The Billion Dollar Blunder

By Marcus Peake

If you look into the Royal Australian Navy's historical records on the Super Seasprites you'll find very little - just a photo and a paragraph or two of vague text. There's nothing in the FAA museum either, and only a couple of rotting fragments of their airframes remain on Australian soil. It's almost as if the pages of our history have been expunged of their memory.

But the Seasprite Project took eleven years and consumed over a billion dollars, so they are very much a part of our history, like it or not.

So what was the story? Why was such a diverse airframe chosen in the first place, and what were the decisions that doomed the project to be the greatest failure in our procurement history?

In January 1997 Australia's then Minister for Defence, Ian McLachlan, announced the RAN would acquire 11 Kaman SH-2G(A) Super Seasprite helicopters.

Eleven years later Senator Joel Fitzgibbon, the new Labour Government Minister for Defence, announced the Government intended to cancel the project.

The interval between the two events bequeathed the Project two unenviable records: for the most troubled Defence acquisition process ever, and the least successful. Not a single operational aircraft was ever brought into service, despite expenditure of over one billion Australian dollars. So what went wrong?

The Super Seasprite acquisition was born of a need to acquire helicopters for the RAN's Anzac class frigates. These were due to enter service in 1996 but no dedicated aircraft had been included in the purchase.

The RAN was still taking delivery of Sikorsky S-70B-2 Seahawks for its FFGs, and there was an expectation that more airframes would be purchased for the Anzacs as well. This would avoid additional aircraft types in a small Fleet Air Arm inventory, provide commonality in training, maintenance and logistics, and would have amortised the Seahawk costs across a larger fleet.

But there was a wildcard in the pack – the Offshore Patrol Combatant (OPC), which was in early development to replace the RAN's ageing Fremantle class patrol boats. In the original design there was no intent for the OPC to carry a helicopter, but it was soon realised that organic air support would significantly enhance the vessel's surveillance and strike roles, particularly if it could deploy a weapon well beyond the ship's horizon. Accordingly, the original plan to acquire 15 OPCs was reduced to just nine, with the savings put towards the cost of a new helicopter.

The specifications for the new helicopter set ambitious targets. A primary role was to extend the OPC/Anzac's strike range. To do so it would be required to detect, classify and engage targets over the horizon, and to communicate with her via a secure data link. Further, it was to be equipped with an anti-ship missile with a range superior to a target's own weapons, as well as torpedoes to attack

submarines detected by the mother's sonar system.

The missile requirement drove much of the helicopter's sensor suite, as the RAN wanted both active and passive prosecution. This dictated a high-definition radar, together with Infra-Red sensors and a suite of Electronic Surveillance equipment.

The choice of missile was also informed by the helicopter's role. The Navy wanted to inflict crippling damage to an enemy ship, so it selected the Kongsberg Penguin Mk 2 missile – a formidable weapon boasting a 125kg warhead, an inertial nav/passive infra-red guidance and a range of some 20 nautical miles.

Above. Images of the original 1993 OPC design are hard to come by, but the winning contender for the 2018 OPV, the Lurssen OPV80, gives a good idea of the concept. At 80-metre is the same length as the OPC design, but with a Displacement 26% greater (Image: Lurssen).

Ships and People

The OPC program gained extra momentum when Malaysia expressed an interest in acquiring a similar class of vessel. The advantage of a joint program was irresistible, particularly as the RMN's requirement was for 27 such vessels against Australia's nine.

But at 81.5m long and just 1350 tonnes displacement, the OPC would be too small for the 10-tonne Seahawk. A smaller helicopter in the 5-6 tonne class was required, and as no aircraft had yet been procured for the Anzac frigate it was decided the OPC would dictate the type, and the Anzacs would follow suit. This essentially killed any notion of further Seahawks, and significantly limited the field of aircraft available.

Aside from the aircraft's displacement and weapon fit, a third factor would also affect specification: the number of crew it would carry.

Naval helicopters typically carried at least a three-man crew – certainly those with complex weapon/sensor systems. The Seahawk was a good example, with a single pilot in the right-hand seat, an Observer/TACCO in the left and a SENSO at the console in the cabin. But the concept for Sea 1411 was to remove one crewmember by combining the TACCO and SENSO roles into a single station. The reasons were logical: reduction to just two people would not only save weight, but would alleviate aircrew recruiting and training pressures.

But the trade-off was a high workload for the two crew members. Under this concept the TACCO/SENSO would be responsible not only for mission planning, but the operation of the complex sensors and weapon systems. The pilot, aside from flying the helicopter, would also have to assume more of the sensor management and tactical planning.

Keeping this minimalist crew workload to an acceptable level dictated a very sophisticated mission system with a cutting-edge human-machine interface. The answer was an all-new digital Integrated Tactical Avionics System (ITAS), to link all the sensors and weapon systems in the aircraft and deliver information to the crew via high resolution colour multi-functional displays. For example, the TACCO might elect to display his navigation track and waypoints on one screen and then quickly overlay sensor information over the nav information, such as radar and ESM tracks. Unwanted information would be filtered out. The displays also replaced many of the aircraft's old analogue flight instruments. An all-new Automatic Flight Control System (AFCS) would also be required – in effect, an 'autopilot' that could fly the aircraft throughout most of its flight envelope, further reducing the pilot's workload.

Contenders

The ADF's Defence Material Organisation (DMO) issued its Request for Tenders in October of 1995, and by March of the following year the two contenders – Westland for the Super Lynx and Kaman for the Super Seasprite – lodged Tenders for the supply of 14 aircraft. It soon became clear that acquiring this number would exceed project costs, and so the figure was reduced and the procurement of the missile was moved to a separate Project (Sea 1414).

Kaman's Super Seasprite was fitted with two General Electric T700 powerplants (the same as the RAN's Seahawks, thus offering logistic commonality) and was about 10% cheaper. The Lynx only had two crewmembers but its suite of sensors and level of their integration was less than required by the Australians. Further, the British helicopter was too small to carry the type of missile DMO had in mind.

The Sea Sprites only interaction with ships was for test and evaluation flying. Here, one lands a aboard an FFG frigate in Sydney harbour.

Super Seasprites Win

On January 1997 – a month before tenders for Malaysia's OPV contract were due – the Australian Government announced the acquisition of 11 Kaman Super Seasprite SH-2G(A) helicopters to equip its Anzac frigates, and '…that further orders ...would be considered to take account of possible future needs and to support the prospective Offshore Patrol Combatant.'

To reduce costs Kaman had offered 're-worked' Super Seasprites rather than new ones, and this option was also taken. These were SH-2F airframes refurbished to an as-new condition. The estimated saving was about $25m.

So the die was cast: Defence had selected a helicopter based primarily on the following four specifications:

- they would be small enough to service the OPC, which was still in project development;
- they must be capable of a significant surface strike capability requiring complex, self-contained sensors;
- the crew would normally comprise just two people, requiring a state-of-the-art Integrated Tactical Avionics System and an Automatic Flight Control System, and
- they would be refurbished airframes, rather than new ones.

Kaman and the DMO signed the $661.8m prime contact in June of 1997, with deliveries scheduled for 2001. The contract implied that the original US Navy type certification for the new Super Seasprite and its flight control system was acceptable to the RAN at the time. (The following year a new tri-Service certification was adopted but rather than re-negotiate the contract to the new standard a decision was made for the Project Office to manage the gap between the two. This brought certification issues which remained unresolved throughout the Project's life).

The OPV Connection Breaks

Four months after the Kaman contract was signed the OPC program collapsed when the Malaysian Government chose Blohm-Voss to build their Offshore Patrol Vessels, rather than Transfield (Australia). Malaysia's decision not to proceed effectively killed one of the principal reasons for selecting the Seasprite.

In retrospect is difficult to imagine why Australia had such high expectations that a joint Australia-Malaysia patrol boat program would proceed. Four years earlier Malaysia's prime minister, Dr. Mahathir Mohammed, had taken great offence when his Australian counterpart described him as 'recalcitrant' for not attending an APEC summit in Seattle.

Mohammed's attitude to Australia was already ambivalent, to say the least, and the rebuke by

Keating caused diplomatic friction that lasted for years. Even without this slight it's fair to say the Malaysian government had little love for what they regarded as a 'colonialist' Australia and, with other options on the table for their OPC, was always likely to give them preference rather than a joint program with us.

