



In depth Spring 2007

New horizon: AWD Build Phase begins

Building and maintaining Australia's frontline naval defence capabilities

**ASC**

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## Managing Director's Report



Recently I gave a presentation at the Committee for Economic Development of Australia's Workforce Development Conference which outlined the challenges and opportunities ASC faces in sourcing and building a skilled workforce for a major program.

The specific major program, of course, is the Air Warfare Destroyer (AWD) Program.

Very broadly, in our role as shipbuilder we expect to almost double our current workforce of around 1,100 people to support our AWD activities. Building the AWDs to schedule will become a near impossible task if we are unable to recruit and train the right people at the right time.

There are many challenges which we face in our recruitment quest.

These include the current strength of the Australian economy, the Australian defence industry expanding to keep pace with an increasing defence budget, the renaissance of the resources sector in South Australia and the continuing boom in Western Australia.

Then there is the nation-wide 'skills shortage' often reported in our media, Australia's ageing workforce and the demand for skilled labour across the globe. We cannot sit idly by and expect prospective employees to come to us, although the high profile of ASC and the AWD Program will ensure that we do get our fair share of applicants.

The AWD Program has its own natural momentum as *the* key indigenous defence program to be involved with. Already we have, on our website, received several hundred expressions of interest from aspiring employees, both professional and trades.

Furthermore, Governments at both Federal and State level are working on addressing current and future skills shortages through such means as increased trades training and apprenticeships.

It is worth remembering that this is not a new challenge for ASC. Twenty-one years ago, we started from scratch in developing

a 1,200-plus skilled workforce to cater for the Collins Class submarine program.

This workforce is now the company's greatest asset. This issue of *In Depth* gives a small taste of the depth and quality of our employees: a female engineer who has been honoured as South Australia's best young engineer by Engineers Australia; a recent arrival from the UK who is an international expert in his chosen field; and the many hundreds of employees who worked on HMAS *Waller's* full-cycle docking, recognised as the national Project of the Year by the Australian Institute of Project Management.

These employees are a reminder of how far we have come as a company in just 20 years. There will be recruitment challenges for us in the next 20 years, but our fundamental business philosophy and track record show we are well prepared for what's ahead.

Greg Tunny

# ASC welcomes subcontractors to new facility



*Greg Tunny, ASC Managing Director and Brett Smith, Raytheon Combat Systems Technical Officer.*

ASC has officially welcomed our key subcontractors to their new facility at our Osborne, South Australia site.

The Combat Systems Support Facility (South Australia) houses Boeing Australia for communications work, Raytheon Australia for combat systems work, and Thales Underwater Systems for sonar work.

ASC Managing Director Greg Tunny toured the new facility recently and met with

Raytheon staff before cutting a symbolic red ribbon at the building's entrance.

"The relationships we have with our subcontractors are important to us – so we have provided Raytheon, Boeing and Thales with a new, high-quality, purpose-built facility onsite," Mr Tunny said.

"The facility was remodelled at a significant cost for us, and we completed the task a week ahead of schedule.

"There were specific building upgrades needed to satisfy strict security requirements which we met in time for Raytheon to move from its previous location.

"We also had to time the move so that it did not impact upon the schedule for work associated with HMAS *Waller's* Replacement Combat System.

"Our relationship with these particular subcontractors is good. Keeping them onsite helps maintain these relationships because we are able to work with them on a day-to-day basis.

"I welcome Raytheon, Thales and Boeing to their new facility at ASC and look forward to ongoing, close and professional working relationships with them."

## ASC achieves \$29.6 million profit

ASC has recorded a \$29.6 million after-tax profit for the 2006-07 financial year, according to our annual report.

Managing Director Greg Tunny said the company's outstanding operational outcomes for Defence led to our best operating financial result in 14 years.

"The company's performance, both in terms of efficiency and effectiveness in the delivery of customer outcomes, improved significantly during the year, achieving new benchmarks.

This resulted in record incentive payments under the submarine through-life support contract," Mr Tunny said.

Other highlights included:

- Continued achievement of a best practice occupational health and safety record;
- Completion of HMAS *Waller's* full-cycle docking, including first-time implementation of the replacement combat system and heavyweight torpedo capabilities; and
- Conclusion of Phase 2 of the Hobart Class Air Warfare Destroyer Program, following Second Pass Approval.

