Mapping Sciences National

Issue No 18 October 2006

National Newsletter / Magazine of the Mapping Sciences Institute,

Inside:

cartography in the news

"Whilst little appears to have progressed nationally with the (SSI) Cartography Commission I am however pleased to report that at a regional level multidisciplinary/ commission participation is active . . "

SSI announces demise of Cartography Commission

Peter Bowen (pictured) writes in the 2005-2006 Spatial Sciences Institute Annual Report:

". . whilst we have continued to work co-operatively with the Mapping Sciences Institute Australia, actively advertising and promoting their events and keeping their members aware of SSI events, our collective efforts have all but been in vain and to no avail. Without doubt this unnecessary friction remains counterproductive to enhancing the benefits of those participants active within the spatial information industry."

". . in partnership with the Spatial Information Commission, we have pursued the potential unification of both commissions to form what may be called the Geographic Information Science and Technology (GIST) Commission".

"Whilst little appears to have progressed nationally with the Cartography Commission I am however pleased to report that at a regional level multidisciplinary/ commission participation is active reflecting very much a SSI team environment".

Editors Note:

MSIA continue to actively promote events and include articles from all allied bodies which we believe can only further our members and the wider communities awareness of what is happening e.g. IGNSS, CoastGIS, IGU, SSI, GITA and Australian Map Circle are all reported.

Good luck with the new GIST ComboCom *(will that be with fries sir?)* - check out the work of the SSI at: www.spatialsciences.org.au/

"The ICC2005 conference report in the November 2005 issue of the newsletter neglected to mention that Ms Dorothy Prescott attended as the Australian representative on the History of Cartography Commission. David Fraser apologises for this oversight."

Cover:
HM Bark replica Endeavour
Courtesy:
Aust. National Maritime Museum

The Guardian *www.guardian.co.uk*
Mark Honigsbaum - Friday September 15, 2006

Throw book at thief, says library

It helped shaped Europe's view of America and survived the burning at the stake of its first owner, Thomas Cranmer, the Archbishop of Canterbury, as well as the English civil war and the Blitz. But the world map, drawn by the 16th century German cartographer Peter Apian and one of the first to show America as a separate continent, could not survive the visit of Edward Forbes Smiley III to the British Library in June 2004.

Smiley, a 50-year-old US dealer in rare maps from Martha's Vineyard, Massachusetts, pleaded guilty in a US federal court this year to stealing 97 rare maps, worth £1.6m, including the Apian, from the British Library and leading US institutions. He had been armed only with a razor blade. Now the British Library is demanding that US authorities throw the book at Smiley, saying he stole three other maps, worth in total £47,000, from the library and that by razoring the rare 1520 Apian map from a volume owned by Cranmer - a key Turdor figure - he was guilty of "ripping at the heart" of a public institution.

BBC News - Tuesday 11th July 2006
http://news.bbc.co.uk/

Walkout by Ordnance Survey staff

Hundreds of workers at the national mapping agency Ordnance Survey (OS) are staging a strike in a row over pay. More than 400 members of the Public and Commercial Services union and Prospect walked out on Tuesday for 12 hours.

The unions claim staff's pay expectations are not being met but OS bosses said the most recent pay offer is "fair and realistic".

OS have stubbornly refused to acknowledge that staff who have patiently borne a succession of poor pay offers feel that patience has run out

Events

SINGAPORE
November 14 - 17, 2006
IMTA International Global Conference
www.maptrade.org.au

GLASGOW
November 17, 2006
The Map Designers
British Cartographic Society
www.cartography.org.uk

CANBERRA
November 20 - 24, 2006
13th Australasian Remote Sensing and Photogrammetry Conference
www.arspc.org

CANBERRA
February 11-14, 2007
Australian Map Circle Conference
http://australianmapcircle.org.au/

HOBART
May 14-18, 2007
Spatial Sciences Conference
www.spatialsciences.org.au

MOSCOW
August 4-10, 2007
International Cartographic Conference
www.icc2007.com

SANTANDER - Spain
November 2007
CoastGIS 07
www.coastgis.org

GITA Events:
Darwin - October 17, 2006
Perth - November 14, 2006
Adelaide - November 16, 2006
www.gita.org.au

Secretary's Spin

THE DIRECTORS' AWARD 2006

The Directors of the public company which is the Mapping Sciences Institute, Australia are Ron Furness *(Chairman)* Keith Smith *(Secretary)* and Alan Armitage *(Treasurer)*. Their inaugural award acknowledged the most significant contribution made by an individual to the development to the MSIA during the period 2003 to 2006.

The nominees were:

John McCormack for his role as National President for the whole of this period.

Trevor Menzies for his role in organizing the *"400 Years of Mapping Australia"* conference in Darwin, 23 to 25 August 2006.

Greg Heron for his role in editing and compiling *Mapping Sciences National*, the national newsletter during the period.

And the winner was…

Trevor Menzies for his role in organizing the conference.

Presentation of the award to Trevor was made in an impromptu ceremony during the Conference dinner at the Crowne Plaza Hotel. Stars of the award ceremony were the dynamic duo of Adam Ladhams, current President of the Queensland Division and Alison Lyall, a former President of the Victorian Division.

Congratulations to Trevor.

SEEN AT THE CONFERENCE

Just returned from yet another visit to the UK were **Dex** and **Judy Johnston** of Perth, looking as youthful as ever. We don't believe that Dex and Judy have missed a single "carto" conference since they began in Sydney 32 years ago!

On Friday at the "technical" sessions we spotted the lovely **Marianne**, who was one of the star performers at the 8th Cartographic Conference, held in Darwin in 1990. Wot? No crocodile suit this time Marianne?

Also seen briefly on Friday was another 1990 star, the not-quite-so-lovely **Bob Creek**. Bob was also seen enjoying a few beers on the verandah of the Irish pub with most of the current councillors after their Saturday meeting. Much reminiscing about the good old days, no doubt.

There on the verandah with the "old boys", enjoying a sedate glass of white wine was the ageless **Peggy Armitage**. Peg has been such an enduring and enthusiastic "accompanying person", it must be time we made her an honorary member of the Institute.

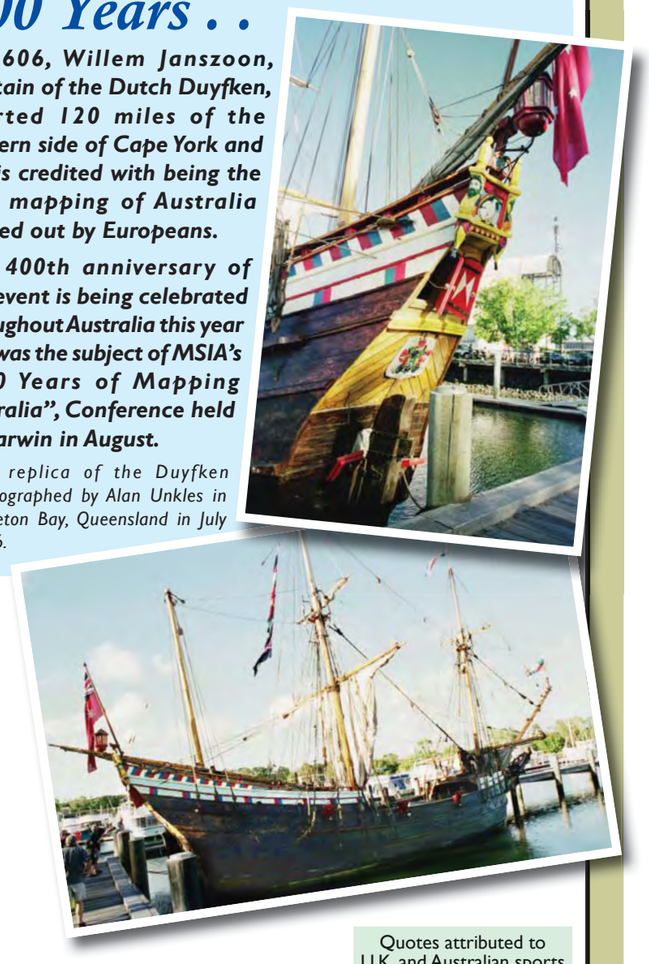
Very pleasing to see new Member **Gorah Alibegovic** of Perth participating in the formal program and the social events.

Also heartening to observe Queensland stalwart **John Ashby** in attendance. John has been a long-time supporter and we're pleased to see he's still hanging in there.

400 Years . .

In 1606, Willem Janszoon, Captain of the Dutch Duyfken, charted 120 miles of the western side of Cape York and this is credited with being the first mapping of Australia carried out by Europeans.

The 400th anniversary of this event is being celebrated throughout Australia this year and was the subject of MSIA's "400 Years of Mapping Australia", Conference held in Darwin in August.



The replica of the Duyfken photographed by Alan Unkles in Moreton Bay, Queensland in July 2006.

CAREER CHANGES

Erstwhile National Councillor representing Western Australia, **Kathryn Tobin**, since leaving Woodside Petroleum in Perth, has held a couple of positions in the East, most recently in the Petroleum and Marine Division of Geoscience Australia. Kathryn has now moved to the Australian Federal Police in Canberra, where her role is in Spatial Data Acquisition.