The cancellation of the OPC program triggered a requirement to re-examine Project Sea 1411 and, if it couldn't be justified, to cancel it. The option to put Seahawks on the Anzac frigates was a possibility – the S70B could carry a long range anti-ship missile, just as the Seasprite could, and commonality factors with the existing fleet were a powerful incentive to take this path. But against these advantages was the ill-feeling between Sikorsky and the RAN which had developed during the Seahawk acquisition, and their affordability. Even though the Seasprite was an all-new and different aircraft type with all the risk and cost that entailed, on paper it remained much cheaper than the Sikorsky option. Defence thought the Kaman contract represented good value for money and, with sunken costs already committed, was not inclined to cancel it. In retrospect, it was a huge mistake.

It is easy to be wise in hindsight. Arguably, the relevant committee was ill-equipped to understand just how difficult it would be to develop a state of the art ITAS/AFCS for a suite of sensors never before placed in an ADF maritime helicopter – yet alone in airframes well over 20 years old – and to deliver it on time and in budget.

Progress & Problems

In the meantime, all was going reasonably well. In February 1998 Defence signed a $79m contract with Kongsberg Gruppen (Norway) for an initial batch of Penguin missiles, followed a year later by a second $76m contract. In March of 1998 a contract for FLIR and ESM was signed.

Work was also progressing in Kaman's plant in the USA. By June of 1999 Kaman was flight testing the new AFCS on a Super Seasprite, and the first prototype of the Australian version was on the assembly line. Delivery of the first aircraft was forecast for the end of 2000, with the final aircraft in 2002.

By March 2000 the SH-2G(A) had reportedly made 13 flights using the first iterations of ITAS and AFCS software, and flight testing was expected to continue. By then the second ITAS software build was underway with the relevant sub-contractor – Litton Guidance & Controls, a California-based company. But it was clear that schedules were beginning to slip, with the focus on Litton's performance. Delays were noted in the development of ITAS and flight simulator elements of the project, and concern was expressed in the lack of critical documentation.

"Defence thought the Kaman contract represented good value for money and, with sunken costs already committed, was not inclined to cancel it. In retrospect, it was a huge mistake."

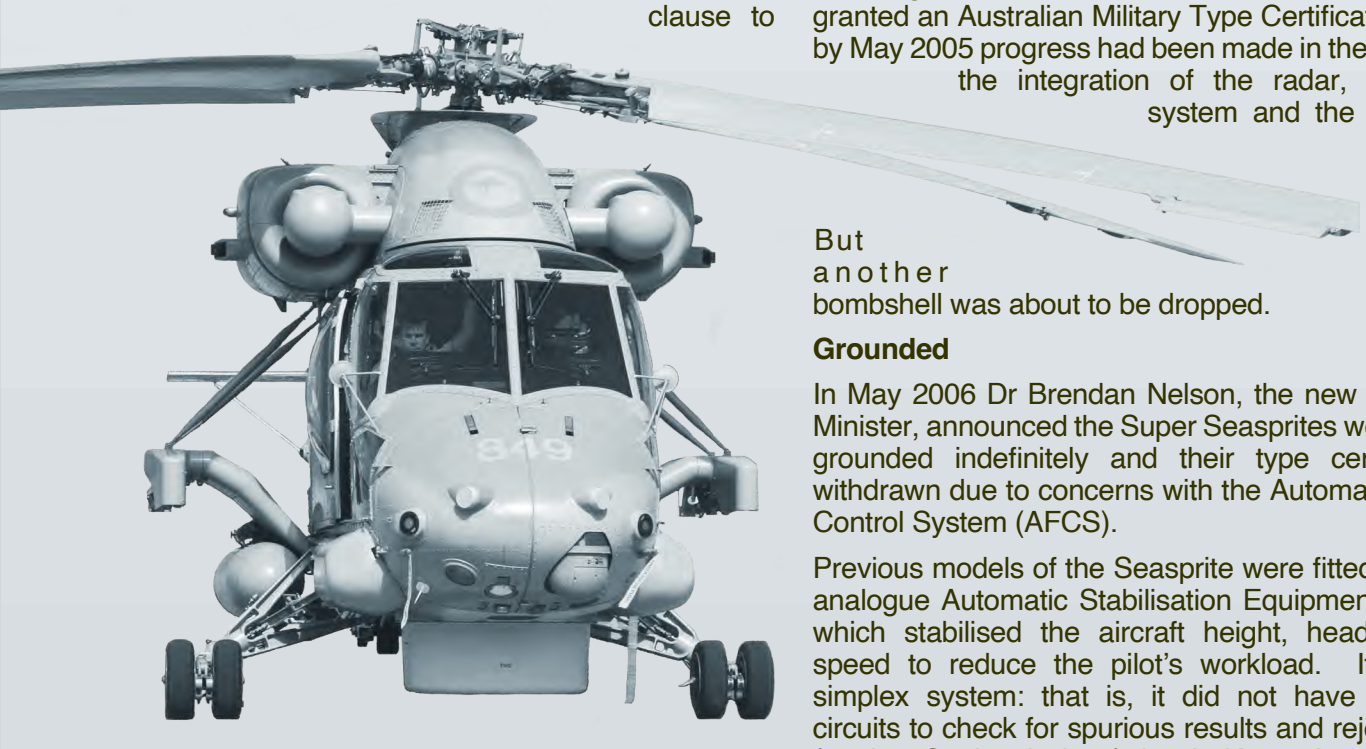
In retrospect, Litton – who was the main sub-contractor for delivery of the ITAS – completely underestimated the magnitude of the task. It was then acquired by Northrop-Grumman, creating further confusion in its focus on the work. By late 2000 Litton reported it had run into difficulties and was asking for additional money to finish the ITAS work.

First Seasprites Arrive

The first Seasprites arrived in Australia in 2001 to facilitate maintenance and aircrew training, but the lack of a functional, integrated ITAS meant they were unable to do any tactical training. Months passed and the original deadline came and went without any tangible progress. In February 2002 a Senate Committee was told that persistent ITAS problems would delay service entry for at least another two years. It was also informed that Kaman had terminated Litton's contract in late 2001 and

appointed two new sub-contractors to finish the work: CSC Australia Ltd and Northrop-Grumman Integrated Technology.

By February 2002 Kaman had already been paid some 80% of the total fixed price contract, but only six aircraft had been built and these still belonged to them, albeit at its facility in Nowra. The way the acquisition contract was structured meant that DMO was required to pay as various milestones were reached, even if the aircraft were dysfunctional. It wasn't the only problem with the contract – there was no clause to



penalise Kaman if it didn't deliver. There was no way for Defence to get its money back, or even its money's worth, except by sticking to the contract in the hope of eventual success.

There was also a conflicting sustainment contract, under which the ADF found itself paying for the maintenance of airframes which hadn't been delivered. This problem was only resolved in 2003.

Problems and Money

By then Defence was in a classic sunken-cost dilemma, where the stark choice was to cancel the contract with nothing to show for it, or to

grit its teeth and pay more to continue, even though it was fraught with risk. DMO decided on the second path.

And so the project struggled on. By then the working relationship between the key parties had soured, with acrimony a frequent event. There was also a growing lack of confidence in the process and the reliability of ITAS.

Provisional Acceptance - Of A Sort

In late 2002 the Chief of Navy refused to take Provisional Acceptance of the aircraft. But in October the following year the then Minister for Defence, Robert Hill, announced that the RAN would provisionally accept eight of the aircraft in an "Interim Training Helicopter Configuration" to enable flight testing and operational evaluation. This would allow the newly commissioned 805 Squadron to start training by the end of 2004.

In November 2003 the first Super Seasprite deck landings occurred aboard an Anzac class frigate, followed by First of Class Flight Trials in May the following year. By late 2004 the aircraft had been granted an Australian Military Type Certification, and by May 2005 progress had been made in the ITAS by the integration of the radar, data-link system and the Penguin missile.

But another bombshell was about to be dropped.

Grounded

In May 2006 Dr Brendan Nelson, the new Defence Minister, announced the Super Seasprites were to be grounded indefinitely and their type certification withdrawn due to concerns with the Automatic Flight Control System (AFCS).

Previous models of the Seasprite were fitted with an analogue Automatic Stabilisation Equipment (ASE), which stabilised the aircraft height, heading and speed to reduce the pilot's workload. It was a simplex system: that is, it did not have back-up circuits to check for spurious results and reject them (as the Seahawk does); but in Kaman's eyes ASE failures were rare and if one occurred the pilot simply override it to continue the flight manually.

