estimate of the number of children and their ages was required before final planning could be undertaken. An extensive investigation by ICMS of Day-Care options near Darling Harbour revealed that these groups no longer took 'casual' bookings because of high public liability insurance costs. Accordingly, ICMS devised a different solution, consisting of two parts. A 'creche' was set up in Exhibition Hall 5 for children with ages less than 9 years. The older group (9-12 years old) was looked after by a group of UTS student-childcare teachers who organized various activities around Sydney.

A total of 40 children 12 years old and less accompanied GA participants to Sydney. Of this, 23 were involved in daytime Childcare.

It is believed that the overall level of the provided child-care facilities went a step further than those offered at most astronomy meetings overseas. However, although much positive feedback was received from parents, the overall project proved costly, both financially and in terms of time spent in its organization.

# 2.3.9 Tour Programs

The Hotel Accommodation and Tours Sub-Committee chaired by Raymond Haynes planned a wide range of tours, and these were set up by General Travel Australia. They consisted of 6 pre- and post-GA tours, planned to cater for both the adventurous and more sedate travelers, and a series of day tours. A description of the tours was placed on the GA website in October 2002 and a summary was included in the GA Programme Book. Tour booking forms were provided in IB92 and on the GA website. Where relevant, tours could also be booked during the GA. Some of the longer tours had to be cancelled or changed because of lack of participants - a Tasmania Tour and Kimberly Highlights Tour were cancelled, and a Red Centre Tour was diverted to a larger commercial tour. Annex 5 lists the tours and associated numbers of participants, provided by General Travel.

The most popular short tours were the Ku-Ring-Gai National Park bushwalk, trips to Canberra and the Hunter Valley, and trips to see koalas and kangaroos. There was positive feedback from the Canberra day-trippers because they were able to visit Mt Stromlo and see the devastating effects of the bush fires. Astronomy tour guides included in some of the tours were appreciated by the participants. In all, General Travel did a good job in organizing the tours, and provided booking facilities throughout the GA. However, some of the offered tours were relatively expensive, and were beyond the budget of some GA attendees.

The initial set of longer tours also included a tour of the major Observatories in NSW. When it looked like being cancelled through lack of bookings, Graeme White set up a cheaper tour for the weekend during the GA (July 18 and 19). Nineteen participants, two guides and a driver took the tour, visiting the Parkes Observatory, Siding Spring Observatory, and Paul Wild Observatory. Graeme later commented that many astronomers may have already visited some of the Observatories and this could have contributed to the general lack of interest in the tour.

#### 2.3.10 Additional Functions

Additional functions involving limited groups of participants were added to the program, resulting in inevitable schedule overlaps. These included an IAU Executive Dinner, a dinner for the NOC hosted by the IAU Executive, the Gruber Foundation Dinner, a Civic Reception hosted by Sydney's Lord Mayor, a Reception hosted by the US National Committee for the IAU, a Cocktail Party hosted by the Dutch Consul General, a wine-tasting evening organized by Brian Schmidt (ANU), and an astrobiology meeting at Macquarie University.

# 2.3.11 Associated Events

The Associated Public Events Sub-Committee (APES) chaired by Nick Lomb set up a program of events associated with, but not directly part of, the GA. The events were included in an Australian Festival of Astronomy and listed on the GA website. Annex 6 shows a flyer produced to advertise the Festival. The events included various activities at the Sydney Observatory and Powerhouse Museum, public talks on

astronomy subjects by leading Australian and international astronomers, a night of sky viewing in North Sydney, public access to the GA exhibition (Astro Expo), and related meetings such as Science in the Pub, a Schools Day organized by UNSW, and the 'opening' of a memorial at Dover Heights to commemorate the pioneering radio astronomy carried out at that site.

Annex 7 contains a report by the Sub-Committee, prepared by Nick Lomb. It notes that, with one exception, all public events were very successful, taking place as planned and enthusiastically received by the audiences. As pointed out in Section 2.4.3, although the Astro Expo was overall successful, the number of non-GA visitors during the four-day public access was disappointing. APES lays the blame on inadequate advertising; the exhibition was not an item that the media considered significant enough to promote. An adequate advertising budget should have been allocated to fund its promotion.

One of the more ambitious associated events was "Astronomy on the Go", organized by Michael Burton with financial support from UNSW and run by the university's science students. Annex 8 contains Michael's report. The major part of the event consisted of three tours around regional New South Wales and one of the Sydney metropolitan area, with the students giving presentations at secondary schools during the daytime, and 'Starry Starry Night' presentations in the evenings.

# 2.4 Organization of SCEC Facilities for the GA Program

#### 2.4.1 Final Convention Centre Room Allocations and Cost

The Convention Centre room allocations have been already discussed in Section 2.3.3. The allocations were finalized by the end of September 2002 and ICMS sent the plan to the Centre management for costing. The final negotiated cost was AUD517,000, i.e. AUD470,000 without GST. This was below the original budget estimate, even though the use of Exhibition Hall 5 had been added to the room selection and the final number of JDs (21) was higher than the number (14) assumed initially. The contract for the hire of the rooms was signed at the end of January 2003. Annex 9 shows the program of meetings and room allocations.

# 2.4.2 Provision of Audio-Visual Facilities

Once the room plan had been finally established it was possible to organize the audiovisual (AV) facilities for the rooms. It was recognized that most scientific presentations would rely on 'Powerpoint' or other data projection programs requiring such facilities. However, because the provision of facilities in all rooms would have been prohibitively expensive, the NOC attempted to limit their use to the more major scientific meetings. Accordingly, a general policy was established in which full facilities would be provided for all Symposia, Joint Discussions, Special Sessions and Invited Discourses. However, for the smaller meetings, for example Commission and Division meetings, only transparency projection would be generally available, although provision of additional facilities would be considered on request. The Convention Centre provided a Speaker Preparation Room to enable presentations to be checked out in advance and modified if necessary.

This policy was widely advertised – in IB92 and Liaison Communications sent to all SOCs, including those of Working Groups, and also to Commission/Division

Presidents. It was placed on a special web page set up by Baerbel Koribalski (ATNF) and linked to the GA website. Most of the requests by June 20 for AV facilities at Working Group and special Commission/Division meetings were granted. SCEC management would not permit the convenors of the smaller meetings to provide their own data projection facilities, although private laptops could be hooked into rooms equipped for data projection. Despite NOC fears that the AV costs would blow out, the final negotiations by ICMS resulted in a satisfactory cost of AUD217,000 (excluding GST), not disastrously higher than the early budget estimate (AUD200,000) based on a lower number of meetings.

It is recommended that for future GA meetings, full AV facilities should be factored into the initial planning and budgeting.

It should be noted that the AV facilities and presentation support, in conjunction with SCEC and ICMS support in the Speaker Preparation Room, were outstanding. Many speakers praised the high quality of the facilities and the absence of presentation disruptions.