Adam Ladhams has taken a position with the PMM Group in Brisbane, part of Conics.

Long-time forestry worker, **Alan Unkles**, our Membership Manager, now finds himself the Manager, Business Support, Forestry Products, Department of Natural Resources, Mines and Water, Queensland.

BEREAVEMENT

We were saddened to learn of the recent passing of **Noel Fletcher**, former Surveyor-General and Director of Mapping of New South Wales.

Quotes attributed to U.K. and Australian sports announcers and athletes

"We now have exactly the same situation as we had at the start of the race, only exactly the opposite." - Murray Walker.

"I'll fight Lloyd Honeyghan for nothing if the price is right." - Marlon Starling.

"Once Tony Daley opens his legs you've got a problem." - Howard Wilkinson.

"Ah! Isn't that nice, the wife of the Cambridge President is kissing the cox of the Oxford crew." - Harry Carpenter.

"Sure there have been injuries and deaths in boxing - but none of them serious." - Alan Minter.

CoastGIS 2006

Wollongong & Sydney NSW

In July 2006, approximately 150 delegates, drawn from all inhabited continents (we think from 18 countires including Iran and Peru), converged on Sydney Olympic Park and Wollongong University in New South Wales, Australia, for the 7th International CoastGIS meeting.

CoastGIS, the International Symposium on GIS and Computer Mapping for Coastal Management, is a series of conferences that began in Cork, Ireland, in 1995 as a collaboration between the Commission on Coastal Systems of the International Geographical Union and the Commission on Marine Cartography of the International Cartographic Association of which the author is presently Chair. Although that meeting was planned as a one-off, it was such a success that CoastGIS has now evolved into a regular, two-yearly event. Subsequent CoastGIS meetings have now been held in Aberdeen, Scotland (1997); Brest, France (1999); Halifax, Nova Scotia, Canada (2001); Genoa, Italy (2003); and Aberdeen again (2005). And now, in 2006, CoastGIS came to the Southern Hemisphere for the first time, and the meeting just held in Australia.

Fully in keeping with the CoastGIS tradition, the latest meeting was a great success on all fronts. Before the Symposium itself, a pre-conference visit and workshop was held at the Sydney Olympic Park, co-hosted by the Sydney Olympic Park Authority, SOPA, and the Department of Geography at Sydney University. In the morning of the Workshop, delegates were treated to a fascinating guided tour of the entire site, and learned about the history, current management and future plans for SOPA. Of particular interest and focus, of course, were detailed overviews and descriptions of the role GIS plays in the process. This was followed, in the afternoon, by a choice of half-day workshops on "Fuzzy Logic in Coastal GIS", "Modelling of Marine and Coastal Oil and Chemical Spills in Australia" and "Developments in Mapping of Australian Coastal Seabed Habitats", before the delegates travelled on to Wollongong in the evening.

". . a much broader geographical reach was ensured, with other papers focusing on coasts from China to Europe, Kenya, the United States, Brazil, and even the lakeshores of Azerbaijan and northern Iran"

". . there is a dynamic new generation of very able, engaged and GIS-committed coastal managers and scientists working their way up through the system . ."

Vice Chancellor University of Wollongong, Professor Gerard Sutton Captain Rod Nairn RAN, Hydrographer of Australia Professor Colin Woodroffe, Co-organiser Dr Marji Puotinen, Organiser and CoastGIS Program Director Dr Neil Williams, CEO Geoscience Australia, and Ron Furness, Co-organiser

The conference proper offered three days of papers and poster presentations, on topics as diverse as technologies for capturing and managing data for on- and off-shore environments; the challenges inherent in joining up marine and terrestrial data into integrated seamless databases; institutional aspects of designing and implementing spatial data infrastructures; and GIS-based modelling of coastal processes and activities; as well as a broad diversity of applications of the techniques for coastal zone planning, management and administration.

In all. more than 80 presentations were delivered. While the majority of papers were understandably and inevitably concerned with aspects of the Australian coast, a much broader geographical reach was ensured, with other papers focusing on coasts from China to Europe, Kenya, the United States, Brazil, and even the lakeshores of Azerbaijan and northern Iran. For this reviewer, one particularly satisfying aspect of the conference programme was the balance achieved between the technical and the more theoretical or conceptual papers, and also the mix of presentations from academics and those from practitioners in a wide diversity of coastal science and management agencies and disciplines. As regards the academic presentations, particular mention should also be made of the number of extremely high-quality papers presented by postgraduate (and, in at least one case, undergraduate) students, describing research work undertaken in the course of their thesis projects. If this particular sample is indicative of the current status of graduate research and training, then it seems clear there is a dynamic new generation of very able, engaged and GIS-committed coastal managers and scientists working their way up through the system, and about to emerge into the professional arena.

Two other interesting trends were also evident, particularly to those participants who have attended a number of CoastGIS meetings over the years. The first of these concerns a clear gradual shift of geographic focus, from mainly land-based coastal issues that were discussed in early CoastGIS meetings, particularly Cork, Aberdeen and Brest, to a progressively greater marine and deep-sea focus seen at the conferences in Halifax and Genoa. Now, at the 2006 meeting in Wollongong, the pendulum seems to be starting to shift back again, with increasing attention being devoted to the not inconsiderable challenges of integrating and linking the landward and seaward elements of the coast into truly unified, seamless 3- and 4-dimensional geospatial databases.

The second observation worthy of note relates to the evolution of coastal GIS applications presented at successive CoastGIS meetings. In part this clearly reflects the emergence, development and availability of new technologies, but to my mind it also indicates a more deep-seated and growing maturity of the field of Coastal GIS itself, with a correspondingly greater degree of confidence and innovation on the part of the practitioner community. At early CoastGIS meetings, most presentations focused on issues relating to the creation of geospatial databases for mapping, resource inventory and relatively simple (from our present-day perspective) analytical operations such as buffering and overlay techniques. Over successive meetings, this focus has gradually shifted to more advanced and computationally-intensive analyses, including integration of GIS with an ever-greater diversity of Earth Observation and positioning technologies (GPS, sonar, LIDAR, orbiting and airborne remote sensing instruments, etc.); connection of GIS with numerical modelling techniques (hydrodynamics, climatic, sediment transport, etc.); greater use of geo-statistical and related methods of quantitative analysis; increased use of dynamic and animated visualisations, including fly-throughs; and, inevitably perhaps, a greater use of internet technologies for integrating databases, publishing data and information, connecting up stakeholders and user-groups from various provenances, etc. Finally, in Wollongong especially, we see can increasing attention being given to the technical and organisational / human-related contributions that emergent spatial data infrastructures might make in assisting integrated and sustainable coastal zone management.

Those full papers that were received by the conference organisers in time were compiled and distributed to delegates on CD-ROM, and it is also intended that they will be posted on the CoastGIS website www.coastgis.org in due course.

In addition, it is planned that an edited and fully peer-reviewed selection of papers will also appear in a special issue of the *Journal of Spatial Science* shortly. Copies of the latest *Journal* were also inserted in delegates' satchels and were very well received by delegates, especially the international delegates. MSIA promotional material also was inserted.

Post-conference saw a well attend field trip take place along the south coast which included a boat trip down the Shoalhaven River estuary, while we were educated on geomorphology and history by Professor Colin Woodroffe, while Mick, the boat operator, regaled us with anecdotal history!

CoastGIS Committee Member Dr Eleanor Bruce with youngest registrant Mia

Photographs were taken throughout the conference and a selection for the curious is at http://www.uow.edu.au/science/eesc/conferences/docs/coastgis06_photos.pdf

It is expected that the conference will make a small surplus and the ICA share of this will be applied to the work of the Commission on Marine Cartography, specifically for the travel of the Greek ICA member of the FIG/IHO/ICA Advisory Board.

Professor Colin Woodroffe on the CoastGIS Field Trip with Brazilian, Debora Freitas

Ron Furness
Sydney 23 July 2006

ROYAL AUSTRALIAN SURVEY CORPS

An outline history…..

by **Lieutenant Colonel R.F. Skitch** *(ret)*

Following Federation in 1901 the newly formed Commonwealth Government became increasingly aware of the paucity of adequate mapping in Australia. While the independent colonies (now States) as a result of their land alienation activities had developed county and parish maps in various formats to show the pattern of Crown land alienation and some of these gave some indication of land form and drainage, there was no consistency nor were they based on anything approaching a common datum. Mostly they were compiled on a planar projection without any attempt at a mathematical projection from the spheroid.

Early attempts at producing military topographical maps, similar to the British Ordnance Survey maps were undertaken by the Australian Intelligence Corps (AIC) by adding topographical detail to the various State cadastral maps. This was a State based activity and involved some quite prominent individuals in each of the States. For instance in Victoria the activity was led by Lieutenant Colonel John Monash. In 1908 Colonel Bridges, the Australian Army's first Chief of General Staff wrote to the head of the British Geographical Section of the General Staff, one Lieutenant Colonel C.F. Close requesting advice and after some further correspondence it was agreed that the embryonic Australian Government would support a small detachment of Royal Engineers topographers to be assigned to Australia. In 1910 four Royal Engineers personnel arrived in Melbourne – Corporal J. Lynch and Lance Corporals Barrett, Davies and Wilcox, all with considerable mapping experience gained in Africa. Later in the year Lieutenant W.L. Whitham, a licensed surveyor from the Surveyor General's office in Adelaide was appointed Officer Commanding the Survey Section, Royal Australian Engineers (RAE). It wasn't until the 1st July 1915 that the RAE Survey Section, then augmented by further recruitment and at a strength of one officer and seventeen other ranks became the Australian Survey Corps with Captain C.V. Quinlan its Officer Commanding. Quinlan came from Toowoomba and had had considerable mapping experience in Africa and Malaya.

