



Fleet Air Arm Association of Australia HERITAGE FEATURE

AS350B Flights in RAN Frigates

1985-1991 : Anything But Interim

By Brett Dowsing



Ray Martin 60 Minutes' interview Channel 9 1983: "So Navy Pilots are better than Air Force Pilots?"

Commodore Toz Dadswell AM RAN: "Anyone can land at (or take-off from) an airfield – little old grandmothers do it all the time."

Introduction

On 21 February 1985, two HC 723 Squadron AS 350B Squirrel helicopters embarked respectively in HMA Ships *Sydney* (Commander Russ Lamb, RAN) and *Canberra* (Commander Chris Oxenbould, RAN) in the Eastern Australian Exercise Areas off Jervis Bay, NSW. The maintenance personnel, along with their supporting equipment had been embarked in their ships whilst alongside in *Sydney* over the previous weekend. Squadron executives and Fleet Aviation personnel were also embarked to work-up and certify the ships as safe to operate helicopters.

These were the first AS 350 Flights embarked in HMA Ships and the commencement of interim Flights pending the acquisition and integration of Sikorsky S-70B-2 Seahawk Flights, anticipated to occur in the early 1990s. Interestingly, along with the S-70B-2 Seahawk, on 1 December 2017 the AS 350 Squirrel was retired from the Fleet Air Arm inventory after its initial arrival at NAS Nowra on 21 May 1984. The Squirrel had therefore served in the RAN for 33 years and had more than achieved status above and beyond what was initially envisaged – it was much more than an interim capability.

Background

Six Oliver Hazard Perry Class Fast Frigate Guided Missile Ships (FFG) were ordered by the Government of Australia over the period 1976-1980 but without a commensurate order for an appropriate helicopter. The USN were embarking SH-60B Seahawk helicopters, however it wasn't until October 1984 and May 1986 that Australia ordered two tranches of eight S-70B-2 variants of the Sikorsky SH-60B with an expectation of their entering service mid-1989. Thus when the first FFG, HMAS *Adelaide* (Commander Jim Longden, RAN), sailed into Sydney on 16 December 1981, she did so with a Wessex 31B helicopter (flown on by Lieutenant Marcus Peake, RAN) lashed down on her flight deck for ceremonial purposes.



Wessex 31B embarked in HMAS Adelaide for inaugural arrival in Sydney 16 December 1981. The FFG class were procured without an associated helicopter and the Wessex was too big to fit in the hangar, so another interim capability was necessary until a dedicated helicopter could be procured.

This anticipated capability gap of eight years, and the need for the FAA to transition from embarked squadrons operating from aircraft carriers to single-ship flights, necessitated an interim capability. With the impending life of the UH-1B Iroquois and Bell 206B-1 Kiowa drawing to a close and unsuitability of Wessex 31B and Sea King 50A/B, a new aircraft was required that would build the RAN's small-ship aviation capabilities in preparation for the Seahawk.

AS 350B Squirrel Project

On 18 August 1982, the Australian Government ordered 18 French Aerospatiale AS350B Squirrel helicopters – 12 as basic helicopter trainers for RAAF and six upgraded aircraft for Navy. A further six, configured the same as those for the Navy, were ordered on 19 October 1983 for Search and Rescue duties at major Air Force bases. Lieutenant Commander Ken Vote, RAN, a highly experienced QHI, was instrumental in the selection process.

In early 1983, as part of this contract, a RAAF Project Team (with one Navy senior sailor maintainer - CPOATA Gerry Eastgate) was set up at the Aerospatiale plant located at Marignane airport some 15 km from the southern French port-city of Marseille. They were to certify the build, develop an appropriate spares inventory, and co-ordinate in-country training for a cadre of Navy and Air Force maintenance personnel and aircrew.

The First Aircraft

The first Navy Squirrel (N22-013) was formally handed over to Australia at Marignane on 30 November 1983 and utilised for the five Air Force and three Navy aircrew training through to early March 1984. The team of ten Navy maintainers completed their training at Marignane and Biarritz through to later in March 1984 before returning to Australia and prepare for the arrival of the aircraft, scheduled to commence two months later in May.