# 2.4.3 Organization of the Exhibition Hall and Astro Expo

Exhibition Organization. Although the NOC had initially agreed to some form of exhibition associated with the GA and containing up to about 30 displays, the plans were not consolidated until November 2002. Prior to this date there had been considerable debate as to whether to have both a 'professional' and 'public' exhibition and whether the latter should be separate from the GA. In August it was agreed that the two should be combined in an Astro Expo, and that it should be held in SCEC's Exhibition Hall 5 rather than the Conference Centre's smaller Banquet Hall.

Graeme White spearheaded the first planning, estimating the space requirements of the combined exhibition and producing a list of over 400 possible exhibitors. In November ICMS took over the management and sales for the exhibition (as per original contract between ICMS and ASA), and during December ICMS's John Gorton organized a final brochure and list of companies to be initially targeted. By February the brochures had been distributed, and nine exhibitors confirmed. Institutes that had contributed initial 'seed' money to organize the GA were encouraged to provide displays by an NOC decision that their contributions could be used as payment. By the start of the GA, 46 individual displays by 38 groups had been organized; an Exhibitor Listing was included in the GA satchels and is contained in Annex 10. The exhibition included an 'Australia Pavilion', sponsored by the Federal Government (see later report). Unfortunately, ICMS's exhibition manager (John Gorton) was absent during the GA and also much of the month leading up to the GA, and some of the final momentum may have been affected when other ICMS staff had to take over the role.

One problem of the combined exhibition was that although the professional component was expected to extend over almost all the entire GA period, the public component could realistically extend over little more than a weekend. Accordingly, it was arranged for displays to be installed on Monday July 14, the exhibition to open the following day and extend until Thursday July 24, and public access to take place in the four-day period from Friday July 18 to Monday July 21.

Only 764 of the general public attended the Expo during the public-access periods and this was somewhat disappointing. Apart from the advertising problem mentioned earlier, it was not possible to install advertising signs outside the Exhibition Hall, and the signs at the entrance of the Hall were inside the building itself and may not have been sufficiently visible to attract passersby.

Communal use of Exhibition Hall. Exhibition Hall 5 was planned as a communal area, containing not only the exhibition in the front area, but also poster presentations, internet café, coffee and communal area for delegates, 150-seat theatrette, café and childcare centre. Considered large enough to cope with initial estimates of GA participants and posters, last-minute changes were needed to provide for the final larger numbers (see Section 2.7.2).

<u>Informal meeting place for Registered Guests.</u> Jay Ekers established an informal meeting place for registered guests in the Hall. Posted on a wall were suggested things to do and names of local contacts who could offer advice. Brochures, ferry timetables etc were provided and, individually or in small groups, the Guests visited Taronga Zoo, Art Gallery, Botanic Gardens, museums and nearby beaches. A popular aid for weary feet was a collection of used paperbacks!

# 2.4.4 Internet Café and Internet Access

Initially, it had been planned to have a sponsored Internet Café containing 60 monitors and 20-30 laptop connection points, located in the Exhibition Hall. In November 2002, ICMS provided a quote of AUD120,000, considerably higher than the budgeted amount (AUD50,000), following it a few months later with a lower quote of about AUD60,000 for a more modest system. Unfortunately, attempts to have the Internet Café sponsored by computer companies such as IBM and Dell failed. At the beginning of May 2003, when the situation had become critical, Rachel Webster offered a solution based on buying a set of Dell computers, hiring them out to the GA, then selling them after the meeting. Following NOC discussion of the logistics, on May 30 the plan evolved into a proposal using computers hired from a Sydney supplier. It was based on an estimated cost of about AUD20,000 for the supply of 40 PCs equipped with Windows XP Professional, internet links, 48 laptop connections, 3 printers, high-bandwidth link, and appropriate furniture. This formed the basis of the final facility. Additional funding was required for leasing the SCEC network, purchasing fibre patches and copper cabling, and payment to CSIRO-TIP for the use of Shaun Amy's time in connecting up the system. Thanks to Shaun's negotiations, link providers AARNeT and GrangeNet agreed to absorb the traffic costs and they became official sponsors to the GA.

The Internet Café performed very successfully. Although there was occasionally a queue for the PCs, it was rarely more than ten people long. As feedback, one of the astronomers commented favorably on the provision of PC stations without seats, a practice which ICMS had employed for other conferences to speed up the user turnover.

Shaun Amy also set up a wireless internet facility, setting up several access areas around the Convention Centre. No wireless security was provided, enabling laptops to operate without firewall restrictions.

The NOC had some concern about the lack of Internet Café facilities on the first Monday and second Friday when the Exhibition Hall was not available. However, there were few complaints, probably because of the availability of both the wireless facility and a small Business Centre in the Convention Centre which provided internet access.

# 2.5 Sponsorships

# 2.5.1 Seeking Sponsors

In April 2002, only 15 months from the GA, the Sponsorship and Exhibition Subcommittee lacked a Chairman and had achieved little else aside from compiling lists of possible sponsors and drafting a sponsorship poster. This caused considerable concern, bearing in mind the AUD350,000 sponsorship estimate in the GA budget. To boost the sponsorship effort, the ASA contracted David Ellyard to chair the Subcommittee. In the following months David established a sponsorship strategy and produced an extensive master-list of potential sponsors. However, by August, although he had approached about 50 potential sponsors, none had been lined up and the progress was judged unsatisfactory. Accordingly, with support from the NCA and the NOC, the ASA decided to approach a professional fundraiser. Despite some reservations because of the limited time available, on September 9 the company DVA-Navion agreed to take on the fund-raising task for a period of six months for a charge of AUD5,000 per month plus 20% commission. Jenny Nicholls (University of Sydney) agreed to be the NOC contact for a few months.

As a strategy, DVA-Navion decided to target several potential large sponsors, including the Commonwealth and NSW Governments. The NOC had many anxious moments while appropriate submissions were being prepared and the company had preliminary discussions with Government officials. December requests to Connell Wagner and CSIRO Business Development and Commercialization provided the first successes, with sponsorships of AUD30,000 (AUD20,000 'in kind'), and AUD100,000 (AUD60,000 in kind) respectively. In addition, the Lord Mayor of Sydney agreed to provide an IAU Civic Reception. However, the request to the NSW Government for support was unsuccessful.

The submissions for Commonwealth Government grants took longer to organize (two were submitted in March 2003 and the third not until June 12), but fortunately, by the end of June all were approved. Two of the grants were from the Department of Education, Science and Training (DEST): an AUD50,000 Innovation Access (International Science and Technology) grant for conference support and a second AUD100,000 grant for international showcasing. The third was from the Department of Industry, Tourism and Resources (DITR), an AUD40,000 grant in support of an Industry Day event. Although the results were very welcome, the lateness of the decisions caused uncertainties in the state of the GA budget during the earlier months of 2003.