*The 2006-07 annual report can be found at [www.asc.com.au](http://www.asc.com.au) or copies can be requested from [communications@asc.com.au](mailto:communications@asc.com.au)*



# Defence leader an inspiration



## General John Stuart Baker AC DSM (1936-2007)

ASC is saddened by the passing of General John Baker AC DSM on 9 July, 2007, aged 71.

A valued member of the company's Board and Audit Committee, General Baker was appointed a Director of ASC on 1 July, 2002. He played an important role on the Board that oversaw ASC's transition from submarine construction to through-life support maintenance, and expansion into naval shipbuilding.

General Baker's association with ASC came after a long and distinguished career with the Australian Defence Force.

He joined the Australian Army in 1954, and his 44-year military career saw him undertake a wide variety of command, staff and field appointments.

In 1995 General Baker was appointed Chief of the Defence Force, and was also promoted to the Companion of the Order of Australia.

During his tenure as Chief of the Defence Force, General Baker led significant structural change with the implementation of new and more effective higher command and control arrangements.

He retired from the Australian Defence Force in 1998, the same year he was awarded the Distinguished Service Medal.

ASC Chairman Mr John Prescott AC said the company was privileged to have had General Baker's expertise on its Board.

"He brought considerable defence and leadership expertise to his directorship and provided enormous support to the Board in its deliberations; his contribution was widely appreciated," Mr Prescott said.

"We especially appreciated his ability to focus succinctly on the challenges we had to address; notably for both the Collins Class submarines and Hobart Class air warfare destroyers."

Prime Minister John Howard said General Baker served Australia with distinction during his military career and his retirement.

"I knew General Baker well. He was the first Chief of Defence Force I worked with when I

came to office in 1996 and I valued his sage advice in that period," Mr Howard said.

"His leadership of the Defence Force through a significant period of change, including integration of the military and civilian arms of Defence, was inspirational."

In his eulogy for General Baker, current Chief of Defence Force Air Chief Marshal Angus Houston AO AFC described him simply as 'a great Australian'.

"John Baker was sincere and humble," Air Chief Marshal Houston said.

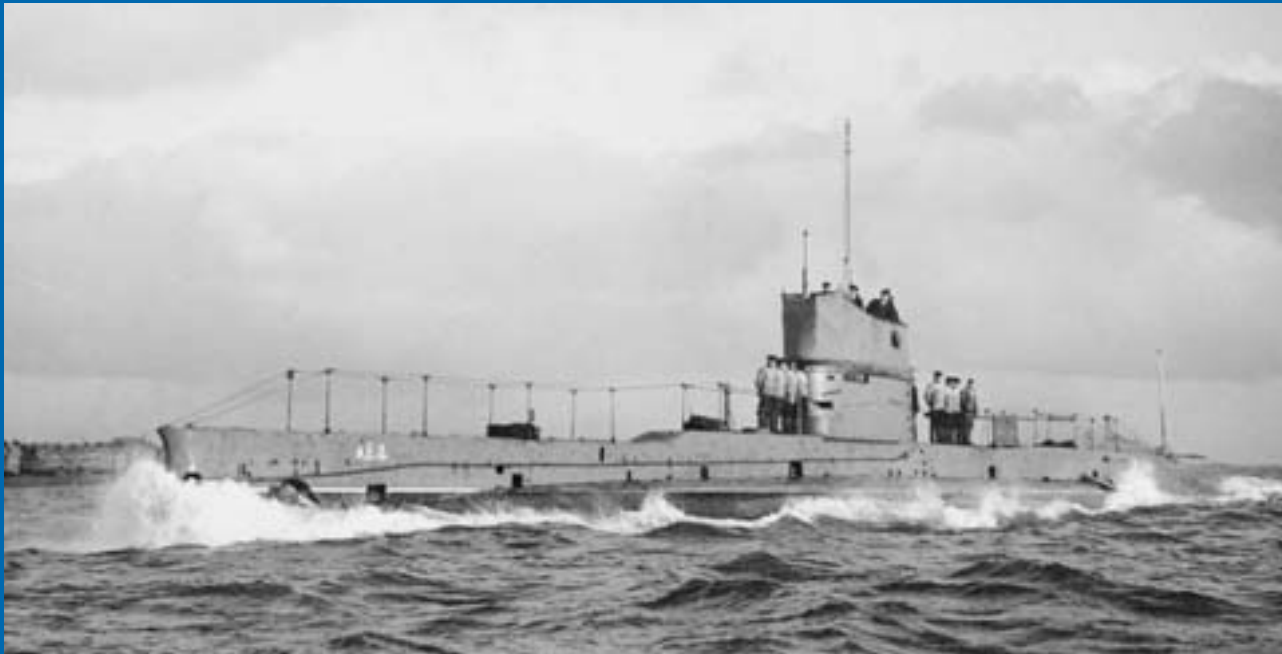
"He was always professional, loyal and dedicated. He was exceedingly intelligent. His capacity for hard work was unrivalled, as was his steely resolve. Loving, caring, compassionate and so very close to his wife Margaret and their family, John was a remarkable man.