But the RAN'S two-man crew configuration required a system that would reduce crew workload to a greater extent than ASE, and so a digital AFCS was specified. Critically, it had to work though the 'old' flight control configuration – that is, with mechanical linkages between the controls and the rotors; and it was still a simplex system.

The fault that grounded the Seasprites was incidents of 'hard-overs', when the AFCS spuriously drove one of its control actuators to the end of its travel.

Contrary to Kaman's view, the RAN regarded this as a critical fault that could jeopardise the safety of the aircraft in some parts of the flight envelope.

The difference between their views came back to the changes Australia had made to the design and modus operandi of the SH2G(A). The reduction to two crew members meant the pilot would already have a high workload, and, distracted by his other duties, may not be able to react in time to save the aircraft in such a failure. Further, the cramped cockpit and the wider ITAS console restricted the amount of

cyclic control available to counteract the problem, particularly for pilots with larger frames.

The crash of Sea King Shark 02 at NIAS in 2005 with the loss of nine personnel meant the ADF was in no mood to compromise on safety, and so the Director General of Technical Airworthiness demanded a complete re-design of the AFCS to meet modern airworthiness standards – despite the original contract accepting, at least by implication, that the original US Navy certification was adequate. And once the airworthiness question was out of the bag other issues, such as the design of the aircraft's fuel tanks and crew seats to make them more crashworthy, were drawn in.

The consequences of imposing a more contemporary airworthiness certification was staggering – simply put, it is very difficult to achieve unless the aircraft is designed right from the drawing board with those specifications in mind. Clearly, the 30+ year old re-engineered Seasprite was not.

A Last Reprieve

Estimates to rectify the problems – to full civilian type certification – varied considerably. Kaman estimated $40m, whilst DMO considered $100-200m a more realistic figure. In truth, nobody really seemed to know what it would take in terms of money or time.

While these issues were debated the aircraft remained on the ground. Dr Nelson had reportedly decided to cancel the project but to the surprise of many, the Government announced on 25 May 2007 that it had decided to continue the project, probably because of the looming general election.

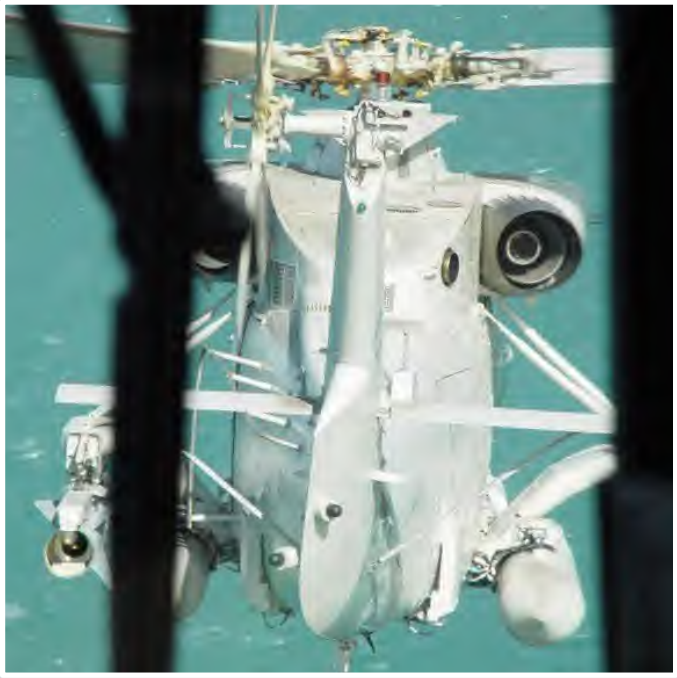
By then the entire project was poison. Nobody had confidence in the aircraft, the capacity of the parties to effectively work together to fix it, or the forecasts of the cost or timeframe to do so. It seemed the dreadful process experienced thus far could only continue indefinitely.

The End of the Line

On 5 March 2008 the new Labour Government Defence Minister announced the decision to cancel the project.

The End of the Line. Upper left - the Ensign is lowered on 805 Squadron at its decommissioning in June of 2008, seven years after it had reformed. Above: Wrapped in plastic in the hangar, and Left, the last of the airframes start their journey back to the Kaman plant in Connecticut. Not one shred of any airframe remains on Australian soil.♣

***Right**. The Kiwis embraced the ex-RAN Sea Sprites, including striking a postage stamp which featured their image. They removed the troublesome AFCS and operate with a crew of three, with no problems.*



It was the end of the line. Kaman gave up $35m in unpaid billings, but kept the 11 airframes and infrastructure back from Australia with a deal to split the sale cost 50/50 if they could find a buyer.

Aftermath

It is fair to say that lessons were learned from the failure of the Seasprite project, one of which informed the 'Smart Buyer' framework under which DMO operates today. It also accelerated decisions to fill the capability gap created by Sea 1411's failure, which ultimately led to the acquisition of the 24 MH-60R Seahawk Romeos now in service.

And what of the Seasprite airframes? Eight were subsequently purchased by the New Zealand government to replace their SH-2G airframes. They removed the troublesome AFCS but retained many of the sensors and weapon systems. They also retained the three-crew concept, and the aircraft are performing well.

The Penguin missiles were also sold, with some going to New Zealand. Although they could have been fitted to our existing Seahawk 70Bs, there was simply no appetite for the technical risk involved.

805 Squadron decommissioned on 26 June 2008, four months after the project's cancellation, and the last fragment of an Aussie Sea Sprite at Albatross - a piece of a training airframe - was burned at the fire ground in the same year. ♣

OPV Post Script

The Offshore Patrol Vessel (OPV) build central to the Seasprite debacle never came to fruition, but it didn't die. It transitioned over the years to become the **Arafura Class** (pictured right), of which there will be a total of 12. It will replace the current Armidale and Cape Class Patrol Boats and is being built by German shipbuilder Lurssen in partnership with ASC and Civmec in Australia.

Four hulls are currently under construction. The first, HMAS *Arafura*, will enter service next year and the 12th towards the end of the decade.

Displacing 1640 tonnes and with a length of 80 metres, the Arafura class boats are similar in size to the OPV that would have carried the Seasprite, but there is no dedicated helicopter in the specification. You can read a little about them **here**. ♣

SeaSprite History in Photos

The decision to acquire a medium size helicopter for the expected new Offshore Patrol Combatant (OPC) ruled out further Sikorsky Seahawk S-70B airframes, and so Defence cast around for types to meet its specifications. For a while there were two contenders - the Westland Lynx and the Kaman Super Seasprite, with the latter winning as it offered perceived capacity and cost advantages over the British platform. In January 1997 the Government announced it would acquire 11 Seasprites which would service the new OPC and the forthcoming Anzac Frigates.

CANBERRA BUSINESS

Big firm seeks new markets

The latest design from Kaman, the twin-engined SH-2G, which is being offered to the Royal Australian Navy as part of the Anzac frigates program.

LINCOLN WRIGHT looks at an aerospace firm which is pitching for defence contracts here.

One of the world's leading helicopter manufacturers, Kaman Aerospace International, opened an office in Canberra last week to take advantage of the bidding for the new Anzac helicopter-carrying frigates.

Kaman is also seeking business here because in the United States, the defence industry is feeling the effects of rapid, post-Cold War reductions in government spending and changes in its acquisition philosophy.

As the US Defence Department scales down its purchases and concentrates more on "smart weapons", traditional suppliers have begun diversifying and globalising their operations in the search for new markets.

And if companies like Kaman are successful in Australia, they plan to locate their production facilities to service the military hardware they supply — with implications for local employment and industry.

In Australia, the tendering process to supply the Anzac frigates with helicopters will probably come down to a struggle between Sikorski, Westland, Eurocopter — and Kaman Aerospace. Kaman is a Fortune 500 corporation established in 1945 by Charles Kaman, and is now a conglomerate producing everything from ship-based helicopters, electo-optic systems and artificial intelligence to even musical instruments.

Although Kaman is a part of the US military-industrial complex and has strong connections to the US armed services, it is also a big provider of industrial products to civilian companies.

"The RAN has specified the helicopters it wants," Jack Costello, a former US Navy captain and now Kaman's regional manager for Australasia, said. "They want an intermediate helicopter with the capacity for anti-surface warfare, which means the ability to go out and search a broad area, to carry missiles and investigate suspect ships."

The model on offer is the latest design from Kaman, the SH-2G, whose cost is "yet to be determined", according to Mr Costello. "The tendering process is fairly similar between the US and Australia, and we're comfortable with a very competitive process. After the request for a tender comes out we have four months to respond."