Delivered along with batches of Air Force Squirrels in B707 flights from France to Canberra, Navy's six aircraft were re-assembled and test flown before the quick hop to NAS Nowra. On 21 May 1984, N22-014 was flown to NAS Nowra by Lieutenant Commanders Jim Llewellyn (trained in France) and Geoff Ledger (qualified on AS 350 during exchange with RSAF). By mid-July, all six aircraft had joined HC 723 Squadron under the command of Lieutenant Commander Cris George, RAN.

The arrival of the Squirrels on HC 723 Squadron in 1984 coincided with arguably the low-point in the FAA's more recent history – the decision not to acquire a replacement carrier for HMAS *Melbourne* and the dissolution of the associated fixed-wing capabilities. Few appreciated the challenges associated with the generation of the small-ship aviation capability and few thought it relevant until the more operationally capable Seahawk was available. Small-ship or non-carrier aviation experience was limited to the occasional Wessex, Sea King or Iroquois detachments in HMA Ships *Stalwart* or *Tobruk* or the fully integrated Kiowa flight in the hydrographic ship, HMAS *Moresby*.

Operating as a warfare system within an FFG's capability would require a much more capability-focussed approach and warfare skill set, even with a limited helicopter such as the Squirrel. No other Navy in the world, including that of France, had operated the Squirrel in a tactical role or otherwise in surface combatants. As such, HC 723 set about simultaneously training aircrew and maintainers on type, developing shipboard procedures and utility capabilities, exploring some basic tactical capabilities, validating maintenance and support inventories including documentation, and preparing for First-of-Class Flight Trials (FOCFT). The approach, from a Squadron perspective, was one of "crawl, walk, run." The inclusion of an Aerospatiale technical adviser at HC 723 (Monsieur Jean-Claude Reboulet) was a welcome initiative.

At the time of the arrival of Squirrel on HC 723, the Squadron was operating five Iroquois, five Kiowa and two HS748 EWTS fixed-wing aircraft; the 13 Wessex previously on inventory had transferred to the newly commissioned HU 816 Squadron on 9 February 1984 to facilitate its counter-terrorism role.