"His example is an inspiration to us all."



*Air Chief Marshal Angus Houston, Chief of Defence Force delivers the eulogy for General Baker at St. Christopher's Church in Canberra.*

# Raising new Anzac spirit for submarine pioneer



*HMAS AE2 off the English coast in September 1914. Photo courtesy of the Australian War Memorial.*

Australia's modern-day submarine designer ASC has joined bilateral efforts to preserve a sunken Anzac pioneer.

HMAS *AE2* – one of Australia's first military submarines – has lain intact in 73m of water for nearly 100 years off the Gallipoli Peninsula after heroic efforts in World War One.

ASC is supporting a campaign, led by the *AE2* Commemorative Foundation, to highlight the achievements of HMAS *AE2*.

This includes a recent expedition by Australian and Turkish naval authorities to conduct investigations of the wreck's structural integrity, with the results enabling both countries' governments to make informed decisions about its future preservation.

Director of operations with the expedition, Terry Roach, told ABC Radio that HMAS *AE2* performed gallant deeds for the Allies during the Gallipoli campaign which began on 25 April, 1915.

"HMAS *AE2* was the first Allied submarine to penetrate the Dardanelles (Strait)," Mr Roach said.

"Two previous attempts by two other submarines had resulted in their destruction, so HMAS *AE2* was going into a very risky situation.

"Not only were there minefields blocking the entrance to the narrows (of the Dardanelles Strait), but there was also a large current flowing out from the Sea of Marmara. Nevertheless... in following his instructions to create a diversion as the Australian soldiers

were landing at Anzac Cove, (HMAS *AE2* Commander Henry) Stoker exposed himself in the Narrows, drew the fire of the forts and torpedoed a Turkish ship."

After disrupting Turkish supply lines for five days, HMAS *AE2* was scuttled on 30 April, 1915 after falling to Turkish gunfire in the Sea of Marmara, with all of her crew captured.

The vessel was re-discovered in 1998 by a Turkish maritime historian. The current expedition has revealed that the structure of the hull is still relatively good.

Mr Roach said the expedition has another, larger vision: to raise the profile of HMAS *AE2* to an Australian public who may be unaware of its importance to the Allied campaign at Gallipoli.

"We want all Australians to be aware of the exploits of HMAS *AE2*," he said.

"We would like to think that it's a tale that could rival the heroism of Simpson and his donkey, the exploits of HMAS *AE2* and the crew in penetrating the narrows and starting this campaign."



*A diver examines the wreck of HMAS AE2 during the recent Australian and Turkish expedition.*

*Photo courtesy of the AE2 Commemorative Foundation Ltd.*

# Ritchie appointed to ASC Board



*Vice Admiral Chris Ritchie AO.*

Former Chief of the Royal Australian Navy Vice Admiral Chris Ritchie AO has been appointed to the Board of ASC Pty Ltd, the Minister for Finance and Administration, Senator Nick Minchin, announced in August.

“Chris Ritchie’s strong naval background and valuable knowledge of Defence’s operational requirements will ensure he adds considerable value to the work of the ASC Board,” Senator Minchin said.

“His distinguished background and career achievements make him an excellent addition

to the Board, and we look forward to his contribution as ASC continues to expand and meet its future commercial challenges.”

VADM Ritchie will join Board members Mr John Prescott AC (Chairman), Mr Greg Tunny (Managing Director), Mr Charles Bagot, Mr Graeme Bulmer, Mr Mike Terlet AO, Mr Geoff Phillips and Dr Bill Schofield AM to lead the company through its future challenges.

## Josh’s submarine career rocketing along



*Josh Smith, Lead Structural Engineer.*

Josh Smith’s career has gone from outer space to under the waves.

The Lead Structural Engineer became one of our few staff to possess a PhD when he graduated from the University of Adelaide with the honour in July.

And although his focus with us is submarines, his PhD was earned after years of research into systems associated with rocket engines.

Josh spent the majority of his PhD in Germany conducting research at the

German Aerospace Centre’s Institute of Space Propulsion located near Stuttgart in the country’s south.