Attempts to obtain smaller sponsorships (e.g. for the Internet Café) by DVA-Navion and later by ICMS were unsuccessful except in supporting associated events (see later). Common feedback was that the requests should have been made at least a year earlier, thereby giving companies more time to fit sponsorship costs into advance budget estimates.

Aside from these efforts, as related earlier two other sponsors, GrangeNet and AARNeT, contributed to the provision of internet facilities.

#### 2.5.2 Australia Pavilion

Two of the Government grants had associated obligations. The DEST Showcasing Grant was provided to support the production of an Australia Pavilion at the exhibition, a set of ten displays presenting Australian science and technology to the international GA audience. Because Dick Manchester signed the DEST grant contracts only towards the end of June, very little time was available to organize the Australia Pavilion. In the end it was necessary to include some displays from the set intended for the general exhibition. The exhibitors are listed in Annex 10. The contract also required the appointment of a Production Manager, and ICMS agreed to take on this role.

The Australia Pavilion booths were differentiated from the others by differently coloured fascia boards. Some were scattered amongst the other booths because the exhibitors chose to be located where the traffic flow was better or where they would be near an affiliate. The Pavilion stands received extra information material and special posters to display as part of the group. In addition, they were involved in a special publicity promotion.

As part of the reporting requirements of the grant, Bryan Holliday of ICMS compiled an interim report based on a survey (by face-to-face or telephone interviews) of exhibitors involved in the Australia Pavilion. According to the survey, all exhibitors understood and valued the opportunity to participate in a 'Team Australia' approach as part of the Science, Engineering, Technology and Innovation Showcasing supported by the Federal Government. The overall recommendation was that the funding of such events should be made mandatory if Australian research centres and organizations are to increase their exposure and prominence in the international area. There was general agreement that the international showcasing of Australian technology occurred at an important time in the bid for Australia to become a partner in the proposed Square Kilometre Array and the Extremely Large Optical/ Infrared Telescope.

# 2.5.3 Industry Day

Approval of the AUD40,000 DITR grant was received on June 16. DITR's interest was in an event, an Industry Day, providing technology diffusion of international and home-grown technologies into specific Australian sectors. Fortunately, NOC discussions began early in 2003; Aaron Chippendale (ATNF) agreed to coordinate the event on behalf of the NOC, accepted the challenge with considerable enthusiasm. Two meetings were held with Connell Wagner early in April. In association with its AUD20,000 in-kind sponsorship offer, Connell Wagner agreed to be Industry Day Corporate Sponsor and to provide leadership and organizational support, with ICMS managing event logistics. During the following weeks, the Industry Day was organized as a one-day workshop to be held in the Exhibition Hall Theatrette on July 23. The aim was for industry leaders to identify opportunities and challenges, in particular related to the astronomy 'industry', for knowledge transfer to other industry sectors. Connell Wagner distributed invitations to attend the event to several hundred different Australian groups.

Annex 11 contains a report on the meeting by Aaron Chippendale; the proceedings can also be found on the web at <a href="www.atnf.csiro.au/iau-ga/industry">www.atnf.csiro.au/iau-ga/industry</a>. The event comprised presentations on Australia's excellence in astronomy, overviews of the investment and opportunities in astronomy and industry, and technology case studies by several companies. It provided an insight into optical telescope developments, the Square Kilometre Array Telescope, deep space communications, instrumentation and supercomputing. A total of 125 representatives from 75 organizations formally registered, and together with GA participants filled the 150-seat theatrette. 24 attendees completed a feedback questionnaire; 22 of these found the workshop either relevant or highly relevant. From what they had seen and heard, 20 considered that there were opportunities for their companies in the area of astronomy, and 23 wished to be kept informed about future astronomy projects and developments. Significant media interest resulted in an informative Australian Financial Review article.

It is worth noting that the initial interest in the grant was as a means of contributing to the GA sponsorship budget. However, the event turned out to be highly relevant to the GA; it involved GA participants, with several providing presentations, and demonstrated to the international attendance the strong relationship between Australian astronomy and industry.

# 2.5.4 Summary of Sponsorship Funds

Funds are in Australian dollars and do not include GST:

Extra ASA funding (Ellyard)	\$55,000
Direct costs to institutions	~\$20,000
CSIRO (cash)	\$40,000
(in kind by ATNF)	\$60,000
Connell Wagner (cash)	\$10,000
(in kind)	\$20,000
DEST: Conf. Support	\$50,000
Showcasing Australia	\$100,000
DITR: Industry Day	\$40,000
AARNeT/GrangeNet (traffic charges)	~\$20,000
Gruber Foundation (Opening)	\$10,000
Lord Mayor's Reception (in kind)	\$10,000
Associated Events:	
British Council	\$4,000
Donovan Trust (Ellyard)	\$7,500
UNSW	\$30,000
Sponsorship Commissions	>\$56,000
ESO contributed to support the IAU grants	<b>SF</b> 50,000
NAS support travel grants - US astronomers	<b>USD</b> 40,000

Sponsors were featured in signage throughout the GA, and at the Opening and Closing Ceremonies. Main sponsors were also acknowledged for their support in the Programme Book, Abstract Book and Delegate List.

In retrospect, a sponsorship focus, with sponsorship prospectus and identified prospects, should have been established at least two years earlier. This would have

given companies time to fit sponsorship costs into company budgets. In addition, it appears that a commitment for (untied) Government Sponsorship is probably easiest to obtain prior to the event being awarded to the host country, as an incentive to winning of the bid.

# 2.6 Registration of Participants

# 2.6.1 Registration Fee Level

Setting the registration fee has been discussed already in Section 1.9. IAU approval to hold the 25<sup>th</sup> GA in Sydney was based on the use of the Sydney Convention and Exhibition Centre for the scientific meetings, and the Sydney Opera House for the Opening and First GA Plenary Session. Because of the high hiring charges for both venues, the NOC found it necessary to charge registration fees significantly higher than for the previous GA in Manchester, and this caused considerable discussion in 2002. Agreement on the final levels did not occur until June 2002. For IAU members and Invited Participants the fees were AUD880 until April 30 and then AUD1100; for Registered Guests, the fee was AUD230. To further encourage people to register early, the names of participants who registered early went into a draw for a Sydney Harbour Bridge climb for two people. At the end of April, in view of the international unrest caused by the September 11 disaster followed by the Bali bombing, war in Iraq, and SARS, the NOC decided to extend the early registration period until May 31. It is interesting to note that persons who registered early saved an additional amount of up to 10% compared with those who paid late, because the value of the Australian dollar rose against most major currencies during 2003.