Lt Col R.F. Skitch

Australian military surveyors during World War I saw service in northern France and the Middle East although it wasn't until late in the war that a separate ANZAC survey unit was formed in France. Mapping the trench systems from aerial photography was the principal activity and gave rise to the early development of photogrammetry. Between the wars, 1918 to 1939, the fortunes of the Survey Corps drifted with the times, reverting to the Survey Section – Engineers (Permanent) in 1921 but regaining its Corps status some years later. Dedicated personnel continued topographical inch to the mile (1:63,360) mapping by plane table methods in South Australia, Victoria, New South Wales and south eastern Queensland. Quite extensive triangulation was undertaken in all of the eastern states. Technological advances were achieved in base line measurement and

Regrettably, no speaker was forthcoming to present the history of Australian military mapping at the "400 YEARS OF MAPPING AUSTRALIA" Conference

A brief history of RASC is presented here to rectify this shortcoming

photogrammetry. The overall strength of the Corps remained slight although started to build up with the onset of World War 2 (WW2).

With the outbreak of the war, survey sections were raised in each of the mainland States, becoming Companies with strengths of from 120 to 150 all ranks in each instance. Surveyors and draftsmen from government offices and private firms were called up and went into training camps, learning to be soldiers and military surveyors. The 2nd/1st Army Topographical Survey Company was raised as an AIF unit and shipped to the Middle East. It had a full mapping capability with a truck mounted lithographic printing press. Sections were deployed in direct support of military operations in Greece, Palestine and Lybia. Its Officer Commanding was Major Lawrence Fitzgerald who had enlisted in the Corps as a corporal in 1923 and was to become the Corps Director in 1942 holding that position until his retirement as a Brigadier in 1960. The 2/1st returned from the Middle East following the entrance of Japan into the war for deployment in New Guinea. In early 1942 a small section was raised in Port Moresby from local surveyors and engineers calling itself the New Guinea Survey Section. Augmented with personnel from Victoria it became the 8th Field Survey Section and remained on front line service for two years when it was demobilised and its members absorbed into other survey companies. A member of that remarkable unit whose name is associated with the Kokoda Track was Lieutenant Gerry Owers. In addition to the 2/1st, the 2nd, 3rd and 5th Field Survey Companies were also to see active service in New Guinea with the 5th continuing to Borneo, Labuan and Balikpapan. On the Australian mainland over the war years inch to the mile mapping took place in areas of strategic importance and especially along the Queensland coast. Many of these sheets were not published until after the war.

In 1942 a comprehensive cartographic and lithographic company (Land Headquarters Cartographic Company) was formed and after a brief time in Melbourne became based at Bendigo in Victoria, acquiring the mansion *'Fortuna'* once the home of George Lansell, the 'quartz king' of Bendigo. In post war years it became the Army Headquarters Survey Regiment, later the Army Survey Regiment, and continued to occupy *Fortuna* until the Corps' disbandment in 1996. It remains today the headquarters of the civilian defence establishment known as the 'Defence Imagery and Geospatial Organisation' (DIGO).

Fortuna - Bendigo

With the cessation of hostilities in August 1945 extensive demobilisation of survey personnel occurred with the overall Corps strength falling from near 1800 to about 180. Nevertheless, it was still of considerably greater strength than pre-war. Survey sections were employed on civil post-war reconstruction projects such as the Snowy River Project and the Spencers Gulf navigation channel. Survey sections were maintained in support of the Woomera Long Range Weapons Establishment and later at the atomic site of Marilinga. During the 1950s mapping surveys were carried out of New Britain and New Ireland with logistic support being provided by the US Army Mapping Service. These were long and arduous projects using the shore-ship method of triangulated traversing. This was the era before the advent of electronic distance measurement (EDM) and helicopter support.

In 1948 the Australian Survey Corps was granted the prefix 'Royal'. In the early 1950s the Corps reorganised into five permanent 'Command' Field Survey Sections, one in each mainland State. The Corps' principal activity through the remainder of the '50s and into the 60's was EDM traversing across the continent as part of the geophysical program to establish a central Australian Datum, an Australian Spheroid and an Australian Height Datum. At the same time a map series at a scale of 1:250,000 was commenced controlled by 4th order astronomical observations. The object was to provide complete map coverage of Australia at that scale and this was achieved in the late '60s. The program was coordinated by the National Mapping Council the members of which included the Director of the Division of National Mapping (Chair), the Director of Military Survey, the Naval Hydrographer and the Surveyors General from each State. All of those organisations participated to a greater or lesser extent.

The 1:250, 000 program gave way to the 1:100,000 topographical map series which in broad terms mapped a 300 km band inland from the coast of the continent. The Corps' allocated responsibility was largely north of the tropic of Capricorn. For strictly military purposes it also undertook mapping at 1:50,000 and 1:25,000 in certain locations.

In 1966 a 'troop' of 32 personnel was raised at Randwick NSW as a 'direct support' mapping unit. This was the 1st Topographical Survey Troop. In May of that year a detachment of the Troop commanded by Captain R.F. Skitch was deployed with the First Australian Task Force to South Vietnam. Based at Nui Dat the Detachment gave direct mapping support to military operations carried out by the Australian Forces in Phuoc Tuy Province. This included large scale mapping, map distribution and survey for artillery purposes. The unit remained there for the five year duration of that conflict with 12 months being the tour of duty for most personnel.

The Territory of Papua and New Guinea (TPNG) remained over a number of years from 1955 onwards a special responsibility of the Royal Australian Survey Corps and in 1963 the Corps embarked on a 1:100,000 mapping program. This was a most arduous undertaking made possible only by the advent of EDM, its airborne derivative 'Aerodist', laser terrain profile recording and the extensive use of helicopters. Aerial photography

was always difficult to achieve and by 1970 very little usable photography existed. In 1972 the Canberra bombers, looking for a role post Vietnam, were fitted with Wild RC 10 cameras and undertook aerial photography of Papua and New Guinea. An equatorial drought occurred in 1972, and most of Papua and New Guinea became cloud free. The Canberras achieved 85% cloud free photography in that year. In 1978 an atlas of 1:100,000 maps was formally presented to the government of the Independent State of Papua New Guinea.

A substantial Corps reorganisation took place in 1971 with each of the Command Field Survey Sections increased in strength and designated 'Squadrons'. A further squadron was raised and based at Poppendetta in Papua New Guinea, later at Wewak. Its principal task was field completion of the 1:100,000 series.

From 1970 to 1984 the Corps was involved in joint mapping operations in Indonesia as part of the Australian Defence Aid Program. Over that fourteen year period the Indonesian territories of West Kalimantan (Borneo), Sumatra, Irian Jaya (West Papua) and Maluku were air photographed by the RAAF, aero triangulated and in some cases, plotted. Map production was an Indonesian responsibility. From 1978 to 1994 extensive mapping support was given to the South West Pacific nations; Solomon Islands, Fiji, Tonga, Vanuatu, Kiribati and Cook islands.

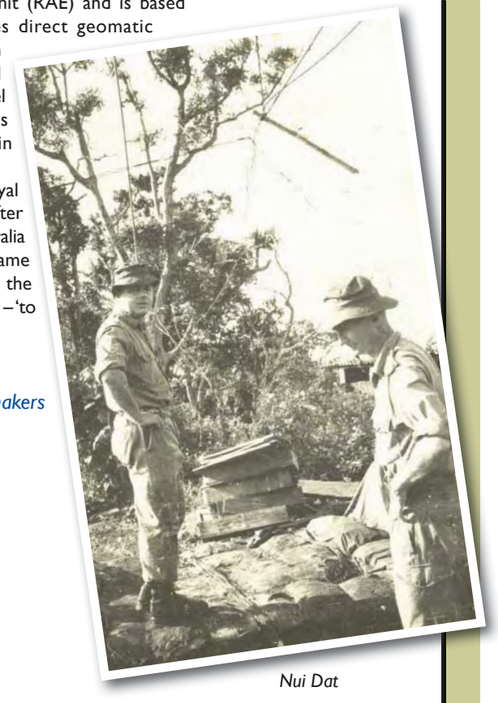
This brief history would be incomplete without further mention of both the Army Survey Regiment and the School of Military Survey. The former developed into a lead edge organisation in all aspects of map production. For eleven years from 1956 to 1967 the Topographic Squadron of the Regiment undertook extensive field operations both in Australia and the then territory of Papua and New Guinea. It was the principal unit of the Corps in the introduction of new field technology, notably electronic distance measurement (EDM) and its airborne derivative 'Aerodist' and airborne terrain profiling. Topographic Squadron withdrew from field operations in 1967 and was redesignated Air Survey Squadron with the principal role of analytical aerotriangulation and photogrammetric plotting, in 1974 moving into fully computer assisted mapping with 'Automap – 1' and its successors, the first mapping agency in Australia to do so. The Cartographic Squadron developed a range of cartographic techniques including scribing of manuscripts at production scale and terrain embossing to produce an accurate hill shade effect. In later years these manual processes were overtaken by computer processes. The Lithographic Squadron was responsible for the lithographic offset printing of all map products including aeronautical charts, hydrographic charts and all forms of standard mapping including the Joint Operational Graphics, Air and Ground versions.