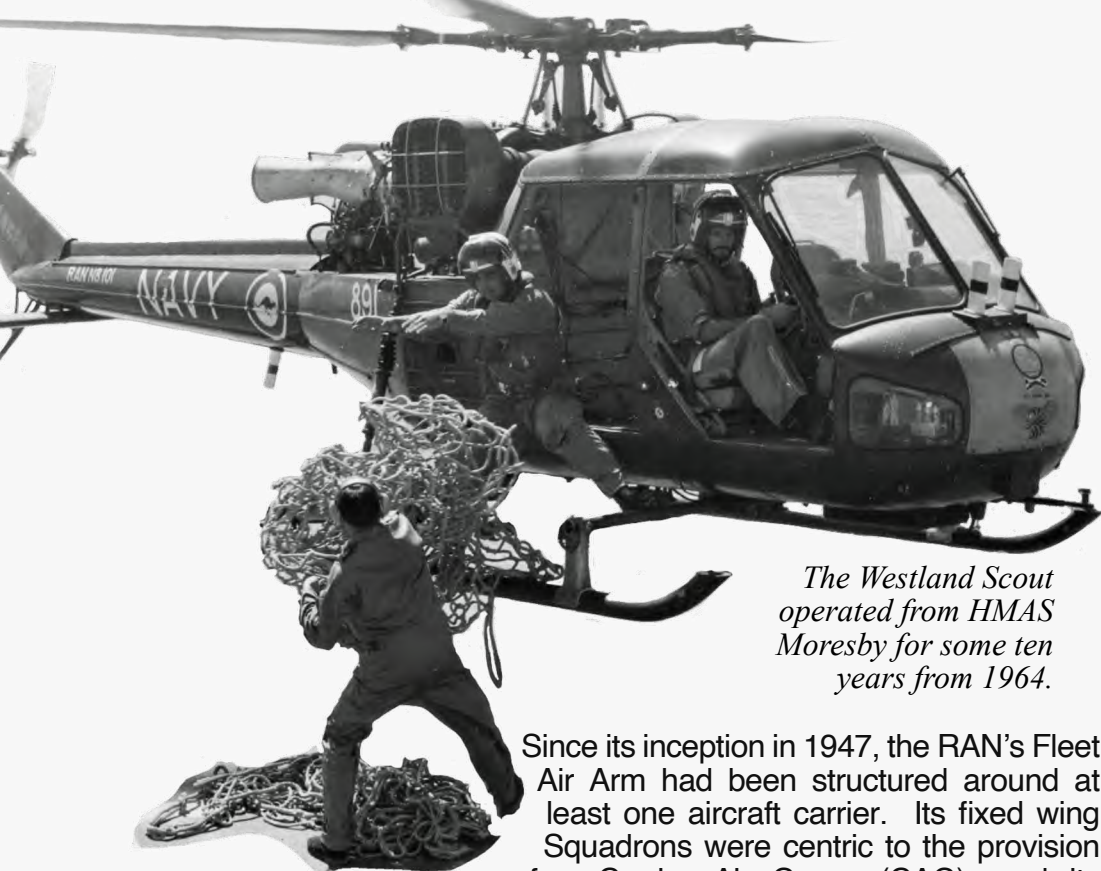


Top: The AS 350B Project Team at Marignane. CPOATA Gerry Eastgate second from right. Wing Commander Noel Wainwright, Project Director is seventh from left. **Centre:** The Navy aircrew and maintainers who underwent training in France at Marignane – February 1984. **Bottom:** Aircrew under training in Alpe d'Huez en-route to Mont Blanc in February 1984. L-R POA Guy Flower, LCDR Brett Dowsing, LCDR Jim Llewellyn. Images via Brett Dowsing.

Cris George recalls that almost immediately after their arrival on the Squadron in July 1984, pressure was on to get the Squirrels to sea in the FFGs, albeit with little appreciation of requirements. CDRE NAS (Commodore Neil Ralph, AM DSC, RAN), a distinguished naval aviator and Vietnam veteran, penned a letter outlining certification and training requirements to Fleet Headquarters prior to the embarkation of Squirrel Flights and that these were unlikely before mid-1985. To better prepare the FFGs for their Squirrel Flights and to assuage the long-denied FFGs of an aviation capability, HC 723 provided two separate Kiowa detachments for overseas deployments. The Kiowas were to become the "interim interim" Flights and were to play a vital role in early capability development.

THE ENVIRONMENT

A FLEET AIR ARM WITHOUT A JOB



The Westland Scout operated from HMAS Moresby for some ten years from 1964.

Since its inception in 1947, the RAN's Fleet Air Arm had been structured around at least one aircraft carrier. Its fixed wing Squadrons were centric to the provision of a Carrier Air Group (CAG), and its helicopter Squadrons provided carrier support in the form of Search and Rescue and anti-submarine protection.

Aside from occasional and random helicopter detachments to ships, the only other dedicated organic air capability was a single helicopter Flight aboard *HMAS Moresby*, a custom-built survey vessel displacing just 2500 tons based initially out of Sydney and then Fremantle.

Just prior to her commissioning in 1964 *Moresby* had been allocated a Westland Scout helicopter, which was a vital asset in the establishment of survey camps in the remote areas she would operate in. In 1974 the Scout was replaced by the Bell 206 Kiowa, which continued to provide reliable service until the ship's decommissioning in September 1997 - but it was restricted to operate in the most benign of conditions, and during daylight hours only.