A general cancellation and refunds policy was first included in the preliminary announcement of the GA in IB91, distributed in August 2002, and was subsequently included on the GA website and in Liaison Communications sent to meeting organizers. It specified that in the event of cancellation a full refund less administration charge of AUD150 would be provided up to April 30, 2003 (later extended to May 31). Thereafter, until June 21 a 50% refund less administration charge would be given. Guest fees would be refunded in full. After June 21 there would be no refunds. In practice, any requests for full refund during the two latter periods were considered case by case.

Unfortunately, the increased registration costs, in conjunction with high airfare costs to Australia from America and Europe were considered excessive by some potential participants. This resulted in a complaint to the IAU from a group of Canadian astronomers in November 2002.

#### 2.6.2 Registration Form

In April 2000 the NOC had decided on 'on-line' registration using the GA website as the preferred means of registration and ICMS began to plan a website Registration Form. In July 2002 the NOC approved the Registration Form design; its completion had been delayed until the registration fees were set. It also included the booking of accommodation in recommended hotels and Sydney University colleges, booking for social functions, and the pre-ordering of Symposia proceedings published by ASP, and the IAU Transactions and Highlights Volume 13. This form was included in IB91 for use in early registration. Extra effort was required by ICMS to produce a robust website version. This was followed by considerable testing to provide a

version that could be satisfactorily accessed using the most common types of computer networks, and it was not until the beginning of November that a final version was placed on the website for general use. As a consequence of the testing problems, no further changes were made to the Form; subsequent qualifications were provided in a pre-Form page added to the website.

# 2.6.3 Special Registration Fees

As registration proceeded, the NOC began to receive enquiries concerning the possibility of reduced registration fees for specific circumstances. The IAU Executive had already ruled out the possibility of 'day' or single-meeting fees, but other cases were considered by the NOC:

- A reduced fee of AUD220 was approved to enable teachers without IAU membership to attend both SPS4 (Effective Teaching & Learning of Astronomy) and a special workshop on July 26 at the Powerhouse Museum.
- A similar fee was approved to enable up to two engineers per Australian astronomical institute to attend the day-long meeting of the Executive Committee Working Group on Future Large-Scale Facilities.
- A special deal was offered to Student-Volunteers a reduced registration fee of AUD220 in return to the equivalent of five days of assistance.
- Commission 41 had a different problem. It had organized a series of sessions on the History of Astronomy involving retired astronomers and engineers who would participate only in this event. The organizer requested reduced registration fees and the NOC Executive Committee agreed on an AUD220 fee for those retired presenters who would have to pay their own fees. Moreover, free registration was considered for those who attended the GA only to give a presentation at that specific meeting.
- For Commission 50's one-day Working Group on Controlling Light Pollution, the NOC agreed that local lighting engineers could attend the meeting free of charge.
- Free registration was provided for accredited media people.
- Groups who paid for displays in the exhibition were provided with at least two free registrations per display, depending on display size.

# 2.6.4 Invited Participants

In principle, participation in a GA is limited to IAU members and non-members invited to attend by specific people (e.g. National Adhering Organizations) authorized by the IAU. During early registration the NOC received reports that many IAU non-members were confused by the 'invited-participant' designation, and it was concerned that non-members would be put off from participating in the GA. Accordingly, a concerted effort was made to inform the astronomy community that obtaining an invitation to the GA was easy. The process was simplified further when Rachel Webster, as Chair of the Australian NCA (the Host and Adhering Organization), added a statement on the website pre-Registration page indicating that genuine astronomers who were non-members should merely check the 'invited participant' box on the Registration Form, and she would later provide them with invitations. She advertised this in a GA presentation at the Seattle AAS meeting in January 2003.

#### 2.6.5 Credit Card Problems

During the peak periods of registration, ICMS tended to lag behind in the processing of the incoming forms. One of the main reasons was that a number of credit card companies based overseas (mainly in USA) would not recognize registration

transactions associated with ICMS Australasia. Consequently, ICMS had to put extra effort into validating the charges, resulting in delays in the processing. It appears that under such circumstances, intending participants at future GAs should be asked to warn their credit card providers that they will be making overseas purchases.

# 2.6.6 Registration Badges

Badges worn by GA participants were colour-coded according to registration category:

IAU Member Navy Blue **Invited Participant** Green Registered Guest (including children) Yellow NOC & ICMS Staff Red Media/Press Orange Exhibitor Light Blue Gold Executive Committee & IAU Staff White Student-Volunteers **Special Category** Purple Visitors Pink

A 'Visitor' category was used for the sessions on History of Australian Radio Astronomy to enable the free attendance of several local people with special interests in the topics under discussion.

#### 2.6.7 IAU and other Travel Grants

More than 250 travel grants were awarded by the IAU. Application forms were included in IB91 and IB92, and a copy could also be downloaded from the GA website. Applications were required to be sent no later than February 15 2003 to Symposium SOCs, or to the IAU General Secretary for other meetings. The SOCs sent their recommendations to the IAU General Secretary, who then notified the applicants of the decisions. However, this represented only the first round of the process, because in the ensuing months, as some grants were rejected by prospective participants, new grants were awarded or current grants were increased.

The IAU sent ICMS the grant funds so that grantees could be paid when they registered at the Convention Centre. For some participants this may have been a problem if the grants were intended to cover some of the travel costs in addition to registration and up-front accommodation costs. ICMS had to distribute over 200 payments totaling over AUD200,000, a large amount of cash to organize in a relatively short space of time.

Symposium SOCs found unwieldy the process in which, although they were allocated specific funds to support the travel of participants at their meetings, both the final decision on allocations and notifying the applicants were carried out by the General Secretary. It has been commented that the process would be more streamlined if each SOC could be fully responsible for the grant allocations for its meeting. However, this could lead to liaison problems if a participant were to apply for support to more than one SOC.

ESO contributed SF50,000 to support the IAU grants. Independently, NASA contributed USD40,000 in travel grants for US astronomers. These grants would have

contributed significantly to the extent of participation in the GA, and the two institutions should be acknowledged for their welcome support.

#### 2.6.8 Visas

Visas were an important issue, because all travelers to Australia other than Australian and New Zealand citizens are required to hold valid visas when visiting Australia. Moreover, experience has shown that obtaining a visa can take considerable time, even up to 8 weeks. As a result, appropriate warnings were included on the GA website and in IAU Information Bulletins, and circulated in other GA documentation. The Registration Forms included a box to be checked if a letter of invitation was needed for visa purposes, and in the event of a checked box ICMS would email, mail or fax an appropriate letter to the sender. At first the scheme backfired, because the ICMS letter was too general and didn't include information such as the particulars of the person requesting the visa. In addition to this, some letters were simply not received by the requesting persons, and had to be resent. The situation became more critical for those participants who decided to travel to Sydney only when they were offered IAU travel grants a few weeks before the GA.