The decision to set up an office in Canberra was made because in the initial stage there were many benefits, particularly proximity to the naval acquisition centre.

Price Waterhouse also helped out with some of the planning and information.

"We could have set up office in Sydney," Mr Costello said. "And maybe four or five years down the track we'll set up office there or in Melbourne.

"The New Zealand Navy is also an important customer."

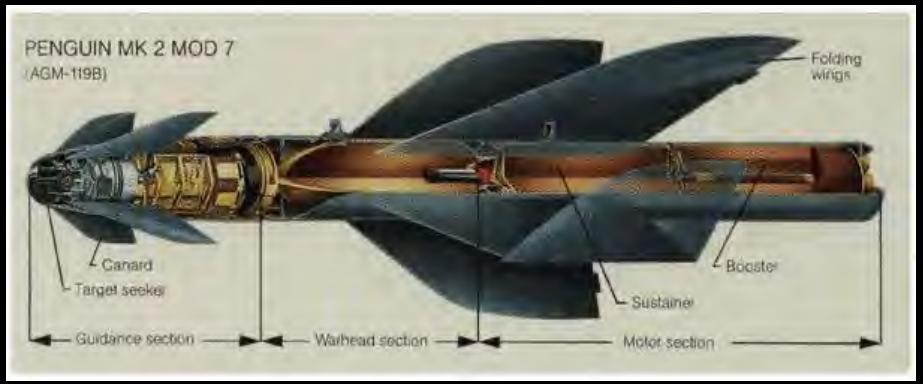
In 1993 a restructuring program began at Kaman, which according to the company's 1994 annual report, included "downsizing and consolidation initiatives and accelerated conversion efforts as we sought new commercial markets for our defence technology resources".

This was in response to the change in acquisition philosophy of the US Defence Department away from purchases based on military specification to performance-based procurement standards and a reliance on state-of-the-art technology.

***Left**: A vessel similar to that proposed under the OPC project, at around 80 metres and 1350 tonnes displacement. Even though the new helicopter size had been largely dictated by the specifications to this vessel, the contract with Kaman was signed before its future was assured. In the event, Australia entered into a deal for 11 helicopters in June of 1997. Four months later the OPC join-venture partnership with Malaysia collapsed when that government bought German boats instead. Despite the OPC setback, the Australian Government decided to remain with the Seasprite, as it was still regarded as a cheaper option than cancellation of the contract in favour of more Seahawks.*

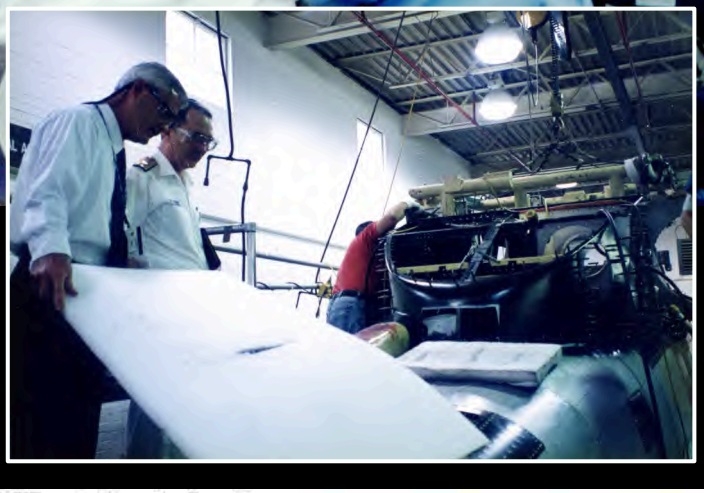
***Above**. A feature of the Seasprite project was that the airframes would be old SH-2F models refurbished to as-new condition, harvesting a saving of about $25m. Eleven airframes were selected from the 'graveyard' in Arizona and taken to Kaman's plant (right).*

***Below**. Defence had also decided it wanted a long range anti-surface missile with significant hitting power, so it chose the Kongsberg "Penguin" In February 1998 the first of two contracts was signed with the Norwegian manufacturer.. With a 125kg warhead and a range greater than 34km it was a potent anti-ship strike weapon. The following month the government also committed to a FLIR/Infra-red contract.*



Right. One of the RAN's specifications was that the Seasprite should be operated by a crew of just two: a pilot and a TACCO. Noting the number of sensors fitted to the aircraft, this required a very sophisticated mission system with a cutting edge human-machine interface. The images on the right illustrate the point: the upper one shows the old analogue instrument panel in the "F" models as purchased out of the desert. The lower is of the new cockpit, featuring a new digital Integrated Tactical Avionics System. All information was displayed via high resolution colour displays, which could be customised to show different information depending on the tactical situation.

The RAN's Seasprites also needed a new Automatic Flight Control System to alleviate crew workload - a feature which ultimately contributed to the failure of the project, as it proved incompatible with the 30 year old airframe.



Above and left. *By mid 2000 the first of the Australian Seasprites had been refurbished and was being flight tested. On 17/18 July 2000 the then Chief of Navy, VADM David Shackleton, visited the Kaman plant in Bloomingfield to be briefed on the project's progress. Clockwise from top left: An SH-2G(A) being assembled on the plant floor; VADM Shackleton in the cockpit of a Seasprite on the line. LEUT Ian Menzies, the Flag Lieutenant, is in the foreground; CDRE Jack McCaffrie inspects the transmission platform of a third aircraft, yet to be completed. (Photographs Jack McCaffrie).*

FIRST SEASPRITE IN AUSTRALIA. ***Below****: The first Seasprite airframe was delivered by a USAF C-17 transport in time to make its debut at the Australian International Airshow in 2001 – but it lacked any functional Integrated Tactical Avionics System (ITAS) as Litton, the principal sub-contractor, had run into problems developing one.*

Seasprite goes on display

Here it is...the first Super Seasprite helicopter for the Royal Australian Navy.

No 1 aircraft of 11 the Kaman Aerospace Corporation is building for the RAN, the helicopter went on public display at the Australian International Airshow 2001 at Avalon Airport, in Victoria.

Cargo plane

A C17 cargo aircraft of the US Airforce flew the fully assembled Seasprite across the Pacific delivering it to the Avalon Airport on February 10. In the same cargo hold was a military Apache attack helicopter.

• Naval personnel take a keen interest in the first of the Super Seasprite helicopters set to come to the RAN. Picture: SGT W Guthrie, PACC/ACT.

Three days later, February 13, the Seasprite went on display for the five days of the show.

It was in "static" display mode and came fitted with red-nosed Penguin missiles.

Company Pilots

Completion of the show saw Kaman's company pilots fly the aircraft to HMAS ALBATROSS from where the aircraft will eventually be operated by the newly commissioned 805 Squadron.

In ALBATROSS the helicopter will be the subject of systems integration, testing, training and operational evaluation.

Software

Kaman and its team of sub contractors are focussed on completing software development for the aircraft's integrated tactical avionics system.

The Australian Super Seasprites will operate from the RAN's eight ANZAC class frigates and other aircraft-capable ships.

Programs

Vice-president of Kaman's international programs, Mr Frank Widmann, said, "the SH-25 (A) will give the RAN what we believe to be the world's most capable and versatile maritime helicopter.

We're proud to open this new chapter in Australian naval airpower," he said.

***Below**: 805 Squadron, which had always been for fixed wing aircraft, was commissioned for the fourth time on 28 February 2001 under the Command of CMDR Anthony Dalton in preparation for the new helicopter. The first Seasprite was displayed, complete with the low-vis chequerboard and knight symbol of the Squadron. The guest of honour was Lady Nancy Bird-Walton, an aviation pioneer who in 1934 became the first Australian woman to earn a commercial pilot's licence at the age of 19. Eight former Commanding Officers of the Squadron attended the ceremony. (Slipstream Magazine Apr04).*

A proud element of the Navy's Fleet Air Arm was officially reborn with the fourth commissioning of 805 Squadron before naval dignitaries and families at HMAS ALBATROSS on Wednesday, February 28.

Destined to operate 11 new-generation Kaman Super Seasprite maritime attack helicopters, 805 Squadron will be shore-based at the Naval Air Station at Nowra, with the squadron ultimately providing the support base for Super Seasprite flights embarked in the Navy's fleet of Anzac class frigates.

The CO of 805 Squadron, CMDR Tony Dalton, spoke at the commissioning of how the squadron invokes a pioneering spirit epitomised by guest of honour Mrs Nancy Bird-Walton, herself an aviation pioneer who founded the Australian Women's Pilots' Association in 1950 which today has more than 600 members.