“I graduated from my undergraduate degree in 2000 at the University of Adelaide, and was awarded a scholarship to go to Germany where the aerospace industry is much more prominent than it is here in Australia,” Josh said.

“At the time, I was intent on a career in the aerospace industry. It was a great opportunity and it was really worthwhile,

but coming towards the end of the research phase I realised that I wanted to continue my career in Australia.”

“The aerospace industry is somewhat limited in Australia, so I decided to change direction and when the opportunity came to join ASC in 2005 it felt like the right thing to do.”

For Josh, the main difference between his aerospace study and his work with us has been the practical nature of working on submarines.

“With the PhD, it was more scientific and theoretical in nature; at ASC it’s a lot more applied,” he said.

“You see the product every day and you have to be able to talk to all sorts of different people, from the customer and senior managers to the guys on the shop floor.

“I hadn’t done much structural engineering since my undergrad degree, so in that respect it’s been a steep learning curve for me. There’s certainly a lot to learn and that challenge is one of the main reasons I enjoy it here.”

# Green light for Navantia's AWD design



*An F100 destroyer under construction at Navantia's Spanish shipyard.*

ASC has welcomed the Federal Government's announcement of Navantia's 'Existing' design as its chosen platform for the Hobart Class Air Warfare Destroyer (AWD) Program.

In our role as shipbuilder for the AWD Alliance, we will now construct three

Navantia-designed air warfare destroyers for the Royal Australian Navy (RAN) at our Osborne shipbuilding facility.

Navantia's design was chosen ahead of US firm Gibbs & Cox's 'Evolved' design.

ASC Shipbuilding Chief Executive Officer Mr John Gallacher said he was delighted that the Existing design was chosen.

"It's an exciting time for ASC, because we can now move into the next phase of the project: finalising the design, preparing our infrastructure and ultimately beginning the build process," Mr Gallacher said.

"I congratulate Navantia on having its design selected, and we are looking forward to working with them to build the best possible ship for the RAN.

"ASC is confident that the chosen design will provide an excellent capability for the RAN for many years to come.

"I would like to thank all of the ASC staff who worked on the Existing design team. Similarly, I commend ASC staff, as well as staff from the other Alliance members, for their role as part of the Evolved design team."

Defence Minister Dr Brendan Nelson said the first air warfare destroyer was due to be delivered in late 2014, followed by the second and third ships in early 2016 and mid 2017 respectively.

"The Royal Australian Navy will undergo a quantum leap in its air warfare capability when the F100 enters service," Dr Nelson said.

## Gallacher to head AWD Alliance

ASC staff will play a key role in the Air Warfare Destroyer (AWD) Alliance Management Team which has been restructured for Phase Three of the AWD Program.

ASC Shipbuilding Chief Executive Officer Mr John Gallacher has been appointed Chief Executive Officer of the AWD Alliance.

As Chief Executive Officer, Mr Gallacher is accountable for strategic relationships with the AWD Alliance Project Management Board, the customer community and others to ensure delivery of the AWD Program.

Mr Gallacher will also remain Chief Executive Officer of ASC Shipbuilding.

ASC Chairman Mr John Prescott said that Mr Gallacher's wealth of demonstrated experience will prove a valuable asset during this important start-up phase of the Alliance.

"The AWD Alliance is fortunate to benefit from John Gallacher's international experience in major industrial projects, as well as his commitment to the alliance contracting model which lies at the heart of this next generation program," Mr Prescott said.

Other ASC appointments to the AWD Alliance Management Team are:

- Doug Callow as AWD Alliance General Manager Operations, following on from his previous role as Alliance General Manager;

- Scott Blackburn as AWD Alliance Shipbuilding Director, after his previous position as Shipbuilding Project Director – Evolved Team;
- Jim Carr as AWD Alliance Technical Director, following on from a similar position for the Evolved Team during Phase Two; and
- Jon Moore as AWD Alliance Services Director, having previously been Executive Manager – Change and Improvement for ASC.

# AWD contract heralds a new era



*Juan Pedro Gomez Jaen, Navantia President; John Gallacher, AWD Alliance Chief Executive Officer; Warren King, AWD Program Manager; Greg Tunny, ASC Managing Director; Ron Fisher, Raytheon Australia Managing Director; Vice Admiral Russ Shalders, Chief of Navy and Brendan Nelson, Minister for Defence.*

Twenty years after signing a contract to build Australia's fleet of Collins Class submarines, ASC has secured the agreement to construct Australia's air warfare destroyers (AWDs).