#### 2.6.9 Accommodation

<u>Hotels and university colleges</u>. The recommended accommodation was discussed earlier. Descriptions of the hotels, apartments and university colleges listed in the Registration Form were included on the GA website. The price per night of the hotels and apartments ranged from AUD120 to AUD385. As the number of registrations increased the hotel accommodation filled up and additional hotel accommodation had to be organized.

The university college accommodation was significantly cheaper. Because the University is about 4.5 km from the Centre, bus transport was provided between the colleges and Darling Harbour. By the beginning of the GA all college accommodation had been booked. Unfortunately the final number of allocated rooms was less than the initial allocation (600) because the colleges needed some of the accommodation to satisfy other requests before the needs by GA participants could be finalized. A notification that college accommodation would not be available past July 25, occurring after the accommodation for the entire GA had been confirmed for many participants, created a major problem.

The final accommodation numbers were:

College accommodation: 395 rooms Hotel accommodation: 690 rooms

Billeting program. In August 2002 a billeting scheme was implemented by Jon Everett to assist overseas visitors with accommodation. As part of the scheme, Jon set up a billeting bulletin board linked to the GA website, designed to enable two-way communication between those requiring accommodation and those offering it. The scheme had some success even though the bulletin board received very few 'hits'. Jon managed to indirectly billet 5 delegates with host families, and arranged backpacker accommodation for about 15 persons. ICMS also arranged some backpacker accommodation. Attempts to have students billeted with local astronomy families were unsuccessful, although a few Sydney delegates hosted overseas and interstate friends.

If such a scheme is envisaged for the Prague GA, it is recommended that it should be implemented at least two years before the meeting.

# 2.6.10 Registration Statistics

The following table shows the build-up of registrations with time. In the table, 'Teachers' represent non-IAU members who were permitted to attend SPS4. 'Exhibitors' were provided at least two free registrations per display booth. The total number of registrations for dates near the listed deadlines are underestimates, because ICMS had not processed all the submissions received by those dates. In addition, not all the listed registrations were paid for by the dates shown, and some unpaid registrations were subsequently cancelled. However, the final numbers were based on actual attendance.

Date	IAU Members/	Reg. Guests/	<b>Students</b>	Media/	<b>Teachers</b>
	Inv. Participants	Children		<b>Exhibitors</b>	
Dec 09	24	7	0	0	0
Dec 17	30	7	0	0	0
Jan 16	52	15	0	0	0
Feb 18	196	36	0	0	0
Mar 17	324	61	3	0	1
Apr 14	571	87	4	1	1
Apr 29	992	176	25	2	2
Apr 30	Initial deadline for ea	rly registration			
May 08	1423	227	28	2	2
May 09	May 09 Payment reminder sent to those who had registered but not yet paid				
May 22	1505	232	32	9	8
May 28	1573	234	33	9	10
May 31	Extended deadline fo	r early registrati	on		
Jun 03	1742	252	76	11	10
Jun 23	1810	263	93	43	13
Jun 30	1824	261	98	49	14
Jul 08	1849	263	97	52	15
Final Nos	s 1832	263	94	94	24

The list does not include 21 local lighting engineers who attended a Commission 50 Working Group meeting ('Control of Light Pollution') free-of-charge. At one stage quite a few Registration Forms without payment were received from Nigeria and Ghana. Investigations indicated that with one or two exceptions these were not from astronomers, but from people attempting to obtain visas to enter Australia. At the moment this appears to be a general practice experienced in conference registrations.

#### 2.6.11 Final Attendance Information

Overall Attendance:	
IAU Members	1082
Invited Participants	750
Registered Guests (>11 years old)	185
Children (11 & under: free)	79
Student-Volunteers (AUD220 fee)	94
Other Categories:	
IAU Members/Invited Participants (free)	26

Exhibitor Registrations (free)	47	
Discounted Retirees	15	
Teachers (AUD220 fee)	24	
Lighting Engineers (free)	21	
Media (free)	21	
Media Assistants (free)	27	
Other Discounted (e.g. Visitors: free)	13	
Day Registration	2	
Industry Day Attendance (free)	125	
Registered 'no-shows'	80	(23 had paid)
Distribution of Participants by Country (>100 parti	cipants):	
USA	632	
Australia	388	
Japan	145	
China	136	
TITZ		
UK	131	

Number of Countries Represented: 66 + autonomous regions of China

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# 2.6.12 List of Participants

France

A List of Participants up until 1 July was included in the GA satchels. A final list is contained in Annex 12.

#### 2.7 Financial Matters

# 2.7.1 Budget details

In the early budgeting, the estimates for several large items (for example sponsorship, venue hire, and AV facilities) were extremely uncertain. Consequently, there were some anxious moments during the first few months of 2003. Although the final cost of the Centre hire (AUD470,000) had come in under budget, at that stage the number of registrations was very low and threatened by the prospect of war in Iraq and SARS, the income from sponsors was low (AUD50,000), and AV costs were threatening to blow out. Thus there was general relief when the number of registrations exceeded 1,500, requests for Government grants were successful, and the final cost of AV facilities was less than 10% higher than budgeted.

There have been serious delays in obtaining the final financial results, an unfortunate consequence of the virus attack on the ICMS computer network during the GA. Appendix A lists the final financial details based on an updating of information provided by ICMS on March 31, 2004. It shows a total income of AUD2.2 million and total expenditure of AUD2.1 million, providing a net surplus of AUD65,000.

As already mentioned, the true cost of the GA significantly exceeds the listed value. No recognition has been given to the considerable costs incurred by several Australian institutions which donated astronomers and facilities free-of-charge during the GA organization.

# 2.7.2 Risk Management Analyses

In August 2002 the NCA recommended that the GA budget be reviewed by Joan Wilcox, Executive Officer at AAO, with the intention of developing a disaster strategy in the event that the GA organization resulted in a substantial financial loss. She met with representatives of the NOC and ICMS on November 14, and the budget was reviewed and revised in the light of the most recent information about the listed items. Although no major problems were revealed at that stage, it was suggested that a further review be held in April, near the deadline for early registration. A budget analysis in February indicated that, still assuming AUD350,000 in sponsorship funds, about 1,500 delegates would be needed to break even.

A second two-day budget review was carried out at the beginning of May, this time adopting a lower income of AUD140,000 from sponsorships. It was estimated that, based on 1,400 participants, the budget would balance if the AUD99,000 float funds were not reimbursed. Because the number of registrations was increasing steadily and had already exceeded 1,400, this marked the point at which the NOC began to feel confident that the budget would at least break even.

#### 2.7.3 Cash Flow Problems

By the end of 2002 the on-going expenses of the GA organization threatened to exceed the available funds (initial float plus a small amount of registration money already received). The crisis was averted when ATNF agreed to provide an interest-free loan and ICMS agreed to a deferment of its management charges. Fortunately, by March the number of registrations had increased to a level where the cash-flow emergency was over.