"Indeed, if you have ever tried to explain to an ex-naval fighter pilot that we are resurrecting 805 as an attack helicopter squadron, you too would realise just how the current generation of 805 Squadron personnel feel like pioneers," said CMDR Dalton in his commissioning speech.

"With a history dating back to 1940 and a track record of being among the front-runners in introducing angled flight deck operations and fighter jets at sea, 805 Squadron qualifies on both counts as a squadron with longevity and a healthy pioneering spirit."

According to CMDR Dalton, there's is no better person to back that up than Nancy Bird-Walton, who in 1934 became the first Australian woman to earn a commercial pilot's licence at age 19.

"I want to congratulate all those people in this famous squadron who have volunteered to be part of our Defence services, as it was probably never more important than it is today," said Ms Bird-Walton in her speech to the parade.

Maritime Commander, RADM Geoff Smith, also emphasised the vital role that 805 will take, with the new helicopters, once accepted, providing a significant boost to the fighting ability of the Anzac class frigates for the next 25 years.

"I guess I liken it to the christening of a baby.

It's the beginning of a new life, and although this

By
Michael Weaver

squadron has a great history - it's been decommissioned for a while now - we're bringing it back in a new role, so it's a very important day for the Navy," said RADM Smith.

"My feeling would be in maybe three years time, we'll have the squadron to its full strength and by that time the aircraft will be with us and we can get serious about getting the capability to sea.

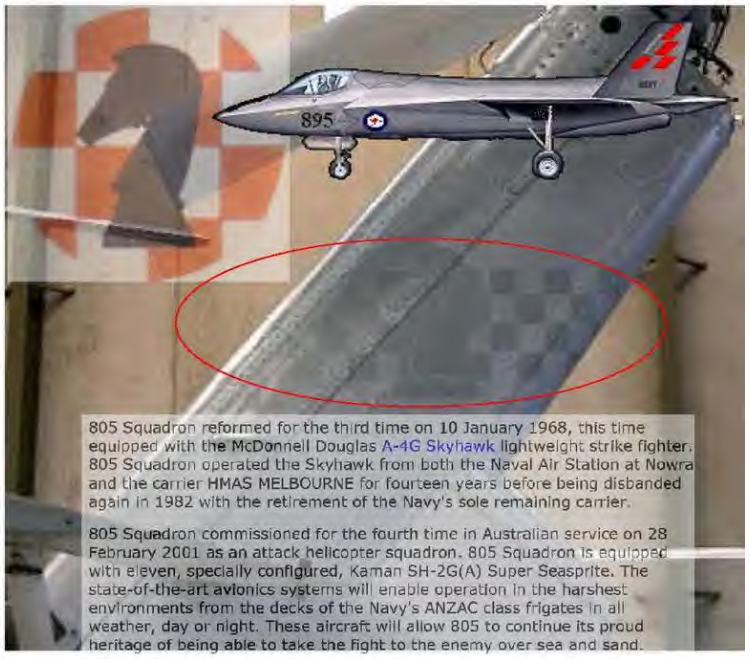
"It's a terrific capability and from an operational perspective where I sit, it's a must-have."

After blessings by PCHA Hubbard, (Anglican) PCHA Clayton (Protestant) and SCHA Rayner (Catholic), the squadron was officially commissioned before a host of official guests, including Chief of Navy, VADM David Shackleton, Maritime Commander, RADM Geoff Smith, Joanna Gash the Minister representing the Minister for Defence and Commander Australian Navy Aviation Group, CDRE Keith Eames.

Eight former COs of 805 Squadron also attended.

Despite light rain, all involved stayed on to witness a Ceremonial Sunset and Beat to Quarters that marked a spectacular completion to the function.

• Mrs. Bird-Walton and LSATA Hamish Dale cut th3e 805 Squadron commissioning cake. PICTURE: POPH Peter Simpson. NIU HMAS ALBATROSS.



805 Squadron reformed for the third time on 10 January 1968, this time equipped with the McDonnell Douglas A-4G Skyhawk lightweight strike fighter. 805 Squadron operated the Skyhawk from both the Naval Air Station at Nowra and the carrier HMAS MELBOURNE for fourteen years before being disbanded again in 1982 with the retirement of the Navy's sole remaining carrier.

805 Squadron commissioned for the fourth time in Australian service on 28 February 2001 as an attack helicopter squadron. 805 Squadron is equipped with eleven, specially configured, Kaman SH-2G(A) Super Seasprite. The state-of-the-art avionics systems will enable operation in the harshest environments from the decks of the Navy's ANZAC class frigates in all weather, day or night. These aircraft will allow 805 to continue its proud heritage of being able to take the fight to the enemy over sea and sand.

Low visibility knight and checkerboard on Seasprite tail

In the meantime, other airframes were arriving. No. 3 production aircraft arrived in Sydney harbour via the merchant ship "Talabot" on 10 January 2002, and was unloaded at midnight and flown to Nowra later that morning by Kaman pilot John McDonagle and SMA pilot, Mark Henschke. Also on the same vessel was No. 7 aircraft, which was only partly assembled and cocooned. It was transported by road to Albatross on 15 January for assembly by Kaman's sub-contractor on the ground, Safe-Air Limited. Four other aircraft were reportedly also with Safe-Air at the time. ***Left****: L-R. Neil Kelly, Keith Boot, Andy Rowe, John McDonagle, Jason Smith and Mark Henschke (ex-RAN test pilot). Photo courtesy of Kaman Aerospace.*

PROVISIONAL ACCEPTANCE. *Below: In late 2002 the Chief of Navy, VADM Chris Ritchie, refused Provisional acceptance of the aircraft as there were still significant shortcomings, but that decision was reversed the following year by the Minister of the Day, Robert Hill, who announced that Defence would accept it in an 'Interim Training Helicopter Configuration' – ostensibly to allow aircrew training to progress. One of the conditions of this configuration was that it could only be flown by qualified Flight Test personnel, however. which effectively negated training value for any other aircrew.*

The Display aircraft front view. Note the Penguin missiles. (RAN image).

Dear Ed

Contrary to what the readers may have read or heard, some very serious cracks have been discovered on a SH-2G Super Seasprite helo at HMAS *Albatross*.

John Gordon

Few regular Navy/FAAA publications of the time contained much Seasprite coverage, and Slipstream was no exception. The poor quality image on the left appeared in the June 2003 version with a brief note to say that severe cracking had been detected on one of the aircraft. No other reference to cracking has been found, however, so we can't throw any further light on it at this time. Interestingly, when Kaman refurbished the original SH2F airframes they had to do far more work than first anticipated. Reliable reports suggest that only about 30% of the original structure remained, mostly in the tail section – although the extensive work on the nose bay of the aircraft to the left suggests the cracking may have been there.

Next page. Navy News of November 2003 reports that the Seasprites had been provisionally accepted by the Government, but it failed to mention that such acceptance had been refused by the Chief of Navy the previous year. The provisional acceptance did allow the progression of further flight trials, however, and progress was made on the troublesome ITAS. In effect, it bought another three years of slow progress before more serious problems bubbled to the forefront.