Heralding a new era for the company, Managing Director Greg Tunny signed the Alliance Based Target Incentive Agreement (ABTIA) on 4 October in ASC's AWD shipyard in Osborne, South Australia, along with the other AWD Alliance members, including Defence Materiel Organisation and Raytheon Australia.

The ABTIA commits the Alliance members to work as an integrated team to deliver the Royal Australian Navy's next generation warships. The AWDs will be based on the Navantia-designed F100 warship, currently in service with the Spanish Navy.

A host of political, defence and industry figures attended the event, including Defence Materiel Organisation Chief Executive Officer Dr Steve Gumley, Chief of the Australian Defence Force Air Chief Marshal Angus Houston, Chief of Navy Vice Admiral Russ Shalders, and Navantia President Mr Juan Pedro Gomez Jaen.

The event also saw the signing of the Platform System Design contract between the Commonwealth and Navantia.

Mr Tunny said the significance of the ABTIA milestone – representing the start of construction activities – could be likened to signing the Submarine Build contract twenty years earlier.

"While ASC has been involved in the Air Warfare Destroyer Program for two years now, we have signed the agreement that

will ultimately see Australia's air warfare destroyers built," he said.

"This is tremendously exciting news for the company; both for our employees and for ASC's future. We now set upon the challenging task of constructing Australia's air warfare destroyer capability."



*Greg Tunny, ASC Managing Director signs the ABTIA agreement as Dr Brendan Nelson, Defence Minister and VADM Russ Shalders, Chief of Navy look on.*

To support the shipbuilding effort, our workforce will double by an additional 1,000 people, with spin-off opportunities set to benefit local industry.

The Build Phase that we have now entered involves design planning, engineering and development, and commencement of air warfare destroyer construction activity.

“The commitment of all Alliance participants to arrive at this historical point in the AWD Program cannot be understated,” said Mr Tunny.

“As we now turn to the exciting challenge of building Australia’s next generation warship, we do so with the comfort and knowledge that this dedicated Alliance team will be at the helm.”

AWD Alliance Chief Executive Officer John Gallacher hailed the significant milestone as further evidence that the Alliance is on track and delivering its value proposition to the Commonwealth.

“While DMO, ASC and Raytheon Australia have been working together for two years now, this signing ceremony signals the beginning of a period of high intensity for the Alliance,” Mr Gallacher said.



*Greg Tunny, ASC Managing Director talks to the media at ASC's shipyard.*

“The Build Phase will require the engagement of hundreds of Australian suppliers and the success of the Alliance will depend on our people working as one team to meet the challenges of one of the most sophisticated engineering projects underway in the global defence industry.”

Defence Minister Dr Brendan Nelson said the AWD Program was the largest naval shipbuilding project ever undertaken in Australia, and represented a strong opportunity for Australian industry to provide specialised skills and equipment.

“Australian industry is expected to deliver products and services for around 55 per cent of the AWD Program over the next 15 years. This will be followed by high value through-life support contracts into the middle of the century,” Dr Nelson said.

“The project will provide enormous opportunities for Australia’s shipbuilding, electronics and engineering industries, creating 1,500 shipbuilding jobs in South Australia. Another 1,500 jobs will be created throughout Australia.”



*Celebrating the historic contract are Imogen Hume, Corporate Lawyer; Doug Callow, AWD Alliance General Manager – Operations; Michael Atkinson, Legal Manager – Ships; John Gallacher, ASC Shipbuilding Chief Executive Officer and AWD Alliance Chief Executive Officer; and Greg Tunny, Managing Director.*

# 20 years of Collins success



*The ASC and Kockums delegation which attended the Collins Class submarine contract signing on 3 June, 1987.*

On a fine sunny Canberra day in June 1987, ASC (then known as Australian Submarine Corporation) signed the multi-billion dollar contract which would help propel us towards being one of the country's leading defence organisations.

At the time, the contract – signed with the Federal Government for the design and manufacture of six Collins Class submarines – was the largest defence contract signed in Australia.

Twenty years later one of the key players in the signing, ASC Deputy Chief Executive

Officer Ross Milton, can still clearly remember the day of the signing as well as the weeks and months leading up to it.

“It was the culmination of a lot of effort by a lot of people,” Mr Milton said.

“The company had been established two years earlier in 1985, and we had spent those 24 months working on the Project Definition Study: detailing what we were going to build, and how and where we were going to build it.