#### 2.8 Scientific Presentations

#### 2.8.1 Dealing with Abstracts for Oral and Poster Presentations

A full electronic treatment of abstracts had been planned from the outset, with only text-only format being accepted to minimize problems associated with mixed formats. During May-June 2002 Bruce Peterson and ICMS developed a strategy for the submission of abstracts, the specifications of the on-line abstracts form, and the procedures and format for the GA Abstract Book included in the GA satchel.

All abstracts for Symposia, JDs and SPSs were to be submitted to a single ICMS data base, with the SOCs of the various meetings being provided with access passwords to enable them to access the abstracts relevant to their meetings. SOC Chairpersons were given extra privileges enabling them to add classifications to the abstracts.

The formal deadline for receipt of the abstracts by the SOCs was initially set as February 15 2002, but was later extended to March 1. In reality the set dates were academic because the SOCs could set their own deadlines. Some SOCs extended their deadlines, and the NOC requested that in such cases the information be sent to Bruce Peterson for inclusion on the GA website. Of more importance was the deadline (initially May 15 but later May 31) for the SOCs to have completed their selection of accepted presentations, either oral or poster. Provided the abstract authors had registered for the GA by the deadline, the accepted abstracts were included in the Abstract Book

There were some problems with producing an on-line form for the submission of abstracts. Although these had been ironed out by November 2002, the testing process did not include an assessment of speed of access under high-volume conditions. As the number of abstracts increased, early in 2003 some SOCs started to complain about the slowness of the access to the abstracts database in the ICMS computing system. Investigations by ICMS failed to increase the speed. Accordingly, in April an alternative review process was implemented in which an SOC could print out its abstracts and fax the review results to ICMS. ICMS would then enter the results into its database. This appeared to appease the affected SOCs, but left ICMS with a substantial extra workload.

As another change of policy, it was originally intended that ICMS would be responsible for informing abstract authors about the results of the SOC reviews. However, in view of the review problems, in May the NOC decided that it would be more reliable if each SOC were to be responsible for circulating its own results.

To broaden the use of the Abstract Book, in March the NOC and ICMS agreed that abstracts for presentations at smaller meetings (Working Group meetings, special Division and Commission meetings etc.) would be included in the Abstract Book if each meeting convenor sent ICMS a single Word file containing all the meeting abstracts by May 15 (subsequently May 31).

The procedure for dealing with the abstracts did not permit an abstract submission to be modified once submitted. This meant that if a submission was found to be incorrect for any reason whatsoever, a new abstract had to submitted. This repetition contributed to the 2,786 submissions that were received, and resulted in extra effort being required to identify and exclude the superceded submissions. 2,103 final abstracts were included in the Abstract Book. In retrospect, a system that enabled a single entry to be revised would have been more manageable and may not have caused the computer overload that eventuated.

In the preparation of the Abstract Book, substantial effort was needed to ensure that all the submitted abstracts were reviewed and classified by many SOCs and before the specified deadline. ICMS has commented that at least 6.5 weeks should have been allocated from the end of abstract review, 4 for preparing the database and setting up the document, and a further 2.5 weeks for printing.

#### 2.8.2 Posters Overload

In the initial planning, all posters apart from special exceptions (e.g. posters associated with small or short meetings) were to be located in the Exhibition Hall. The planned use of the Hall was based on a maximum of about 500 posters (maximum size of each 1.2 metres high 1.0 metres wide) displayed at any one time, with a poster changeover during the weekend within the GA period, in conjunction with an attendance number of 1,500. However, the NOC had agreed to display all posters approved by meeting SOCs, and the final number exceeded 1,360. In view of this and the larger attendance, at short notice the NOC decided to create more space for the delegates by locating some of the Symposium posters within the Convention Centre, in hallways near the corresponding meeting rooms. A further complexity was present in that alternative Centre locations were needed for Exhibition Hall posters on the first Monday and second Friday when the Hall was unavailable.

Although the relocation of the poster boards and posters was achieved satisfactorily, thanks to ICMS staff, Student-Volunteers and moving contractors, with hindsight more effort should have been made in the early planning to provide access to Exhibition Hall 5 for the two extra days.

At the beginning of the first GA week, coffee was provided in the foyers containing the Symposia posters. However, the delegates attending these meetings did not visit Exhibition Hall 5 and the exhibitors were unhappy about the lack of delegates in the Hall. Consequently, the NOC decided to confine the coffee areas to the Hall, with the result that the exhibitors were happy but some delegates were unhappy about having to walk the extra distance to the Hall during the coffee breaks. Some delegates complained that there was insufficient time to talk to others or inspect posters. Although the extra walking time might have contributed to the problem, session overruns into the half-hour breaks also exacerbated the time problem. The NOC concluded that organizers of future GAs should consider increasing the break periods to forty-five minutes, perhaps commencing meetings half an hour earlier in the morning.

Future organizers of GAs may also wish to consider if unrestricted acceptance of posters is a good strategy. Although it may enable more astronomers to obtain funding to attend the meetings, planning of display areas becomes more difficult. Another question is whether a meeting can have too many posters because of publishing problems - for several of the Symposia there were too many posters to publish (one meeting offered to place posters on a website for an unspecified period). For the JDs, only poster abstracts will be included in Volume 13 of the Highlights.

# 2.9 Publicity and Media Involvement

# 2.9.1 Advance Publicity

As noted already, the GA was advertised at the Manchester GA: a display near the Registration area and a presentation by David Malin at the Closing Ceremony.

# 2.9.2 Publicity Outlets

Mindful of the potential impact of international instabilities and high registration and airfare costs on the attendance, the NOC undertook a program of active advertising to persuade astronomers to attend the GA. The GA website provided the main publicity outlet. Formally, the IAU advertised the meeting in IB90 (preliminary announcement), IB91 (Special Issue containing preliminary program and forms for IAU Travel Grant application, registration and accommodation), IB92 (hotel distributions, IAU Travel Grant application and tour booking forms), and IB93. A distribution of GA posters together with information on deadlines and travel grants was begun at the end of 2002 and continued into 2003, using AAO and AAS address labels. In April, the IAU Secretariat emailed a GA reminder to the IAU membership.

A second means of advertising was in articles on the GA in various publications. These included the AAS general and High Energy Astrophysics Division Newsletters (thanks to Kevin Marvel and the AAS Management for their outstanding support), ATNF News, ASA Newsletter, Bulletin of the Astronomical Society of India, and European Astronomical Society Newsletter.

A third effective means consisted of publicity at astronomical meetings. Several Australian astronomers took GA handouts overseas during 2002. Presentations and/or displays were provided at the following meetings: July 2002 IAU Regional Meeting in Japan (Ron Ekers presentation); October meetings of the Astronomical Society of Japan and World Space Congress; January 2003 Seattle meeting of the AAS (display booth plus Rachel Webster presentation); March meeting of Astronomical Society of Japan (banner and handouts managed by Phil Edwards); UK National Astronomical Meeting (NAM) in April (banner plus presentation by Michael Kramer).