During WW2 a number of survey schools were established to meet the exigencies of wartime training but soon after the war's end and the peacetime future of the Corps determined in 1947 the School of Military Survey was established at Balcombe on the Mornington Peninsula south of Melbourne. Major H.F. Eggling was appointed Chief Instructor. The School trained Corps personnel from first entry, the Basic Survey Course of 10 months duration, through technical promotion requirements to warrant rank as well as specialised courses in photogrammetry, field astronomy including Laplace astronomy and most new technical developments as they were introduced into the Corps. The products of the School were Topographic Surveyors and Draughtsmen (the latter included women) renamed Technician Surveyors and Technician Cartographers in 1971. In 1966 the School moved to a location east of Wodonga, the past immigration camp of Bonegilla where it remained until the demise of the Corps in 1996. The School of Military Survey was held in high regard throughout civilian mapping circles in Australia because of its intensely practical approach. At times civilian mapping agencies had their own junior staff attend courses at the School.

Fortuna March

As a result of reorganisation and the down-sizing of the Australian Defence Forces in the early '90s, the political decision was taken to civilianise as many military support activities as possible. The Royal Australian Survey Corps was disbanded in 1996. The 1st Topographical Survey Squadron was formed as an Engineer unit (RAE) and is based at Enoggera. It provides direct geomatic support to the 1st Division and has deployed small detachments of personnel to most of the overseas operations undertaken in recent years.

Thus in 1996 the Royal Australian Survey Corps, after 81 years of service to Australia in both war and peace came to an end. The motto of the Corps was *Videre Parare Est* – 'to see is to prepare'.



Nui Dat

Principal Reference:
Australia's Military Mapmakers
by C.D. Coulthard-Clark
published 2000,
Oxford University Press
ISBN 0 19 551343 6

United Nations/Zambia/ESA Regional Workshop on the Applications of Global Navigation Satellite System Technologies in Sub-Saharan Africa

As Chair of the ICA Commission on Mapping from Satellite Imagery, I assisted to the UN/ESA workshop hosted by the Ministry of Health of Zambia, in Lusaka from the 26th to the 30th June 2006. This commission activity took place as result of the MOU signed between the ICA and the United Nations Office for Outer Space Affair in 2005, which aims to increase the awareness of the use and applications of GNSS and other space technologies to support sustainable development in all its aspects: economical, environmental, asocial, technological, cultural and ethical.

This regional workshop addressed, inter alia, the space technology applications such as remote sensing, precision agriculture, aviation, transport and communications, e-learning, telehealth and landscape epidemiology. The presentations on behalf of the ICA and this Commission were on "Use of remote sensing and GNSS in precision agriculture" and "Current developments of remote sensing for mapping and monitoring land degradation at regional scale".

Since 2001, the programme of Space Applications of the Office of Outer Space Affairs of the United Nations (UNOOSA) has organised a series of regional workshops and international meetings to promote the use of GNSS. These workshops and meetings presented the status of existing and near-term GNSS systems and their augmentations and also presented examples of GNSS applications that support sustainable development and protect the environment.

With four thematic areas on basic space science; use and applications of Global Navigation Satellite Systems; natural resources management and environmental monitoring; satellite communications; space technology and disaster management, the programme of Space Applications proposes to 'enhance the understanding and subsequent use of space technology for peaceful purposes in general, and for national development, in particular, in response to expressed needs in different geographic regions of the world'. This mission has been largely implemented by means of conferences, seminars and workshops held worldwide since the creation of the programme, in 1971.

The UN/ESA/Zambia workshop was attended by 80 participants from 23 countries, with presentations focused on GNSS-based application areas, policies and strategies for promoting sustainable development, international initiatives and experiences on GNSS implementation and uses in agriculture and management of the environment, tele-health, landscape epidemiology, civil aviation and land transportation; and education and training. Most of the presentations related to agriculture and natural resource management dealt with the use of integrated space technologies (e.g. remote sensing and GNSS) assisted by GIS for surveying, mapping and monitoring aimed at improved decision making. A session on applications of GNSS included meteorology, application of satellite information in disaster management and emergency response in Malawi; uses and applications of GNSS technology in environmental and resources management in the Niger Delta; GPS applications for GIS purposes in Swaziland; applications of GNSS and remote sensing for environmental sustainability, and GNSS applications for mineral exploration in Zambia.

A special session to identify regional cooperation in applying GNSS technologies to the areas of agriculture management of environment, tele-health and landscape epidemiology, and civil aviation and land transportation was held on Wednesday afternoon. Issues and concerns of application, requirements of implementation, possibilities of success, mechanisms and resources for implementation were discussed. The session concluded with the identification of 4 main projects, namely on:

1) International cooperation and networking: legal framework, policy and strategy for the GNSS applications

2) Mapping, data access and sharing

3) Capacity building and education for: authorities/experts. Knowledge transfer to users and other and users (users: small scale farmers, etc).

4) Space technology application for tele health.

The project on capacity building proposes, amongst other things, the creation of an e-library, for framework of information access/sharing of educational and scientific materials in different areas of the geospatial sciences to African countries of the Sub-Saharan region. Datasets are stored at the country level (UNOOSA web portal). The contributor has the right to request a password (info access password protected). Members of the Mapping Sciences Institute interested in contributing on the creation of this e-library are encouraged to contact Ms Sharafat Gadimova (sharafat.gadimova@unvienna.org). The workshop concluded on Friday with a presentation of summary reports of the sessions. Copy of the presentations can be accessed at http://www.unoosa.org/oosa/SAP/act2006/zambia/presentations.html

Graciela Metternicht
Chair (acting), ICA Commission on Mapping from Satellite Imagery

400 Years
of Mapping Australia Conference, Darwin

MSIA held the 400 Years of Mapping Australia Conference in Darwin from 23 to 25 August as an event under the Australia on the Map 1606-2006 commemoration.

Registrations totalled 170 including 42 accompanying persons and comprised a good mix of people with interests in cartography, hydrography, surveying and history. About two thirds of delegates were visitors to Darwin.

The conference was opened by His Honour Ted Egan AO, Administrator of the Northern Territory who is Patron for the Northern Territory of the Australia on the Map 1606-2006 commemoration.

Dorothy Prescott presented the introductory paper and set a high standard for the 18 papers that followed. The overall standard of presentation was very high and the speakers proved to be entertaining as well as informative. This resulted in all sessions being well attended despite the number of other things that visitors to Darwin can do during the ideal weather of the Dry Season. The abstracts and biographies of authors can be found at www.mappingsciences.org.au and a CD containing the papers received will be produced in November.

The welcome reception was hosted in Parliament House by the Honourable Claire Martin MLA, Chief Minister of the Northern Territory. At this function the Chief Minister also opened an exhibition on 400 Years of Surveying and Mapping the Northern Territory organised by the Northern Territory Library, the NT Department of Planning and Infrastructure and the NT Division of the Institution of Surveyors. The exhibition contained 122 items including maps, photographs and surveying & drafting equipment that were arranged to give a chronology of the history of the Northern Territory from pre European times to the present day. Other social functions included a sunset cruise on Darwin Harbour, a visit to the Mindil Beach sunset markets and the conference dinner. The after dinner speaker was the Honourable Gary Nairn MP, Special Minister for State, Commonwealth of Australia, and a former Northern Territory surveyor and MSIA member.

Claire Martin, Chief Minister of the Northern Territory with Trevor Menzies, Conference Convenor

As an initiative of Robert Clancy from the Australian Map Circle, a discussion was held in the closing session on the merit of forming a group to focus on issues relating to historical cartography in Australia. The discussion was widened to include surveying and hydrography given that the audience included many members from organisations with an interest these areas. After good discussion the motion contained on the following page was adopted by the conference:

The organisers were delighted with the success of the conference as evidenced by the better than expected attendance and good feedback from delegates. The interest in the history of Australian cartography is high and the MSIA intends to incorporate historical content into future conferences, starting with the next one planned for Melbourne in May 2007.

". . interest in the history of Australian cartography is high and the MSIA intends to incorporate historical content into future conferences . ."