“ASC and Kockums had been regarded as the outsiders – the proposal led by

the German company HDW was definitely favoured to win.

“We had been told a few days earlier that our bid had been successful, but it was a sense of both relief and excitement to get that contract signed: relief that the hard work we'd done had been successful, and excitement about what lay in front of us.”

## Targeting future young skills



*ASC's James Deal (centre) with Australian Technical College students Hayley Kinross and Tom Dempsey.*

Young people in Adelaide's southern suburbs are receiving a taste of the highly specialised trade skills we need.

As shipbuilder for the Air Warfare Destroyer (AWD) Program and maintainer of the Collins Class submarines, ASC will need hundreds of tradespeople to work on both projects.

A trial saw five of our electricians visit the Australian Technical College – Adelaide South at Christie Downs to give demonstrations of the unique trade work they do.

Subsequent visits have seen demonstrations of all trades, including mechanical, pipefitting, boilermaking and welding.

Electrical Coordinator Mr Alan Masson said the visits have been successful in raising awareness amongst Adelaide's young people about the company's future employment opportunities.

“It's vital for us that we have the right staff with the right skills – so we are going out to the community now to show what we're about, and get young people thinking about us,” he said.

# Ha SA's best young engineer



Ha Do, Project Coordinator with Carl Willis, representative of award sponsor GHD and Bronte Strout, President of the SA Division of Engineers Australia.

ASC's Ha Do has capped off a busy and productive 2007 by being awarded Engineers Australia's Young Professional Engineer of the Year for South Australia.

A Project Coordinator with ASC, Ha is also Chair of the South Australian chapter of Women in Engineering and is an active and energetic member of the local engineering community.

"It's been a hectic year for the Year of Women in Engineering. In my role as Chair of the South Australian branch I have organised as many initiatives as possible to draw focus to the important role women can play in engineering – this is on top of my day job, which also keeps me busy!" she said.

"I was very surprised, and honoured, to win the award. It is nice to be recognised for the work that you do."

Ha will be considered along with other State winners for the national Young Engineer of the Year award, to be announced in November.

## HMAS *Waller* welcomed home



HMAS Waller being put through her paces off the Adelaide coast earlier this year.

Collins Class submarine HMAS *Waller* has been officially welcomed back into the Royal Australian Navy at a rededication ceremony at HMAS *Stirling's* quarterdeck on Friday 24 August in Western Australia.

The ceremony followed a successful three-year full-cycle docking at ASC

in Osborne, South Australia which incorporated some 1,250,000 manhours and 7,500 tasks.

"It's very exciting to have the submarine back home in Western Australia," HMAS *Waller* Commanding Officer Brett Sampson told the *Navy News*.

"We've just completed a very intensive workup period putting the crew and the boat through their paces and I couldn't be happier with the performance. We look forward to rejoining the Fleet."

# Local firm selected to develop \$100 million shipyard...



*John Gallacher, ASC Shipbuilding Chief Executive Officer; Peter Kennedy, Hansen Yuncken Chief Executive Officer and Senator Nick Minchin, Minister for Finance and Administration, at the announcement of Hansen Yuncken as Managing Contractor for ASC's shipyard development. Photo by Greg Higgs, courtesy of The Advertiser.*

The first major contract for ASC's \$100 million shipyard redevelopment has been awarded to South Australian firm Hansen Yuncken.

The new shipyard will become our construction and consolidation site for the multibillion-dollar Hobart Class Air Warfare Destroyer (AWD) Program.

It is our biggest infrastructure program since the 1987 establishment of the Collins Class submarine facility at Osborne, Adelaide.

ASC shareholder and Minister for Finance and Administration, Senator Nick Minchin, announced the selection of Hansen Yuncken at ASC Shipbuilding on 27 June.

"Once completed, this shipyard will be a great home for the AWD project, which will provide enormous opportunities for the shipbuilding, electronics and engineering industries and ultimately create more than 1500 shipbuilding jobs in SA," Senator Minchin said.

Hansen Yuncken has been selected by ASC to design and construct the shipyard, which

will be located adjacent to Techport Australia's Common User Facility in Osborne.

ASC's shipyard will include the development of dedicated AWD production facilities, new office accommodation for 400 employees, a wharf support building with office space and workshops, and a significant upgrade to existing facilities.

Construction is expected to commence in October 2007 and be completed by October 2009. Upon satisfactory completion of the design phase, Hansen Yuncken will again be contracted to perform the associated shipyard construction.

John Gallacher, Chief Executive Officer of ASC Shipbuilding, said development of the shipyard held unique challenges not often found in local construction programs.