The 1983 decision to scrap *Melbourne* without replacement removed the principal reason for the Fleet Air Arm's existence. To survive, it would have to learn to operate dedicated ships' flights to small decks for extended periods far from home: but it lacked the proper equipment, organisation or expertise to do so. A mammoth task lay ahead to not only re-equip with more suitable aircraft, but to build aircrew and maintainer skills to do so and the logistic support to enable them.

The FAA took a pragmatic approach to the problem. The equipment in its immediate inventory was either too big for small ships (Sea King, Wessex), or unsuitable (the Kiowa with its teetering head). The new AS350 was on order which, although not designed for dedicated maritime operations, offered an interim solution until the Seahawk S-70B arrived in 1989. But until these new airframes were operational there was little option except make do with what they had.

The immediate priority was to get aircraft to sea, even if it was under restrictive operational limits, and the task initially fell to the little Bell Kiowa.



Bell 206B Kiowa on the Flight Deck of HMAS Moresby. The Kiowa replaced the venerable Westland Scout in 1974 and provided sterling service to the ship until it finally paid off in 1997.

Personal Perspective by Paul Folkes

The First non-Morseby Detachment

Back in 1982, as a young Lieutenant, I was the Ops Officer for HC 723 "Bell Cell", with LCDR Mike Lehan as the OIC, later changed to HC 723 B Flight when Mike took over as CO. One of Bell Cell's main roles was ASAC training, for which we primarily used the UH-1 but also the B206.

This was the sad period following the demise of HMAS *Melbourne*, prior to arrival of the S-70B-2, and before the SK50 had deployed on small decks. Therefore, the RAN had no embarked assets other than the B206 on HMAS *Moresby*.

In Oct 1982, HC 723 was directed by the Fleet Commander to embark a B206 in HMAS *Stalwart* for support of the FC (RADM M. Hudson) and Fleet Staff during Ex Sandgroper '82, to be held off the coast of WA. I was chosen as the Flight Commander, SBLT Chris Tutin was the pilot, and CPO Ian Lockett was the FSMS. LEUT Col Allen also joined the Flight as the engineering and maintenance authority. LS Beck, and ABs Wilson, Cameron and Starrett made up the remainder of the team. On 27 Oct 1982, 'Stalwart Flight' embarked in HMAS *Stalwart* (CAPT Salmon, brother of the birdie) in Sydney Harbour with B206B-1 side number 896.

With the Fleet Staff embarked and flying the Flag of the Fleet Commander, *Stalwart* took a little over a week to get to Stirling Naval Base, with the Flight conducting various fleet support tasks along the way.

Fleet had decided that *Moresby's* Flight would also be seconded to *Stalwart* for the exercise and so, somewhere around 20 Nov 1982, *Moresby's* B206 arrived onboard, under the command of LEUT Tony Reyne. Now *Stalwart* had the entire embarked aviation assets of the RAN. Operating two B206s off *Stalwart's* deck required a bit of juggling but we managed to do it safely.

One funny moment from this period - during the exercise, *Stalwart's* two budgies were tasked for a dawn surface search in conjunction with an SH2F Sea Sprite from USS F.E. *Hammond*, hoping to catch an O boat snorting before approaching the force. Strung out line abreast at our visual limit, we all headed west, thinking that the Sea Sprite would be keeping an eye on us all. After reaching the western edge of our search area (by my calculations) but still pointed for South Africa, I informed the Yank that I thought we were getting near the edge of our area. His response "Ah, sir, what y'all using for your nav?" Me - "a USN Mk6 plotting board". Him - "Right, we'll follow you!"

After a quick trip back across the Bight, the aircraft disembarked from Flagship *Stalwart* on 07 Dec 1982 as she sailed past JB, with the maintenance team returning home once she got alongside in Sydney.

A short vignette in the history of the B206 in RAN service but one that helped to plug a gap in Navy's ability to get aviation assets to sea.



Success Detachment 1982. Top L-R: CPO Ian Lockett, ABATA Darren Wilson, ABATA Ernie Cameron, ABATC Jock Starret. Middle: LSATA Phil Beck. Bottom L-R: LEUTs Col Allen & Paul Folkes; SBLT Chris Tutin.