Trevor Menzies
Conference Convener

Conference Presentations

The Discovery and Mapping of Australia's Coasts: the Contribution of the Dutch, French and British Explorer-Hydrographers **- Dorothy F. Prescott**

The Jagiellonian Globe, Utopia and Australia **- Robert J King**

Cartographers of the Low Countries in the Age of Discovery **- Steve Philips**

I call the whole island Australia **- Lindsay J Perry**

Filling in a Coastline **- Robert Clancy**

A Tale of Two Maps – NSW in the 1830's by Mitchell and Dixon: Perfection, Probity and Piracy! **- John Brock**

The Development and Survey of the Northern Territory / Queensland Border **- William S. Kitson**

The Ill-fated Escape Cliffs (Northern Territory) Survey Expedition 1864-66 **- Earl James**

A Unique Insight into National Mapping's Programs **- Carl McMaster and Paul Wise**

The National Geodetic Survey of Australia **- John Manning**

History of the Australian Hydrographic Service, Royal Australian Navy **- Kevin Slade**

Venture and Adventure: A Private Mapping Company in Australia 1959 to 2006 - the AAM Story **- Peter M. Byrne**

Rocks, Paper, Slivers: Mapping Australia's Geology **- Jon Stirzaker**

Gravity Mapping in Australia **- Miervaldis Balodis**

The Status of National Mapping: 400 Years On **- Ian O'Donnell**

Hydrographic Charting: The Next 400 Years **- Brian O'Neil**

Enhancing Access to Australia's Rare Maps: the National Library Online Historical Map Digitisation Project **- Martin Woods**

Tools of Surveying and Mapping in the National Historical Collection **- Denis Shephard**

The Search for HMAS Sydney **- Ted Graham**

400 Years
of Mapping Australia
Conference - August 2006


















Conference Resolution

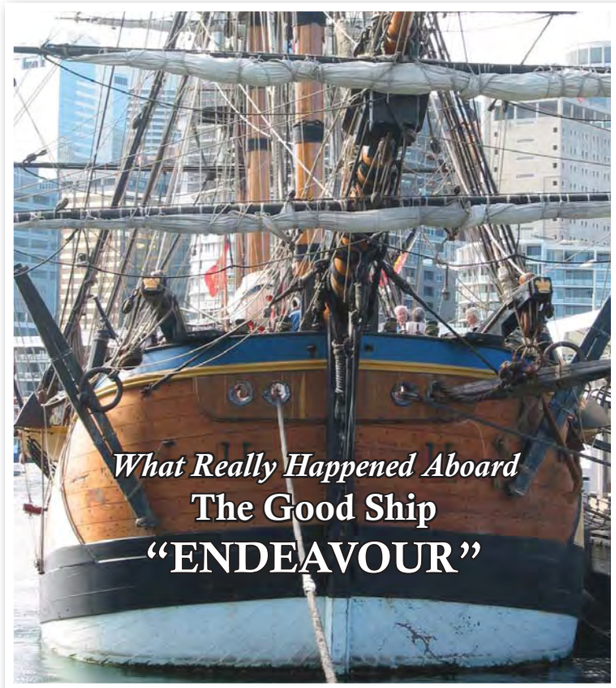
Recognising:

- The importance and extent of the experiences and achievements of Australian explorers, surveyors, hydrographers and cartographers;
- the level of interest within and beyond the spatial sciences community as demonstrated at this MSIA 400 Years of Mapping Australia event (the Conference);
- the inestimable value of heritage maps, plans, artefacts and journals to future generations;
- the fragility of all records, some relatively recent, and the reality of lost records being lost forever;
- not overlooking the thought that a community unaware of its heritage is unlikely to be confident of its journey; and
- further recognising that interest in mapping heritage extends to groups beyond the surveying / mapping professional societies

Those present at the Conference plenary session resolve that:

1. Steps be taken to create a permanent organisation to take up the issues raised here.
2. Those listed below to consider options and consult with interested organisations to achieve these aims and report their recommendations to all interested bodies:
   Ian Batley *(member, Spatial Sciences Institute)*, **Robert Clancy** *(member, Australian Map Circle)*, **Jon Fairall** *(Editor, Position Magazine)*, **Trevor Menzies** *(member, Mapping Sciences Institute, Australia, and Convener)*, **Andrew Porteous** *(member, Institution of Surveyors, Australia)*, **Kevin Slade** *(member, Australasian Hydrographic Society)*, **Rhondda Tomlinson** *(interested member of the community)*

Motion proposed by Peter Byrne HFSSI, HonFIS(Aust), seconded by John Manning FMSIA, FIAG, MIS(Aust), carried by the conference unanimously



HM Bark Endeavour replica moored at the Australian National Maritime Museum, Sydney

"The aim of this article is to give a more human aspect to part of Cook's first voyage, and bring a little more perspective to a great Australian myth"

". . the daily grog rations for the seamen were four to five pints of beer, or a half pint of spirit, or a bottle of wine per day"

The aim of this article is to give a more human aspect to part of Cook's first voyage, and bring a little more perspective to a great Australian myth. Myth, in this instance, being taken to convey a true account of how natural phenomena, social customs etc, affected the outcome. This article means no disrespect to Cook, nor does it denigrate his achievements. He was, perhaps, the greatest modern navigator. But this was, after all, a voyage by men in a ship, and therefore there is a human side to this voyage that you may find just as interesting as the pure historical picture.

The facts that will be given are verifiable, even if the inferences drawn from these facts are not. At least they will be provocative and partly true. Also, we should have more understanding of the voyage than the pure historical facts, because, however false, Cook is regarded as the "Father of our nation". He could also most probably be looked on as the first "Little Aussie Battler". Within this concept we have Cook as the founder, the father and the discoverer of Australia. If we wish to be pedantic, however, it was in fact his First Lieutenant, Lieutenant Hicks, who first sighted the east coast of Australia. It was at a point about which there appears to be some contention, but it was almost certainly not at the point called Point Hicks.

It must be pointed out that the aim of Cook's voyage was not to come to New Holland. He only headed towards New Holland after his failure to discover a great southern continent, which was philosophically thought to exist in the southern oceans. In fact the only claim that Cook may have towards Australia, may be that he re-charted the eastern seaboards. Re-charted, because Portuguese charts were apparently in the library of Henry the Eighth. At this point we have some early indications of the development of the Australian character….. in that to choose a hero we cast aside the educated gentleman adventurer for the somewhat dour son of an English farm labourer made good, i.e. James Cook. Perhaps this represents the start of the belief in the "Little Aussie Battler", or perhaps it is the beginning of the entrenched, almost genetic Australian knowledge that the cultured and gentlemanly, are only a mob of poofs anyway.

The Ship

The ship was a cat-built whitby collier…"The Earl of Pembroke", purchased and re-commissioned as "H.M.Bark Endeavour". It was a shallow draft barge, like a barrel cut lengthwise. Approximately 100 feet in length by 30 feet in maximum width. This tub shape was ideally suited to the amount of stores to be carried on the voyage. All up the cost, including re-fitting, was 6,235 pounds, six and threepence. This, of course, excluded GST, registration and insurance, as it was government owned. This today, would be an absolutely enormous amount of Australian dollars.

The load carried was as follows…..

Weapons: 10 four-pounders, 12 swivel guns, powder and shot.

Personnel: 94 men

Stores: Trading goods, spare sails, ropes, spare masts, full carpentry and blacksmith shops.

Livestock consisting of 17 sheep, 5 fowl, 4 ducks, a boar, sow and piglets, 2 dogs and a goat.

The dogs belonged to Joseph Banks, who was the leader of the scientific side of the expedition and, as a typical Englishman, he could not go anywhere without his dogs. He could leave his woman behind for two years, but not his dogs. The goat is also interesting, in that this goat had just come back from circumnavigating the globe on Wallis's ship, and was now put on board the Endeavour for a similar expedition. The reason for having the goat was to provide milk for the officer's coffee.

Further provisions were….

30 tons of water, 4000 pieces of beef, 6000 pieces of pork, 35000 lbs of bread, 11500 lbs flour, 7860 lbs of sauerkraut, 1500 lbs sugar, 2600 lbs soup, 800 lbs suet, 2500 lbs raisins, 1600 lbs mustard seed, 20 bushels of salt, 35 bushels of wheat, 187 bushels of peas, 10 bushels of oatmeal, 80 bushels of malt.

But now after all that we come to the most interesting of the stores…..One month's beer rations, being 1200 gals, and 11 month's spirit rations, being 1800 gals. Cook had also managed to get hold of 100 gals of ararak, which is understood to be an almost pure spirit, not unlike overproof vodka.

It must be realised that the British navy in those days was nothing like the stainless steel temperance union of today, in that the daily grog rations for the seamen were four to five pints of beer, or a half pint of spirit, or a bottle of wine per day. If they missed out on these rations because of inclement weather or other circumstances, they did not forego such rations, but rather they jackpotted. This then sets the scene for the two year voyage. A tub with a total deck space of around 700 square metres, or the size of an average suburban building block, with all these stores and ninety- four men confined to it for two years. Probably the only solace and privacy could be found in the bottle so liberally provided by His Majesty.Although some people say they only drink to make other people more interesting, it is felt in this situation that the men only drank to make people more tolerable.

The Men

As there is not enough space to deal with all of them, a select few will be selected in the hope that this will suffice to show the calibre of the make up of the crew. You have all heard the story that too many cooks spoil the broth…. well it was a little like that on board the Endeavour……There was James Cook, whom you think you know, but you don't. because he was servant to the First Officer. There was Nathaniel Cook who was the carpenter's servant. Then there was, of course, First Lieutenant Cook, called the second because there was another First Lieutenant James Cook in the navy at that time. Then we come across the fourth cook, named John Thompson. He was the one- armed ship's cook given to replace the one-legged cook, whom Cook was first allocated, and about whom Cook complained. On the receipt of Cook's complaint about this one-legged cook, the admiralty then gave him the one-armed cook. When Cook complained about this cook, he was told in typical bureaucratic manner that there not being another berth for this man, he was stuck with him.