# 2.9.3 Media Publicity

With the assistance of the Axis Public Relations and Marketing Company, a media campaign was launched for the GA and the Festival of Astronomy on June 19 at Sydney Observatory. It involved Ron Ekers, Nick Lomb and David Malin. About a dozen media people were present at the press conference.

The following media campaign was extensive. Annex 13 contains the Executive Summary of an extensive marketing report prepared by Paula Opfer of Axis. The campaign strategies were to publicize the public talks and associated speakers, publicize the Festival's events, and to provide handouts for the Astro Expo and the three major talks at the Convention Centre. The report points out that the combined press and print, television and radio coverage had an advertising value (based on casual rates) of almost AUD1.5 million and an editorial value (in terms of publicity) exceeding AUD27 million.

The report lists several considerations for future GAs:

- The PR budget of AUD20,000 was too small
- The major talks needed advance advertising; in many cases the media coverage occurred after the event
- The publicity program should have commenced earlier than six weeks prior to the GA. The large number of stories presented to the media in this period resulted in media saturation, with some being rejected during the last two weeks of the public program.

# 2.9.4 GA Newspaper

Ten daily issues of the GA Newspaper 'The Magellanic Times' were published during the GA. Helen Sim began planning the article schedule for the issues in May. Seth Shostak (Seti Institute) acted as Editor. The daily routine began with a team of 'reporters' being dispatched to various locations around the Convention Centre to sitin on presentations, hunt down people for interviews, and line up authors to be photographed (with Shostak doubling as head photographer). Student-Volunteers wrote many of the articles, as well as acting as runners for the media staff to locate people needed for interviews. Articles were supposed to be finalized by 1 pm on the day prior to planned publication, but some were often finished later in the afternoon. After layout, the final versions were emailed to the printers, who ensured that 2000 copies in colour were delivered to the Centre early the following morning.

# 2.10 Limited Survey of the Organization of the GA

A questionnaire was distributed to all participants during the first week of the GA. Although only about 5% of the responses were analyzed, a number of common issues

were highlighted that might be considered (some of them have been already mentioned):

- Poster location difficulty in locating posters; the location at the rear of the Exhibition Hall was not conducive to discussions
- Coffee break location too much time spent having to walk to and from the Exhibition Hall
- Registration fee too high; the requirement for total payment at the time of registration was a problem for some people
- Website issues the links to scientific meetings were not always good
- Airport reception participants arriving before 7 am were not met; no reception was provided during week
- Buses to college the schedule was not always the most effective
- Programme Book out of date even before the GA started
- Credit card problems transactions with ICMS Australia were refused

Aside from these adverse comments, since the end of the GA, NOC members have received many positive comments about the venue, Opening Ceremony, speaker preparation and AV operation, internet café, wireless connectivity, the 'Party', and the scientific program.

# 2.11 How did the GA benefit Australian Astronomy?

Hosting the GA in Australia required a considerable effort and cost (much of it hidden). To estimate the true cost to the astronomy community account must be taken of the loss of scientific productivity over several years for many people who have been involved in the organization, the associated salary costs of these people, and the other costs absorbed by institutions – travel to GA-associated meetings, cost of meeting support (e.g. cost of teleconference calls, secretarial support etc). During the final few months before the GA, the demands on the NOC increased dramatically, resulting in extra pressures on the members with daily employment commitments. The NOC membership included three retired astronomers who were able to increase their involvement in GA organization more easily, and the inclusion of such people might be considered in the composition of future GA organizing committees.

So what have been the benefits to Australia apart from the obvious financial benefit of having some 2,000 visitors spending two weeks in Sydney? Prestige of being chosen as hosts to an international meeting? In a sense we have managed to take advantage of having the world's astronomers on our doorsteps to publicize Australian astronomy – exhibition displays (Australia Pavilion), Industry Day, Observatories Tour, sessions on the history of Australian radio astronomy. Australian amateurs were provided with a free display booth. One important bonus was the opportunity provided for Australian astronomy students to participate in a GA. The Australian public had the opportunity to learn more about astronomy via the Astro Expo, public talks, other associated events, and increased media publicity. Free or discounted participation was provided to non-astronomers with particular interest in some of the sessions – Australian lighting engineers at the Commission 50 working group meeting on controlling light pollution, teachers at SPS4 (Effective Teaching and Learning of Astronomy), people with special interest in the Australian history sessions (e.g. grandchildren of pioneer radio astronomer J. L. Pawsey). In all, could we have done

better? Maybe! It is an important aspect that the NOC did not specifically address, and it should be considered by future GA hosts.

# 2.12 Acknowledgements

# 2.12.1 ICMS

This report would not be complete without an acknowledgement of the enormous role played by ICMS in the success of the GA. Involved in just about every fact of the organization, ICMS steered the NOC to success, processed registration, accommodation bookings and abstracts, negotiated with SCEC on behalf of the NOC, and organized and managed the exhibition (even accepting the challenge of the last-minute Australia Pavilion organization). It provided the NOC with support to the extent of agreeing to delays in ICMS fee payments during the period when the NOC's cash level was very low. Credit for the outstanding overall support must go to ICMS head Bryan Holliday. Other specific names that come to mind are Lee Christopher (dynamic NOC/ICMS interface who even took over the Exhibition Hall 5 organization at one stage), Sue Butterworth (NOC/ICMS during 2002, replaced by Lee), John Gorton (Exhibition Manager), Pamela Wheat (Welcome Reception, Opening Ceremony and GA Party), Nicole Hayward (Registrations), Albina Bradford (Abstracts) and Rebecca Innes (AV facilities). Thank you, ICMS!

It was unfortunate that the ICMS computer network failed when ICMS attempted to add computer information obtained during registration at the Convention Centre to the master database at ICMS Headquarters. The failure was believed to be caused by a computer virus, possibly occurring when ICMS downloaded internet files during the GA. An enormous effort has been necessary to recover the corrupted information.

#### 2.12.2 SCEC

The SCEC staff, headed by Annabel Davis and Sue Joseph, were always extremely helpful and keen to provide the best service possible. As a result, SCEC provided the astronomers with a venue and service that we believe will never be surpassed. Interestingly, towards the conclusion of the GA Annabel remarked that the participants would be missed by SCEC staff when the GA ended. She felt that, resulting from the unusually long meeting compared with others held at SCEC, an atmosphere of friendliness and togetherness had developed between the staff and the conference organizers and participants which she had not experienced previously.

#### **2.12.3 DVA Navion**

The fundraising consultants DVA Navion is acknowledged for their success in obtaining sponsorship money for the GA. At the stage when its services were retained in September 2002 for a period of six months, no significant sponsorship support for the GA had been obtained, and the success in obtaining the extensive Government funding in particular reflects the company's professional approach to the matter. It is noteworthy that Senior Partner Graeme Bradshaw and Senior Consultant Patrick Russell together with other staff continued beyond the end of the contract in March to follow-up the major funding submissions to their successful conclusion.