"Our shipyard production facilities and infrastructure will need to be capable of handling and transporting ship components weighing up to 1,200 tonnes each – this is no common development project," he said.

"Building the AWDs will be a highly complex task, and we are confident that Hansen Yuncken has the capability to design and build the facilities we require."

## ...as SA Government gives go-ahead to CUF

The State Government has announced details of a \$170 million contract to construct the Common User Facility (CUF) at Techport Australia.

Located adjacent to ASC Shipbuilding, the CUF will be constructed in a joint venture by McConnell Dowell and Built Environs. Preliminary earthworks on the facility have

begun, with completion scheduled for early 2010.

"We are investing more than \$300 million in State-owned infrastructure to support the Air Warfare Destroyer program and provide a home for future naval shipbuilding, systems and sustainment at Techport Australia," Premier Mike Rann said.

"Part of this investment includes design and construction of a world-class Common User Facility – including a 210 metre-long wharf, transfer system and Australia's largest ship-lift, which will be 156 metres long and capable of lifting ships that weigh up to 9,300 tonnes."



# ASC's new welding honour

ASC's high-quality welding has been further recognised with the Welding Technology Institute of Australia (WTIA) honouring ASC as its Company of the Year.

The prestigious honour was awarded to ASC for our welding achievements in 2006 – including our work associated with the ongoing maintenance of the Collins Class submarines, and our research and development of welding techniques – and overall contribution to the defence industry.

Our achievement is profiled in the latest edition of the *Australasian Welding Journal*, published by WTIA in September.

ASC Managing Director Greg Tunny said the welding conducted on the Collins Class submarines is world-class – particularly given the demanding conditions it is often performed in.

“Effective welding lies at the heart of the submarines’ ability to perform safely and efficiently, and I am delighted that our talented welders have been formally recognised,” Mr Tunny said.

“The welding we undertake as part of our through-life support of the Collins Class submarines is often performed in challenging conditions, because the submarines are already built and the welding must be performed amidst the existing structure.

“We’re also proud that this award recognises our commitment to research and development. At ASC, innovation is prized and we want to remain at the forefront of the progress that is being made in welding methods and technologies.”

As part of our welding research and development program, we work

collaboratively with other leading defence, education and specialist organisations, including the Australian Nuclear Science and Technology Organisation, Defence Science and Technology Organisation and the University of Adelaide.

WTIA Executive Director Mr Chris Smallbone said our commitment to maritime engineering excellence, and our active role in WTIA projects supporting the industry sector, made a very favourable impression on the selection committee.

“ASC has already made a large contribution to the advancement of welding knowledge and techniques, and with its ongoing maintenance of the Collins Class submarines, and soon its construction of the Hobart Class air warfare destroyers, we look forward to the company continuing its leading role in the naval defence industry,” Mr Smallbone said.

# Uncovering submarines' secret sound



*Bill Wood, Signatures and Acoustics Manager.*

Keeping a 78-metre long, 3,000-tonne metal cylinder invisible is a real challenge – and it's a job that Bill Wood thrives on.

Mr Wood, ASC's Signatures and Acoustics Manager, is an international expert in the area of submarine signatures and stealth. He gave an overview of the topic at a free public talk in August jointly presented by the Institute of Marine Engineering, Science and Technology and the Royal Institution of Naval Architects.

"Submarines are designed to be undetectable – they rely on stealth to operate effectively," Mr Wood said.

"Keeping a submarine quiet is an enormous challenge for all submarine designers and builders. There are thousands of internal

moving parts; because the submarine is made of metal it gives off magnetic and electric fields; and as it moves through the water it also creates noise.

"A lot of time and effort also goes into detecting submarines through methods like passive and active sonar, low-flying planes which use sophisticated detection equipment, sea mines, and so on.

"All these factors have to be considered in submarine design and construction, and my presentation gave an overview of these and other challenges involved in this field."

Mr Wood said Australia's Collins Class submarines – designed, built and now maintained by ASC – were excellent examples of how effective silent submarines could be.

"Obviously I wasn't able to go into too much detail about the work we do with Collins, but they are regarded as the best non-nuclear submarines in the world partly because they are very good at remaining undetected," he said.

"In exercises with a number of world navies, including the United States Navy, they have been able to break through the surrounding 'anti-submarine warfare screen' and get close enough to 'enemy' aircraft carriers to sink them – a credit to both the design of the submarine and the crews operating them."