Lieutenant James Cook was first apprenticed to a haberdasher on the east coast of England, but after eighteen months managed to transfer his apprenticeship to becoming a sailor. While apprenticed to the Walker Brothers, he had experience on similar ships to the Endeavour, and rose through the ranks to become a Ship's Master. When he was offered captaincy in the Merchant fleet, he declined and joined the Royal Navy. Within a few months he had risen to become a Master's Mate. His early experiences covered the blockade of the French coast and the taking of a prize. He was then transferred to Canada where he charted the St Lawrence seaway and the Newfoundland region and fishing banks. It was at this time that he was transferred and commissioned to take over the Endeavour voyage.

The other two officers, Hicks as First Officer and Gore as Second Officer, were also both commissioned from the ranks for this trip. John Gore had just come back from circumnavigating the globe with Wallis. He was said to be a great

"Lieutenant James Cook was first apprenticed to a haberdasher on the east coast of England, but after eighteen months managed to transfer his apprenticeship to becoming a sailor"

18th Century Mess Deck

"It is amazing to realise that Joseph Banks spent in excess of 10,000 pounds of his own money on preparations for the scientific side"

sportsman and adventurer, but it was felt that he may have had an addiction to goat's milk coffee. Isaac Smith transferred from the "Grenville" in Newfoundland with Cook to the Endeavour. He was an assistant surveyor to Cook and was Mrs Cook's cousin. When Isaac Smith was superannuated from the service in 1807, it was as a Rear Admiral. Isaac Manley was also a man of great ability, who joined the crew as servant to the Ship's Master. He was promoted by Cook in 1771 to become a midshipman. When he died in 1837, being the last survivor of the voyage, he was Admiral of the Red Fleet.

Robert Molneux was a Ship's Master at twenty-two and dead at twenty-five. He was, as Cook said in his journal… *A young man of good parts, but unfortunately given up to extravagancy and in temperance, which brought upon disorders which put a period to his life.* Richard Pickersgill, who took over as Master on Molneux's , was only about twenty-one. He was such a good seaman that he was commissioned from the ranks. In 1777 after various problems, he was court martialled for drunkenness and other irregularities, following which he took command of a privateer. He later, being the worse for wear, slipped on the Thames steps, fell into the river and was drowned. He was but thirty years of age.

Joseph Banks Cabin

Joseph Banks was a serious young English gentleman of vast fortune who led the scientific side of the expedition for the Royal Society. It is amazing to realise that Joseph Banks spent in excess of 10,000 pounds of his own money on preparations for the scientific side. Remember, this was the eccentric Englishman who took his dogs with him and left his woman at home. Two other men of interest were on the ship's manifest, but did not exist. At this time the Admiralty had decreed that for every seventy-five members of a ship's company, or part thereof above seventy-five, a seaman should be placed on the manifest and his wages paid into the sailor's widow's fund. Obviously, an early example of "Social Security". If this was just your average group of jolly jacktars, then it no wonder that the Royal Navy, at this time, was in the ascendancy.

Prior to the Voyage…

We now cover a number of interesting parallels with contemporary Australian life. Whilst the Endeavour was being refurbished in dry dock at Debtford, things were delayed for three weeks by a wharfie's strike. This was a long hot summer and there were ructions on the wharf with seamen and labourers walking off the job because of the rising price of food, with no rise in wages. Cook's secret orders, signed by the Admiralty, were one week prior to departure, accurately speculated upon in the London Gazette. Isn't it amazing what could fall off the back of a dray in those days. However, the newspapers, as usual, made a typographical error by saying that there were only 5 fowl on board. Cook's journal reports that on 1st September, three to four dozen poultry were washed overboard. On 16th August , 1768, the men having been on board for a while getting things ready, and, therefore having been drinking, the beer supplies were topped up for sailing, and another 604 gallons of rum were taken on board. The men were then paid a small advance and, as an anticlimax, a gale delayed the sailing for another week. After another top up of water and beer, on the 26th August, 1768, the sails were unfurled and the voyage actually began.

The Voyage

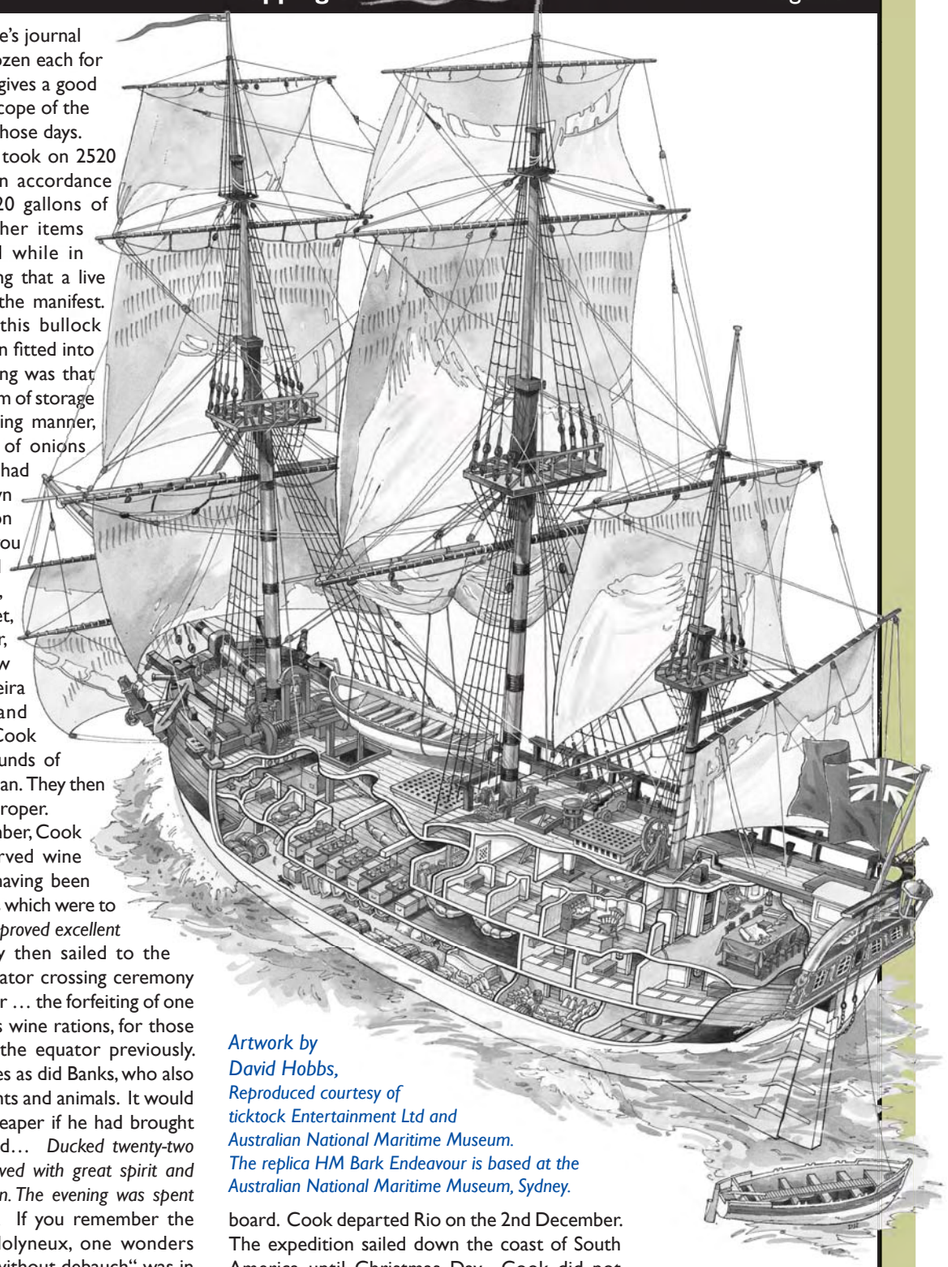
At this time, I suppose, everyone thought that Cook was bound for the South Seas. But before heading off for the scientific part of the expedition, certain other of his secret orders had to be followed. These orders were in part…"*You are to put to sea with a first opportunity of wind and weather and make the best of your way to the island of Madeira, and take on board such a quantity of wine as you can conveniently stow for the use of the bark's company.* This he subsequently did. On the 13th September, Cook anchored at Madeira. While there, the Masters Mate caught his foot in the anchor rope and was pulled down and drowned. Speculation was that he was suffering a hangover at the time. Two men also received 12 lashes for refusing to eat their fresh meat, which makes an interesting concept

of dietary control. Gore's journal merely states..."One dozen each for mutiny". This certainly gives a good insight into the broad scope of the definition of mutiny in those days.