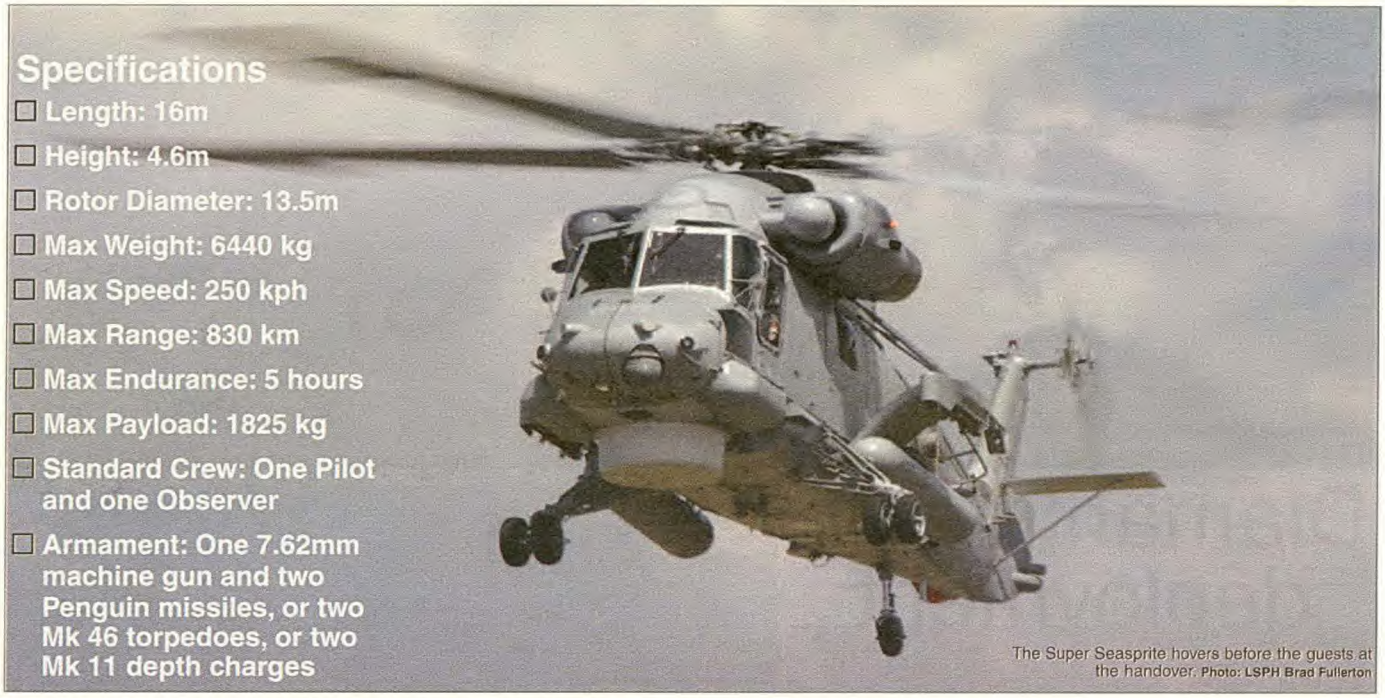
NAVY News

The official newspaper of the Royal Australian Navy

Volume 46, No. 20 November 6, 2003

Munitions Wharf opened Page 5

Who's coming home? Page 2



Specifications

- Length: 16m
- Height: 4.6m
- Rotor Diameter: 13.5m
- Max Weight: 6440 kg
- Max Speed: 250 kph
- Max Range: 830 km
- Max Endurance: 5 hours
- Max Payload: 1825 kg
- Standard Crew: One Pilot and one Observer
- Armament: One 7.62mm machine gun and two Penguin missiles, or two Mk 46 torpedoes, or two Mk 11 depth charges

The Super Seasprite hovers before the guests at the handover. Photo: LSPH Brad Fullerton

805 Sqn and Navy Flight Trials to conduct rigorous testing

LOOKING SPRITELY

By LS Rachel Irving

The RAN has provisionally accepted the first of eleven SH-2GA Super Seasprite maritime attack helicopters that will provide a long range air - surface warfare capability to the fleet.

The air-surface missiles they will carry will be the first such weapons the Navy has had in more than 20 years.

At a formal handover at HMAS *Albatross* (CAPT Simon Cullen), US company Kaman Aerospace International Corporation, officially delivered the first Super Seasprite to the Navy for testing, evaluation and training.

In front of an invited audience of about 200 guests and media, Mr Sal Bordonaro, vice-president of Kaman's Helicopter Programs, presented the Seasprite's log books to Minister for Defence Senator Robert Hill, symbolising the handover.

Senator Hill said the provisional acceptance of the first of the helicopters was a significant milestone in the $1.016 billion project.

Over the next year, 805 Squadron (CMDR Peter Ashworth) based at *Albatross* and Navy's Flight Trials Unit will conduct rigorous testing and trials of the Seasprite.

Continued page 3

Next page: *With the aircraft provisionally released – albeit with restrictions upon it – more of them were allocated to 805 Squadron. The photo below doubtless took pride of place somewhere in the Squadron building as it showed the aircraft types with which 805 had been equipped over the years: the Hawker Sea Fury on the right, De Havilland Sea Venom behind, the McDonnell-Douglas Skyhawk left and – at last – the Kaman SH2G(A) Seasprite. By then the old control tower had been demolished too – the new one can be seen in the background. (RAN image)*

Sea Sprite: History in Pictures. Page 15

***Left**: Seasprite 840 during First of Class Flight Trials (FOCFT) aboard HMAS Parramatta in May of 2004. FOCFT plays a very significant role in the introduction of a new helicopter type into service and involves the assessment of the ship, aircraft and equipment interfaces. A successful Trial results in certification of the vessel to operate that type of aircraft, and a specific Ship Helicopter Operating Limit (SHOL) within which the aircraft is cleared to fly to the ship for any given weight, relative wind and/or deck parameter (RAN image).*

Were you involved in the Seasprite era at all? Perhaps on 805 Squadron, or as Flight Test Aircrew, or in Project Sea 1411? If so we would love to hear from you with your story. What was the Seasprite like to fly/maintain? What were the highs and lows of your time? What was the mood? Please help by using the 'Contact Us' form at the foot of the page.

Next page.

In September 2004 the then Commanding Officer of 805 Squadron put an update into 'Slipstream' magazine, setting out the problems experienced thus far and the proposed way ahead. By then the FOCFT were complete and the Squadron was validating processes and publications. Interestingly, he also reported that non-Flight Test aircrew (i.e. instructors) had started training on the Seasprite. (Slipstream Sep04).

805 SQUADRON UPDATE

By Commander Peter Ashworth RAN
Commanding Officer

Most readers of *Slipstream* will be aware that 805 Squadron recommissioned in February 2001 in anticipation of accepting the first of eleven Kaman SH-2G(A) Super Seasprite helicopters by mid-2001. As widely reported in the media, the helicopter acquisition project was significantly delayed due to software development problems. So what happened?

In brief, the heart of the Seasprite combat system is the computer intensive `Integrated Tactical Avionics System', or `ITAS' as we call it. The role of ITAS is to gather data from all sensors and systems, integrate the data, and produce a comprehensive tactical information display on the four colour LCD displays - not unlike laptop computer screens. For example, the Observer (Tacco) might elect to display his navigation track and waypoints on one screen. He or she can then quickly overlay sensor data over the nav information, such as radar and ESM tracks. The crew can then filter unwanted information from the screens, or select radar tracks with a couple of mouse clicks and assign the track to a Penguin missile or to the Link 11 datalink, or to other systems. At the same time, the pilot will have all his flight information on one of his displays, and may be managing the datalink or monitoring aircraft systems or sensors on his second screen. ITAS is quite simply a revolutionary system that enables a two man crew to manage a similar array of sensors and systems as an eleven man crew does in a P-3 Orion. The days of `one system one display' are long gone.

Quite early in the project life it became evident that Litton, the sub-contractor responsible for developing ITAS software and hardware, was not going to meet project milestones. Eventually Kaman and Litton parted ways after the delivery of the first build of software. Build 1 software provides all of the flight systems that enable the aircraft to fly by day and night, but does not include the software to activate and control any weapons or sensors, such as FUR or radar, ESM and self-defence countermeasures. Comm's are limited to non-tactical V/LTHF and HF. Kaman has since contracted CSC Australia and Northrop Grumman (San Diego) to complete the tactical software packages (Builds 2 and 3) that will provide the full warfighting capability. Build 2 and 3 software is scheduled for delivery late 2004 for integration in the aircraft early 2005. The process of changing out sub-contractors for a major software development exercise essentially cost the program a considerable schedule slippage.

The troubles that have beset the Seasprite project are no different than those experienced by other contemporary software intensive projects. Aircraft such as the RN EH101 `Merlin' helicopter, RAAF AP-3C update, the USN Sikorsky SH-60R Seahawk, Eurofighter, F-22..... The fact that we are in such good company does not make the delays any more palatable or acceptable.

So where are we now? The Government would not accept any Seasprites until the Commonwealth could be confident that the contractor was capable of delivering the full tactically capable aircraft as specified in the contract. This assurance was gained in the third quarter of 2003, allowing the Navy to accept the first Seaprite in October last year. In the interim 805 Squadron reduced to 16 personnel whose role was to progress preparations for accepting and operating the new helicopters, and to complete mandatory customer inspections on aircraft as they were assembled.