Mr Wood has more than 20 years of experience in the UK defence industry across the private, Government and university sectors. He joined ASC in November 2006.

# ASC in the spotlight at D+I conference



*ASC's stand was a popular destination at the Defence and Industry Conference.*

ASC provided a major presence at the 15th Defence and Industry Conference and Expo held at the Adelaide Convention Centre in August.

This year marked the first time the conference was held outside of Canberra, and was also open to industry exhibitors.

Our stand proved a drawcard for many of the 2,000 delegates who attended over the two days.

Another highlight was joining with Defence SA to provide a Happy Hour at the end of the first day, giving delegates a valuable opportunity for further networking and discussions.

Held by the Defence Materiel Organisation, this year's conference had the theme 'Supplying Nationally. Competing Globally. Performance, Partnerships, Innovation.' and was officially opened by Defence Minister Dr Brendan Nelson.

## US Navy Secretary visits



*Donald C. Winter, US Navy Secretary and Greg Tunny, Managing Director.  
Photo by Shawn Eklund, courtesy of the US Navy.*

Dr Donald C. Winter, the Secretary of the US Navy, received an overview of ASC's business during a recent trip to Australia.

Dr Winter visited Sydney, Canberra, Adelaide and Perth to gain an insight into and see first-hand shipbuilding practices which

might be applicable to the United States' shipbuilding industry.

In Adelaide, he met with key figures in the Air Warfare Destroyer (AWD) Alliance at the AWD Systems Centre, including AWD Alliance Chief Executive Officer

John Gallacher, Program Manager Warren King and Deputy Program Manager CDRE Andrew Cawley.

He then travelled to Osborne and received a tour of ASC's submarine facility from Managing Director Greg Tunny.

In Western Australia, Dr Winter toured the Submarine Force Element Group Headquarters at HMAS *Stirling* where he obtained a first-hand look at the Weapon System Trainer Facility, and went onboard Collins Class submarine HMAS *Collins*.

Dr Winter also visited the Australian Marine Complex at Henderson, home to ASC's new state-of-the-art submarine support facility in Western Australia. This facility is currently under construction and is scheduled to begin its first maintenance activity in the 2008/09 financial year.



*ASC and AIPM staff celebrating the State Project of the Year award (back) Don McNamara, Project Accounting Manager South Australia; Helena Wescombe-Down, Executive Assistant; Mark Stephens, Senior Project Manager; David Betts, Principal Combat, Communications and Control Systems Engineering Coordinator; Andy Cann, HMAS Waller full-cycle docking Project Manager; Peter Shears, AIPM Chief Executive Officer; (front) Stephen Beaty, AIPM South Australian Chapter President; Gordon Fawcett, Boat Superintendent/Boat Manager and Peter Whyte, Boat Manager.*

# National award for HMAS *Waller* upgrade

ASC's upgrade of Collins Class submarine HMAS *Waller* continues to receive acclaim.

We were awarded the national Project of the Year and Best Defence/Aerospace project at the Australian Institute of Project Management's (AIPM) Project Management Achievement Awards, announced at the AIPM national conference dinner in Hobart on 9 October.

The two prestigious national honours follow on from the three State awards we won in September: Project of the Year, Best Defence/Aerospace project and the People's Choice award.

It is also believed to be the first time a South Australia project has gone on to claim the national Project of the Year award.

We conduct the extensive maintenance and upgrade program for Collins Class submarines – known as a full-cycle docking – at our Osborne, South Australia facility.

HMAS *Waller's* full-cycle docking began in March 2004 and concluded in March 2007, and incorporated some 1.25 million manhours and 7,500 tasks.

We delivered four 'big-ticket' items for HMAS *Waller's* full-cycle docking which were first-of-class: a Replacement Combat System, Heavyweight Torpedo, sewage automation and Halon fire suppression, as well as completing numerous other modifications and enhancements.

The full-cycle docking also involved the cooperation and support from our customers, the Defence Materiel Organisation and

the Royal Australian Navy, plus numerous subcontractors and suppliers.

Managing Director Greg Tunny said the awards were a credit to the hundreds of our staff who had contributed to the project.

"Full-cycle dockings are far from easy – Collins Class submarines are enormously complex vessels, and upgrading them so that they can best serve our nation's interests is a challenge we thrive upon," Mr Tunny said.

"We have now performed three full-cycle dockings efficiently and capably, and are well underway in our fourth for HMAS *Dechaineux*.

"To be recognised nationally for the work we do is gratifying, and testament to the hard work and skill of our staff."