Before leaving they took on 2520 gallons of water, and in accordance with their orders, 3020 gallons of Madeira wine. Two other items of interest transpired while in Madeira. The first being that a live bullock was added to the manifest. One wonders where this bullock could have possibly been fitted into the ship. The other thing was that so as to use the maximum of storage space, Cook in a cunning manner, issued twenty pounds of onions to each man and these had to be stored in their own sea lockers, probably on the sleeping deck. Can you imagine the cramped between deck space, something under 5 feet, with the effects of beer, sauerkraut and raw onions ? They left Madeira on 19th September, and on the day of leaving, Cook issued a further 10 pounds of raw onions to each seaman. They then set out on the voyage proper.

On the 27th September, Cook noted that he then served wine to the men, the beer having been finished, all but two casks which were to be kept….."*As it had all proved excellent to the last cask".* They then sailed to the equator where the equator crossing ceremony meant a triple ducking or … the forfeiting of one bottle of rum, or 4 days wine rations, for those who had not crossed the equator previously. Cook had to pay his dues as did Banks, who also had to pay for his servants and animals. It would obviously have been cheaper if he had brought his wife. Molyneux said… *Ducked twenty-two of the people who behaved with great spirit and gave universal satisfaction. The evening was spent merrily without debauch.* If you remember the previous quotes on Molyneux, one wonders what his definition of "without debauch" was in light of the fact that he had given himself up to intemperance.

Rio de Janiero was entered on 13th November. History notes some diplomatic upsets in this port. But other more interesting things did occur. One John Thurman received 12 lashes as did three other seamen. The first received his for desertion and the second for using abusive language to the officer of the watch. The third copped it for not doing his duty in punishing the other two. While in Rio de Janiero, 420 gallons of rum, water and other necessities were taken on



Artwork by David Hobbs, Reproduced courtesy of ticktock Entertainment Ltd and Australian National Maritime Museum. The replica HM Bark Endeavour is based at the Australian National Maritime Museum, Sydney.

board. Cook departed Rio on the 2nd December. The expedition sailed down the coast of South America until Christmas Day. Cook did not write anything of consequence on that day, but on December 26th wrote …. *Yesterday , being Christmas Day, the people were none of the soberest.* Joseph Banks, however, wrote…. *Christmas Day – all good christians, that is to say all hands got abominably drunk so that at night there was scarce a sober man in the ship. Wind, thank God, was moderate or the Lord knows what would have become of us.*

They then sailed to Tierra del Fuego on the tip of South America. Here on a botanical expedition, mishaps combined, with a temperature drop and snow storm, to cause the death by exposure of

"Christmas Day – all good christians, that is to say all hands got abominably drunk so that at night there was scarce a sober man in the ship. Wind, thank God, was moderate . . "

"His method was that he had it served to the officers, and when the men felt they had been unfairly treated and demanded it, he made it available to the men"

Bank's two negro servants. This was after they had consumed the entire party's grog rations in sub-zero temperature, sitting out in the open. The reason they were in this position, was that they were looking after one of the expedition who had had an epileptic fit, while the others moved on to look for cover. They left South America on the 26th March, 1769. On the 13th April, Cook noted that the sick list was small, and that there was no scurvy present amongst the men. At this time he also noted in his journal that he felt that the serving of sauerkraut was partly responsible for this lack of scurvy. He then went on to describe how he got the men to eat sauerkraut. His method was that he had it served to the officers, and when the men felt they had been unfairly treated and demanded it, he made it available to the men. Within three days he had to ration the quantities they were given.

The expedition then sailed on to Tahiti where four months was spent, during which various scientific works were carried out. While in Tahiti Cook noted that due to the liberal favours of the natives, VD had spread. Twenty-four seamen and nine out of eleven marines showed signs of the disease. He went on to say... *I have the satisfaction of knowing that the natives all agree that we did not bring it here.* Therefore, it was either the Frenchman, Bougainville, or the Englishman, Wallis, who brought the disease to the country about 18 months prior. One can imagine how each country leapt to accept the responsibility. I, therefore, think we can infer, that then like now…. condoms are necessary for safe sex.

While in Tahiti, on the 28th August 1769. John Randon, a Bosun's mate died of an overdose of alcohol. He was found the night before somewhat comatose from alcohol, as was his custom, and was put to bed without any second thought. However, the next morning he was found speechless and past recovery. Bank's journal cast some light on his shipmates…*One of the seamen, Randon by name, was this morn found so drunk that there was scarce any signs of life, and in about an hour he expired. Where he could have got his liquor is a mystery, which however, nobody seems to inquire into. I have, more than once, had occasion to congratulate myself on my prudence in not taking wine on board in Madeira. As I believe, I may safely say, that there is not a cask on board the ship which has not been tapped, to the great dissatisfaction of the owners, who in general, have had comfort to find the gentlemen honest enough not to have filled up with salt water. In some cases, however, this was not a consideration of much comfort, as many of the casks were two thirds empty and some quite.*

Things were quiet for some months whilst the expedition cruised around the southern seas and charted New Zealand. While in New Zealand, three men were accused of leaving their shore duty to dig up potatoes in the native plantation, and were ordered one dozen lashes each. One of them complained and was sent back to the ship for confinement, whilst the other two received their lashes. The man who complained felt that he had been harshly dealt with by merely following Cook's instructions to get fresh food wherever it was available. He was then given a half dozen lashes and put back to work. His sense of justice, however, must have rankled, because on return to England he brought an action against Cook. This was defended by a solicitor for the Admiralty, and the action did not get far. On 2nd December, three men were each given 12 lashes for stealing between ten and twelve gallons of rum, the whole of the contents of the spirit cask on the quarter deck. Their allowance was stopped until it amounted to the quantity stolen. New Zealand was then left behind and Cook sailed towards New Holland, where on Thursday 19th April Cook says…. "Lieutenant Hicks was the first to discover this land". They then sailed on to Botany Bay where, on 1st May 1770, Taubey Sutherland departed this life and his body was buried on the shore at their watering , which Cook says… ."*Occasion my calling the south point of this bay after his name…. Sutherland Point".* Seaman Sutherland died of consumption.

Mess deck with tables set

This brings this part of the expedition to a conclusion. Of the 94 men who set out on this expedition, 56 returned. … 3 drowned, 2 were frozen, and the remainder died of various causes, a lot of which were probably alcohol related. We could draw parallels with contemporary behaviour as follows ...This was an expedition that was delayed by a wharfie's strike. The aim of the expedition was, according to leaked secret documents, to find a great southern continent, which did not exist. The tub of a boat was loaded to the gunnels with grog, a circumnavigating goat, and men who were a brave, but boozy mob of womanising grafters, who fraternised with the natives thus contracting V.D. which they blamed on the French. All were fearlessly lead by the first "Little Aussie Battler", who made the most of not finding the great southern continent by charting the east coast of New Holland and then apologising to the Admiralty because the land was such useless rubbish.

Great cabin

This article might seem to be an advertisement for teetotal abstinence. You may be assured it was not meant to be that way. After all, the vast majority of people are quite moderate and believe in tolerating all things in moderation… even sobriety.

"Of the 94 men who set out on this expedition, 56 returned"

Adapted by Alan Armitage from a presentation given by Philip Benjamin at the Silver Jubilee Dinner of the Queensland Division of the AIC, in May 1987 and afterwards presented in "Cartography"Vol 17 Issue 1 - June 1988.

Special thanks to Shirani Aththas, Publicity Coordinator at the Australian National Maritime Museum for kindly supplying the images of the replica of HM Bark Endeavour..

The ICA Commission on Education and Training

On-line BSc Project

"Using a staged progression through free on-line modules a participant can use this program for professional development . ."

The International Cartographic Association (ICA) through the Commission on Education and Training is introducing an Internet Cartographic Education program open to registered individuals who do not have access to existing cartographic programs.

This is the culmination of significant effort by many members of the Commission on Education and Training over many years to bring the Secretary General of the ICA, Professor Ferjan Ormeling's vision of such a program to fruition.

The program is aimed at encouraging individuals from around the world to be trained and educated in the mapping sciences, thus enhancing their ability to provide an efficient and effective service to their country, community and employer.

Using a staged progression through free on-line modules a participant can use this program for professional development or they can undertake the assessment tasks and receive a certificate of competence for each module. Once the assessment for a designated set of modules has been completed successfully the individual may apply for entry into existing Bachelor of Science (BSc) programs available from ICA accredited providers.

This CET program draws on information from a number of sources and the key to the success of the program is to develop assessment tasks and to have learning outcomes that have a common format and feel for all the learning modules. An initial set of learning modules is being assembled under the following topic areas; Definitions, Geometry and databases, Design, Map types, Production and Output.

The project is evolving and those involved in its creation are benefiting greatly from the experience and it is envisaged that this approach to learning will become more sophisticated as the technology allows for better global communication for the growing number of isolated students who will benefit from this initiative.

For more information or offers of assistance contact:

David Fraser
Education and Training Program Manager
MAPPING SCIENCES INSTITUTE, AUSTRALIA
Email: **david.fraser@rmit.edu.au**
ICA CET webpage: **http://lazarus.elte.hu/cet/**

New Fellow Dr. David Fraser

Congratulations to David Fraser (pictured) who was elevated to Fellow status at the MSIA National Executive Meeting held at Darwin in August.