805 Squadron commenced a steady ramp-up in personnel and activity from June 2003 to the present manning level of just over 60 personnel, with about another twenty personnel in or about to commence training. The Minister for Defence accepted the first Seasprite in the Squadron complex on 18 Oct 03, with flight training of the RAN test crew from AMAFTU commencing on 7 Nov 03. Since then a further three aircraft have been accepted at a rate of about one helicopter per month. The Seasprites are being accepted in an `Interim Training Helicopter' (ITH) configuration. Basically, they have Build 1 software although all hardware (including sensors and weapons systems) is physically fitted to the aircraft. This interim configuration is allowing 805 Squadron to progress maintainer and aircrew training, to validate processes and publications, and to progress a large amount of test and evaluation activity including sea trials on ANZAC Class frigates. The first group of RAN instructors (3 Pilot and 2 Tacco) commenced conversion training on 14 January this year. When the final tactical software build is loaded into the aircraft all squadron personnel will complete bridging training onto tactical systems.

Those readers who had the opportunity to view the aircraft at the 2004 Nowra Show or the January museum air day (before it was washed out) would have been impressed by the level of technology and combat capability in the aircraft. It is certainly a world away from the equipment that many of us were familiar with in the 1960/70's era Trackers, Skyhawks and Sea Kings. In summary, the aircraft includes all of the capability that we ever wanted to take to sea - imaging radar, turret mounted FUR camera, ESM, laser illumination warner, missile approach warner, chaff and flare countermeasures dispensing, satellite communications, Link 11 datalink and the `war dart' - the Penguin anti-shipping missile. And all of these systems fully integrated and presented on screens more closely resembling a Play Station or laptop computer than previous aircraft types.

Those of us who are lucky enough to be a part of the current `fourth generation' 805 Squadron are mindful of the proud history of the squadron and look forward to the challenge of maintaining the standards set by our forebears. We also need to ensure that the squadron history is both preserved and displayed. To that end I would like to establish some displays of significant 805 squadron memorabilia and photographs around the squadron facilities. Any donations from previous members would be warmly welcomed. Contributions may be forwarded to `805 Squadron History', NAS Nowra, NSW, 2540. I am also keen to learn of previous 805 Squadron formation or section callsigns (other than `Checkmate') used with previous aircraft types. We will always maintain the primary `Checkmate' callsign, but we need to establish an alternate and I would prefer to use a previous squadron tag. Information can be mailed to the Squadron or emailed to: **sqn805n,hotmail.com**

Photograph by POPH Shane Cameron—Courtesy RAN Photographic Section

Top. *Images of Squadron aircraft at the time.* ***Centre****: Aircraft from 805, 723, 817 and 816 Squadrons on the runway, just prior to the flypast for the departing Maritime Commander (Australia), RADM Raydon Gates. The picture is unusual as it captures all of the helicopter types in service at the time: Three Seahawks, three Squirrels, one Sea King and two Seasprites.* ***Bottom****: Some of the aircrew involved in the flypast. [1] Phil Livingstone [2] Nick Hipworth [3] CPOA James Bond [4] Phil Lewellyn [5] Dave "Fozzy" Milnes [6] Don Dezentje [7] Tim Bolitho [8] Michael Kirby [9] CPOA Owen "Fluff" Garrigan [10] Geoff Ledger [11] Matt Goodall [12] Brad White (CO805) [13] Mike Waddell [14] Chris Smith [15] Nick Hattersley [16] Mark "Miz" Henschke [17] Alan Tenbruggencate [18] Andrew Riches [19] Phil 'Wacka' Payne [20] Paul "Ninja" Hannigan RN [21] Todd Glynn [22] Al Byrne [23] Ryan "Rhino" Jose [24] Dean "Dog" Martin [25] Blue Rose. (Navy images via Al Byrne).*

An 805 SQN Seasprite during transit to Sydney for a Fly Past for the departing Maritime Commander Australia. No date was captioned, but it could either have been in June of 2004 (for RADM Raydon Gates), or in July 2005 (for RADM Rowan Moffit). Sydney CBD is in the background.

***Left**: One of the last photographs available to us of Seasprites in Service. The FOCFT was undertaken in early 2004 and an Australian Military Type Certification was issued later that year. Some progress had been made in ITAS integration too, although it was slow. By late 2005 nine had been delivered – but in May 2006 they were grounded for problems with the Automatic Flight Control System, which was subject to 'hard-overs' that, in the view of Australia, represented a significant and unacceptable threat to the safety of the aircraft.*

The fleet languished in a hangar for a year with significant doubts as to its ongoing viability, but in May of 2007 the Liberal Government announced it was committed to the project. It was a short lived reprieve: the Rudd Labour Government was elected at the end of that year and one of its first actions was to call for a full review. With the seeds of the Global Financial Crisis approaching there was little confidence that the troubled project could be saved without ongoing risk and expense. In March of 2008 it was cancelled.

It remained only to tidy up and pack up, with the Seasprite airframes being shrink-wrapped and shipped back to the States.

805 Squadron was decommissioned on 26 June 2008. The Navy News article on the left put a positive spin on the situation, but in truth it must have been a frustrating seven-year roller coaster of highs and lows. Below: The White Ensign is lowered on the Squadron, prior to being folded and handed to the Commanding Officer, LCDR Matt Royals, and Chief of Navy VADM Russ Shalders cuts the decommissioning cake.

Australian Government reaches agreement with Kaman over Seasprite project termination

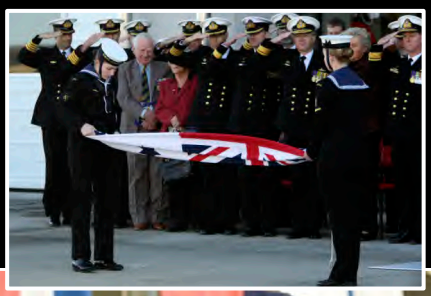
On 5 March 2008 the Government announced its intention to cancel the Seasprite helicopter project.

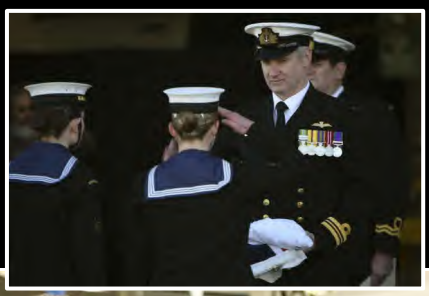
A satisfactory conclusion to the Seasprite project has now been agreed with the contractor, Kaman, to cancel the project on mutually agreed terms. An agreement has today been signed between the Australian Government and the contractor setting out the agreed terms. The agreement has some confidential aspects, however I can say that, subject to US Government approval, the project deliverables including the aircraft, training equipment and spare parts would be returned to Kaman for sale on the open market. The Australian Government and Kaman would share in the profits of subsequent sales.

Under the agreement, the Australian Government will receive at least 50 per cent of the proceeds from any sale of the helicopters by Kaman with a guaranteed financial return from Kaman of $39.5 million. In addition a further $30 million worth of spares will be retained for use on the Seahawk and Black Hawk helicopter fleets.

Further, the Australian Government has saved $150 million that would otherwise have been spent on the Seasprite project that will now be available for use on other capability.

Minister for Defence Joel Fitzgibbon said that he was pleased that the early resolution that had been achieved by the Australian negotiating team removes the uncertainty





ALBATROSS NAVY THE SAILORS' PAPER NAVY 13

Over sea and sand no longer

By Michael Brooke

805 SQN decommissioned at *HMAS Albatross* in a ceremony on 26 June, after seven years of providing valuable training to Navy personnel. The majority of her highly-skilled people having recently posted to 816 SQN, 817 SQN and 723 SQN.

The decommissioning ceremony was attended by Greg Combet, the Parliamentary Secretary for Defence Procurement, the former Chief of Navy, VADM Russ Shalders AO, CSC, RAN and about 100 current and past members of 805 SQN.

It is the sailors and officers whose actions and memories will speak for 805 SQN long after today's decommissioning.'

– LCDR Matthew Royals, Commanding Officer 805 SQN.

Amid very gusty winds that blew more than a dozen hats from the heads of sailors, 805 SQN's Australian White Ensign was lowered and handed to the CO, LCDR Matt Royals.

LCDR Royals said the decommissioning ceremony acknowledged the 250 assorted RAN personnel and APS staff, who served during the seven years the squadron was in service with pride and devotion.

"Each of these members has sculpted the exceptional work ethic and camaraderie that has become synonymous with 805 Squadron," he said.

LCDR Royals said the hardships associated with the Seasprite helicopter project had not deterred the men and women of the squadron from doing their job "bloody well".

LCDR Royals said as with all ships and squadrons of the Navy, 805 SQN's reputation was built on the people – "and not the aircraft you see in the hangar today."