# 2.12.4 Report Contributions

Much of this Report has been based on information provided by information provided by several people. We wish to acknowledge contributions by Michael Burton, Aaron

Chippendale, Lee Christopher, Tamara Davis, Anne Green, Raymond Haynes and Nick Lomb.

GA25 NOC Co-Chairmen: Harry Hyland, James Cook University John Whiteoak, Australia Telescope National Facility April 13 2005

# $\begin{array}{c} \textbf{APPENDIX A} \\ \text{IAU 25}^{\text{th}} \text{ General Assembly} \end{array}$

# FINAL INCOME AND EXPENDITURE STATEMENT (GST exclusive) (Based on ICMS statement of 31 March 2004)

	BUDGET (AUD) (150	ACTUAL (AUD) 0 Delegates)	VARIANCE (AUD)
INCOME  Registration Fees	1,306,350	1,548,557	242,207
Initial 'float' and extra ASA loan	153,691	153,691	0
Sponsorship	420,000	217,364	(202,636)
Exhibition Income	204,500	148,645	(55,855)
Schools Day	9,000	0	(9,000)
Public Exhibition	90,000	6,582	(83,418)
Bank Interest	10,000	33,097	23,097
Room Commission Rebate (hotels) College Accommodation Surcharge	10,000 45,000	10,000 27,514	0 (17,486)
IAU Reimbursement for Posters	12,000	12,000	(17,480)
Publications Management Fee	12,000	10,909	10,909
Sundry Income	0	10,257	10,257
TOTAL INCOME	2,260,541	 2,178,616	(81,925)
LESS EXPENSES			
GENERAL			
Venue Hire	383,000	369,370	(13,630)
Repayment of 'float' and ASA loan	153,691	140,191	(13,500)
Signage/Sponsor Acknowledgments	15,000	12,669	(2,331)
Audio/Visual & Technicians	200,000	226,189	26,189
Coffee Breaks	151,200	93,522	(57,678)
Hire/Construct Registration Booths	15,000	3,531	(11,469)
Internet Cafe Message Bank	50,000 25,000	50,491 0	491 (25,000)
Pidgeon Holes	5,000	6,905	1,905
Uniforms for Volunteers	2,500	1,620	(880)
Transport - Colleges	26,000	16,163	(9,837)
Speaker Ready Room	0	2,835	2,835
Additional ATNF Expenses	0	14,461	14.461
Sundry Expenses	0	3,758	3,758
	1,026,391	941,705	(84,686)
SOCIAL EVENTS			
Opening Ceremony Cocktails/	75,000	94,447	19,447
Open Ceremony/Venue, stage etc Closing Ceremony	63,000 15,000	90,380 0	27,380 (15,000)
Banquet Subsidy	15,000	21,361	6,361
Wine Tasting	0	6,525	6,525
Women in Astronomy Lunch	0	7,703	7,703
Industry Day Lunch	0	4,827	4,827
Industry Day Cocktails	0	2,523	2,523
	168,000	227,766	59,766
PUBLICITY AND PROMOTION			,
Logo Design	2,000	60 3.750	(1,940)
Logo Licence	3,750	3,750	1 920
Website Design/Maintenance Manchester Promotion	20,000 26,000	21,830 20,535	1,830 (5,465)
Promotions Overseas	30,000	40,568	10,568
Sponsorship Consultant Commission	70,000	99,815	29,815
First Announcement Costs	5,000	4,267	(733)
Registration Brochure/IB	625	1,085	460
Sponsorship Brochure	2,000	0	(2,000)
List of Delegates	3,000	4,300	1,300
Name Badges and Tickets	10,500	6,809	(3,691)
Media Campaign/Onsite Office	25,000	82,779 506	57,779
Advertising (Public Lectures)	10,000	506	(9,494)

Satchels/\$16 Congress Newsletter Ticket Sales	24,700 15,000 0	32,017 14,351 2,490	7,317 (649) 2,490
	247,575	335,162	87,587
SCIENTIFIC PROGRAM	10.000	00 555	10 555
Poster Boards/200 @ \$60 Poster Board Numbers	12,000 2,000	22,555 274	10,555 (1,726)
Program Book	20,000	11,330	(8,670)
Abstract Book	20,000	32,500	12,500
Pocket Program	7,500	0	(7,500)
Ushers	0	1,008	1,008
1.D.V.1.V.T.G.T.D.1.T.T.O.V.	61,500	67,667	6,167
ADMINISTRATION  Postage and Freight	20,000	5,459	(14,541)
Fax/Telephone/Couriers	8,000	2,545	(5,455)
Stationery/Letterhead/Envelope:		5,045	1,045
Photocopying/Bulk Typing	5,000	4,733	(267)
Insurance	15,000	16,363	1,363
Committee/Meeting Expenses Management & Secretariat Fees	0 150,000	6,043 177,330	6,043 27,330
On-Site Casual Labour	2,000	22,577	20,577
Legal Fees	4,000	3,183	(817)
Audit Fee	4,000	8,739	4,739
Credit Card Commission	10,000	33,625	23,625
Bank Fees	10,000	952	(9,048)
Staff Catering FSC/RC Meeting	0	7,653 768	7,653 768
Building Services	0	1,773	1,773
Satchel Packing	0	345	345
Security	0	10,464	10,464
EXHIBITION EXPENSES	232,000	307,597	75,597
Venue Hire	87,000	86,580	(420)
Advertising	10,000	0	(10,000)
Signage/Entrance Feature	10,000	5,148	(4,852)
Carpet	20,000	16,733	(3,267)
Shell Scheme	25,000	13,430	(11,570)
Infill walling Cleaning	3,000 6,000	1,440 4,356	(1,560) (1,644)
Theatrette	5,000	4,765	(235)
Electricity	4,000	1,242	(2,758)
Security	15,000	15,078	78
Catering	15,000	0	(15,000)
Badges Brochure	2,000 5,000	0	(2,000) (5,000)
Manual	2,000	375	(1,625)
Exhibition Brochure	5,000	6,400	1,400
Furniture Hire	0	7,088	7,088
Child Care	0	12,254	12,254
Office Equipment Technology Australia	1,500 0	4,774 17,914	3,274 17,914
Management Fee	31,000	33,772	
Labour	0	350	350
Exhibition Consultant	0	1,840	1,840
Creche	0	0	0
	246,500	233,539	(12,961)
TOTAL EXPENDITURE	1,981,966 183,000	2,113,436	131,470 (183,000)
Contingency/10%	183,000		(103,000)
GRAND TOTAL EXPENDITURE	2,164,966	2,113,436	(51,530)
NET SURPLUS	95,575	65,180	(30,395)