Dr David Fraser has contributed to the MSIA, and the AIC over many years at both national and international levels. His contributions have provided the Institute with services in a professional and enthusiastic manner. He joined the AIC in 1979 and has held the positions of Committee member, Vice President and President of the AIC Vic. Division. He was a National Councillor, National Education and Training Convenor and member of the Organising Committee for the Mapping Sciences 2002 conference held in Melbourne. David is currently a member of the MSIA Victoria/Tasmania Division management group.

On the international scene David represents the MSIA as a member of the International Cartographic Association's Education & Training Commission, where he is currently Vice-Chair. He was a corresponding member of the International Cartographic Association's Standing Commission on Map Production Technology

Dr. Fraser is currently and Senior Lecturer Director of Research Programs (Geospatial) in the School of Mathematical

and Geospatial Sciences at RMIT University.

His areas of expertise are the application of the mapping sciences to agriculture and environmental database management.

".. and having writ, moves on"

We greeted the claim with frank disbelief: Bill Wegner, as guide to a bunch of visiting schoolboys, proudly produced the new Stock Route Map of Queensland, and told us that all the lettering was done by hand. It seemed incredible then, and amazes me even now: because George Brown's skill was not unique. The upper echelon of draftsmen at the Survey Office Queensland could match his master work, and the State Archives is stacked with lithographs which prove the point.

Officially they were Survey Draftsmen – generations of blokes (and just a few women) who made and maintained the cadastral map cover of the State, and any ancillary map work required in land administration. They went to their graves probably unaware that in modern terms they were Cartographers. That designation was to await the move for professional recognition post-WWII. Not to be confused with the www. which within a few decades was to create explosions of a different sort.

In this 400th year of the First European Footfall on mainland Australia we've had plenty of opportunity to admire the lettering of antique maps and charts. In a profusion of swash lines and cartouches, sea monsters and wind-boys, there is evidence of engraving skill which defies imagination – and probably wasn't even well paid. One slip of the burin and your error had to be hammered out. To add to the challenge, the whole work was mirror-image to produce right-reading prints.

We know that copper engraving was flexible enough to allow revision, plug-in artwork, and superb hairlines and hachure. The Brits kept their Hydrographers at it till 1956 before yielding to the new chart specification. The 'Parkinson Papers' – botanical art from Cook's 1770 expedition, were engraved at huge expense to Banks, and infrequently printed until a collectors' issue in 1988 produced *coloured* linework, painted directly into the plates. Alecto Historical Editions did the job for the British Museum.

It's a geographic joke, or scandal, that plates were often re-used – and re-used – without revision, perpetuating misinformation for decades. The Survey Office had a slightly better record, but posterity (and the original authors) paid a heavy price. Lesser breeds of penmen had responsibility for updating the works of the masters, and the results were often – unfortunate. Given the later trend to revisions by photo-set type, mint condition originals by the Browns, Skeppers, Glovers, McGaws, Sinclairs, Craigs et al of this world would be rare indeed.

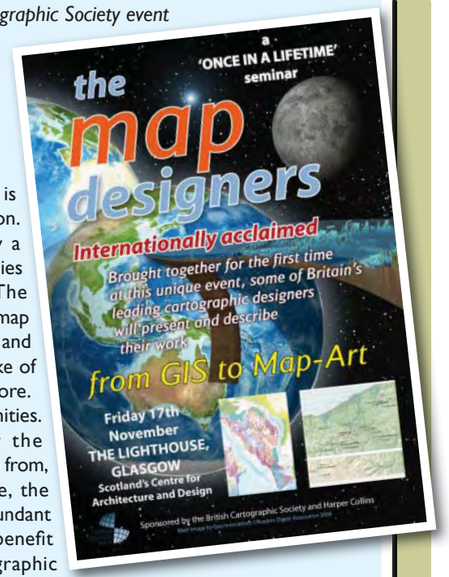
Penmanship was the hallmark of a century of cartographers, but with the emergence of scribed lines and photomechanical lettering a clearer perception developed. Cartography is about communication of location-specific information, and graphic design skills, once instinctive, are structured and sophisticated. This is the new centre of gravity for cartographic excellence – design which enables graphics to give focus to the plethora of geographic information which characterises mapping science now, and into the future.

Les Isdale

Announcing a new British Cartographic Society event

THE MAP DESIGNERS

November 17th, Glasgow



The world of Cartography is changing beyond all recognition. It is no longer dominated by a few specialists in major companies or national organisations. The explosion of non-cartographic map makers has brought a vibrancy and freshness to the subject, the like of which has never been seen before.

This presents two opportunities. Firstly an opportunity for the cartographic profession to learn from, and hopefully to incorporate, the graphic and artistic skills so abundant in other disciplines; and to benefit from the contribution Geographic Information Systems (GIS) has made to the industry. Secondly, there is an opportunity for the cartographic profession to explain some of the principles cartographers use when making maps. Cartographers have not been making maps for over 5000 years without learning a thing or two in the process. And yet for all the skills these diverse groups have brought to bear on map making, from GIS to map-Art, there remains one crucial problem. Most people can't read the maps they produce.

For the first time in the UK, and probably worldwide, this seminar will bring together cartographic designers, and designers from the world of media and GIS, to discuss how to make maps effective, exciting, irresistible and ...readable.

Anyone who commissions maps, or who is involved in the making of maps, whether from GIS data of the imagination of the artist will be welcome at 'The Map Designers' seminar. The seminar is designed for architects, surveyors, tourism, foresters, utilities, earth scientists, cartographers, graphic artists, and government; in fact every branch of society that uses or creates maps.

"The explosion of non-cartographic map makers has brought a vibrancy and freshness to the subject, the like of which has never been seen before"

More Information at:
www.cartography.org.uk

Editors Note:

How refreshing to see such a wonderful initiative. Alan Collinson and his enthusiastic BSC team are to be congratulated for their practical foresight and multi-disciplinary approach. MSIA will keep in touch with the view to conducting a similar event in Australia - volunteers and suggestions please.

Mapping Sciences Institute, Australia

www.mappingsciences.org.au

National Secretary: ***msiau@gil.com.au*** - GPO Box 1817, Brisbane, Queensland, 4001, Australia

"The mapping sciences are those disciplines that deal with the acquisition, management and communication of geospatial information. The Mapping Sciences Institute, Australia promotes the theory, practice and understanding of all facets of the mapping sciences".

National Office-Bearers

President - Peter Shaw [WA], **President-elect -** Trevor Menzies [NT]

Executive Chair - Ron Furness [NSW], **Past President** - John McCormack [Q]

Secretary - Keith Smith [Q] **Treasurer** - Alan Armitage [Q]

Councillors - David Adams & William Cartwright **Victoria/Tasmania**

Colin Mitford & Michael Turner **New South Wales**

Greg Heron & Trevor Menzies **Northern Territory**

Adam Ladhams and Alan Unkles **Queensland**

Graeme Wright **Western Australia**

Publications

The journal *"SPATIAL SCIENCE"* is published in June and December in cooperation with the Spatial Sciences Institute. The Editor-in-Chief is Dr. Graeme Wright [WA].

"MAPPING SCIENCES NATIONAL" is a newsletter issued three times a year.

Editor is Greg Heron [NT] ***gph@octa4.net.au***

Divisional Addresses

New South Wales: GPO BOX 4365, SYDNEY 2001

Bathurst Group: PO BOX 370 BATHURST 2795

Northern Territory: GPO BOX 3693 DARWIN 0801

Queensland: GPO BOX 1817, BRISBANE 4001

Victoria/Tasmania: GPO BOX 1155K MELBOURNE 3001

Western Australia: GPO BOX H592 PERTH 6001

Members in the **Australian Capital City** and **South Australia** are administered by the National Administration Group – MSIA, GPO BOX 1817, BRISBANE 4001.

Contact: John McCormack - ***johnmccormack@netspace.net.au***

International Affiliation

MSIA is affiliated with the International Cartographic Association [www.icaci.org]. Dr. William Cartwight is a Vice President and Dr. Graciela Metternicht is the editor of "ICA News".

ICA Commission participants:

David Fraser **Education**; Dorothy Prescott **History**; Abbas Rajabifard **Standards**; Ron Furness **Marine Cartography**; Graciela Metternicht *Chair (acting)* **Mapping from Satellite Imagery;** William Cartwright **Geographic Visualisation & Virtual Landscapes** and **Maps & the Internet**

ORDER FORM

Post To:
FACSIMILE MAPS AND CHARTS
MAPPING SCIENCES INSTITUTE, AUSTRALIA
GPO BOX 1817
BRISBANE, QLD 4001, AUSTRALIA

Please supply the following facsimile maps:

- ❑ No.1 New Holland, 1743 @ $29.50 each _____
- ❑ No.4 Costa Australe, 1646 @ $29.50 each _____
- ❑ No.6 Tasman's Voyage, 1726 @ $29.50 each _____

Add $5 if you are NOT an MSIA member _____

Additional $5 for overseas postage _____

Total amount enclosed
(cheque/money order payable to MSIA) AUD$ _____

PURCHASER DETAILS

Name: .....

Address: .....

..... Postcode: .....

Contact telephone: ..... Fax: .....

Email: .....

ABN 53 004 301 811

ACN 004 301 811

www.mappingsciences.org.au