"It is the sailors and officers whose actions and memories will speak for 805 SQN long after today's decommissioning," he said.

LCDR Royals said within a few years another 805 SQN may be formed, coinciding with the introduction into service of new RAN fighting helicopters.

"If so, the next incarnation of 805 SQN will play a key role in the introduction of a host of new capabilities into the RAN and the Fleet Air Arm," he said.

"That process will no doubt deliver new challenges and rely on the experiences of many here today to continue to build a bigger, better reputation for future generations of officers and sailors."

LCDR Royals said the Officers, sailors and staff of 805 SQN who devoted their efforts to maintaining such high standards truly set the benchmark by which all others will be judged.

The Parliamentary Secretary for Defence Procurement said the current 805 SQN was re-commissioned in 2001 to be equipped with a fleet of 11 Seasprite attack helicopters.

Mr Combet said the past and present members of the squadron had achieved a number of good results despite difficult circumstances.

"The limited release achieved by the Seasprite helicopters enabled Navy to train personnel at HMAS *Albatross* in aeroskills and mechanical expertise, with 29 attaining qualifications as aeronautical maintenance tradespeople," he said.

The squadron has also helped raise more than $15,000 for the children's charity Camp Quality through a marathon bike ride in regional NSW.

Due to ongoing delays, the Federal Government has decided not to continue with the aircraft, with the helicopters being sold under an agreement with the manufacturer Kaman.

805 SQN originally formed in 1940 and served in WWII before switching focus to maritime search and strike.

The 805 Squadron Crest depicts blue and white waves representing navy, sea and heraldic principles.

The orange represents the desert of Libya, with the Palm Trees representing the native trees of the Libyan area.

The motto 'Over Sea and Sand' alludes to the areas flown over by the squadron in World War II.

LAST HURRAH: VADM Russ Shalders, AO, CSC, RAN and 805 Squadron member ABATA Paul Geutjes cut the decommissioning cake.
Photo: LSPH Kel Hockey.

Photo: CPOPH Kev Bristow

DECOMMISSIONED: Guard Commander LEUT Carl McGarrity from 723SQN at ease during decommissioning ceremony for 805 Sqdn.

NZ buys Australia's reject helicopters AAP 19 Apr 2013

"THE New Zealand government has approved spending $NZ242 million ($A199 million) on buying eight navy helicopters the Australians didn't want because they were potential disasters. The eight new Seasprites will replace the navy's existing fleet of five ageing Seasprites, NZ Defence Minister Jonathan Coleman said on Friday. The first three will arrive late next year.

Australia tried for more than 10 years to make the Seasprites work, but cancelled the order for 11 helicopters in 2008. An audit of the $A1.4 billion ($NZ1.7b) project found the helicopters had a failure rate assessed at up to 20,000 times greater than air regulations allowed. The Seasprite's crash worthiness was below contemporary standards, it could not be flown in bad weather, the cockpit was too small for some crewmen and the advanced computerised combat system never worked properly. The computerised flight control system also tended to make unpredictable movements of flight controls, known as hard-overs.

Dr Coleman said the Defence Force and Ministry of Defence were "acutely aware" of the Australians' problems with the Seasprite. Australia had wanted its helicopters to be flown by a crew of two, but New Zealand would fly with crews of three and not need the "no-hands" technology. All other technical issues have been resolved by the manufacturer Kaman, he said. The Ministry of Defence had also invested "considerable resources" over two years in looking into the Seasprites, including an independent study by Canada's Marinvent Corporation. The ministry believed the Seasprites would "prove a very capable purchase, meet all of the New Zealand Defence Force's requirements, and can be introduced into service".

"What's more the price is very good with alternative helicopter replacements costing three times the amount." Defence Force pilots had flown the helicopter and were impressed by the step-up, Dr Coleman said. The entire Seasprite fleet, made from refurbished former US Navy airframes, has a total of 1200 flying hours. They have a service life of another 17 years."

***Above**. The unwanted Seasprite SH2G(A) airframes in Kaman's facility in Bloomfield, CT. What can't be seen is the "For Sale" sign. (Kaman image). The deal was that Australia would get 50% of any subsequent sale. Kaman, however, was wooing anyone who would buy the returned airframes and the New Zealand government was knocking on the door, looking to replace its ageing SH2F models. The ex-Australian 'G's (although by then they were designated 'I's) were available with an extensive range of sensors, fitted for Penguin missiles, and at a bargain-basement price. The deal was struck and by 2015 the Kiwis were enjoying the new aircraft, as depicted in the photos on the following page. They even had a postage stamp struck in honour of the aircraft!*

Ceremony to mark delivery of three SH-2G(I) Seasprite helicopters to New Zealand 06 Mar 2015

Kaman Aerospace Industries officially handed over the first three of eight SH-2G(I) Seasprite helicopters (NZ3611/NZ3612/NZ3613) to No. 6 Squadron at RNZAF Base Auckland today.

Photos: New Zealand Defence Force

Alert 5

Military Aviation News

The HMNZS ENDEAVOUR crew release a load from the SH-2G(I) during the Ship's recent Safety and Readiness Check.

A 'BRIEF UPDATE' ON THE SH-2G(I) SUPER SEASPRITE...

WHERE DO I START?

By CPOHCM Dougie Greig

The beast that is the SH-2G(I) is nearing its operational introduction for the RNZN and its potential as a force multiplier for both the Air Force and the Navy is becoming increasingly realised. Every day we are gaining more knowledge and experience with this aircraft and its new capabilities and every day Future 35 is becoming less of an ideal and more of a reality.

The challenge for the Seasprite Transition Unit (STU) has been to explore and maximise the potential of these differences, while working with an aircraft that is structurally and mechanically the same as the current model. The only way to do this comprehensively is to start with a clean slate – assume nothing and question everything. Yet close consideration confirms that we are not looking to correct issues; indeed nothing is 'wrong' with the current model, practices or its application to the wider force. The question is instead 'Can we do this better?'

The core of the project is, from my point of view, the people. With the operators, facilitators and maintenance technicians all working together to release the capability of the SH-2G(I), it is everyone's investment in this that will enable the Naval Helicopter Force (NHF) to achieve great results in the weeks, months and years to come.

Everyday we are questioning if we can make the NHF more efficient at every scale and even the small changes are starting to add up.

As we now work through the Test and Development (T&D) and Operational Test and Evaluation (OT&E) phases the most noticeable enhancements are that of the new automatic flight control system and flight director functions and also how much smoother the SH-2G(I) is when airborne. Notable, however, have been the first taskings of the STU, in which the SH-2G(I) has assisted No. 6 Sqn and the current Seasprite to conduct the aviation Safety and Readiness Checks (SARC) for both HMNZS ENDEAVOUR and HMNZS CANTERBURY. Deck landings, vertical replenishments and winching to the flight deck have all now been completed.

While these taskings are still only part of the OT&E process, they do bring the SH-2G(I) closer to its operational introduction and certainly are a milestone in the grand scheme to embark the first SH-2G(I) next year. It is an achievement that the unit can be proud of and I can confidently say that we have set a solid foundation and launching pad for the future of Naval aviation. As we now start to link together all of the small pieces to make a bigger picture, things look bright for this plucky mixed bag of Air Force and Navy.

An SH-2G(I) makes its first landing on board HMNZS CANTERBURY in the Hauraki Gulf.

The SH-2(NZ) Seasprite helicopters in flight at RNZAF Base Auckland

NEW SEASPRITES A PLEASURE TO FLY

Two of the Seasprite Transition Units' SH-2G(I) Seasprite helicopters were put through their paces in formation flying last month and they performed spectacularly.

Pilot Lieutenant Vix Marais said the formation flights were conducted as part of the helicopters' test and development (T&D).

They were flown to ensure that Standard Operating Procedures, including things like formation positions, were sufficient and ironed out.

The formation flying was "really successful", with two flights of about an hour and a half each completed.

"The SH-2G(I)s are awesome to fly!" LT Marais said.

"They are really responsive and are really nice helicopters to fly."

And what remains of the Seasprites in Australia? Well, not much! The training airframe remaining at HMAS Albatross (top left) was burned at the fireground not long after the project was abandoned. Only two other morsels remain: one is near HMAS Creswell in NSW, (top right) where it is used for occasional adventure training for young officers, and the other (above) resides in the rolling hills of Majura, just outside of Canberra, on Federal Police land. Both are exposed to the elements and, in time, will disappear forever.