✈ THE PIONEERS ✈

KIOWAS, SQUIRRELS AND FRIGATES

Operating under a day, VFR (visual flight rules) HOSTAC SHOL (Helicopters Operating from Ships Other Than Aircraft Carriers, Ship Helicopter Operating Limits) envelope, the first frigate Kiowa detachment (N17-013) embarked in HMAS *Adelaide* (Captain Gerry Carwadine, RAN) on 30 April 1984. The Flight Commander was Lieutenant Mark Henschke and the inaugural Flight Senior Maintenance Sailor was CPOATA Dave Squillari. En-route for RIMPAC 84, HC 723 Senior Pilot, Lieutenant Commander Brett Dowsing, worked up the Detachment and ship, recommending certification prior to departing from Nuku'alofa, ten days later, enroute to Australia.

Having operated through RIMPAC 84 without incident and proving some surface surveillance capabilities for the ship, the Detachment disembarked to NAS Nowra on 20 July following the three month deployment.

The second Kiowa detachment (N17-013) embarked in HMAS *Sydney* (Commander Russ Lamb, RAN) on 7 August 1984 – the Flight Commander and Observer was Lieutenant John "Mini-Mac" McCormack, the Flight Pilot was Lieutenant Derek Frew and the FSMS was CPOATWL Chris Fitzgerald; Lieutenant Commander Leigh Costain, embarked for bridge watchkeeping qualification, was also qualified to fly the Kiowa. Again, Lieutenant Commander Dowsing worked up and recommended certifying the ship and Detachment before departing in Darwin, 10 days later.

Following a successful Asian and Western Australian deployment including for SANDGROPER 84, the Detachment returned to NAS Nowra on 22 November. With an Observer (Lieutenant John McCormack) also included in the Detachment, the tactical employment of this Kiowa was expanded over that previously.

The Detachments were largely welcomed and integration into the ships' companies relatively successful, but there were times, especially early in deployments, when some "lifting and separating" was required. It was largely a matter of exposure to the fragility and risks associated with aviation in the sea-borne environment, the necessity of all contributing to the outcomes of the ship and finding the compromise or priority in such situations. A lot was learnt on both sides of the divide and this was recognised with HMAS *Adelaide* taking out the premier Fleet prize (Gloucester Cup) and HC 723 Squadron the premier FAA prize (Collins Trophy) for 1985.

Squirrel Progress

While the Kiowa Detachments in FFGs were progressing the development of onboard procedures and basic tactics supporting the ships' warfighting capabilities, back at HC 723 the training of Squirrel Flight personnel was proceeding apace for early 1985 embarkations. First of Class Flight Trials were conducted, procedures publicised and training syllabii developed – it was a busy period in the Squadron, AMAFTU, DNAE and SAMR. And, of course, the FFGs were required for qualifying evolutions.

The first three FFGs delivered from American shipyards in 1980-82 were designated 'Flight I' ships, which had a slightly shorter flight deck with after capstans and bollards at Flight deck level. As such, these ships had diagonal approach markings and no Recovery and Securing, Traversing (RAST) system. The previously taught RN techniques were adjusted to the USN system after the arrival of HMAS *Darwin* in 1984 as a 'Flight III' ship with its up-the-stern approach technique, and the conversion of HMA Ships *Adelaide*, *Canberra* and *Sydney* to this configuration after 1986. HMA Ships *Melbourne* and *Newcastle* were built in Australia to Flight III configuration, joining the Fleet in 1992 and 1993 respectively.

The first embarkations of the Squirrel Flights in February 1985 marked a significant transition for the Fleet Air Arm. Helicopter operations were now very much the focus, and the priority was the instigation of an independent capability provided by a ship's aircraft and a combined capability of both assets working in unison. Utility operations by the Squirrel was relatively easily proven but warfare capabilities were much harder to demonstrate through a light helicopter. Nevertheless, the latter was a surprising and successful outcome due largely to the innovation of these early Squirrel Flights.

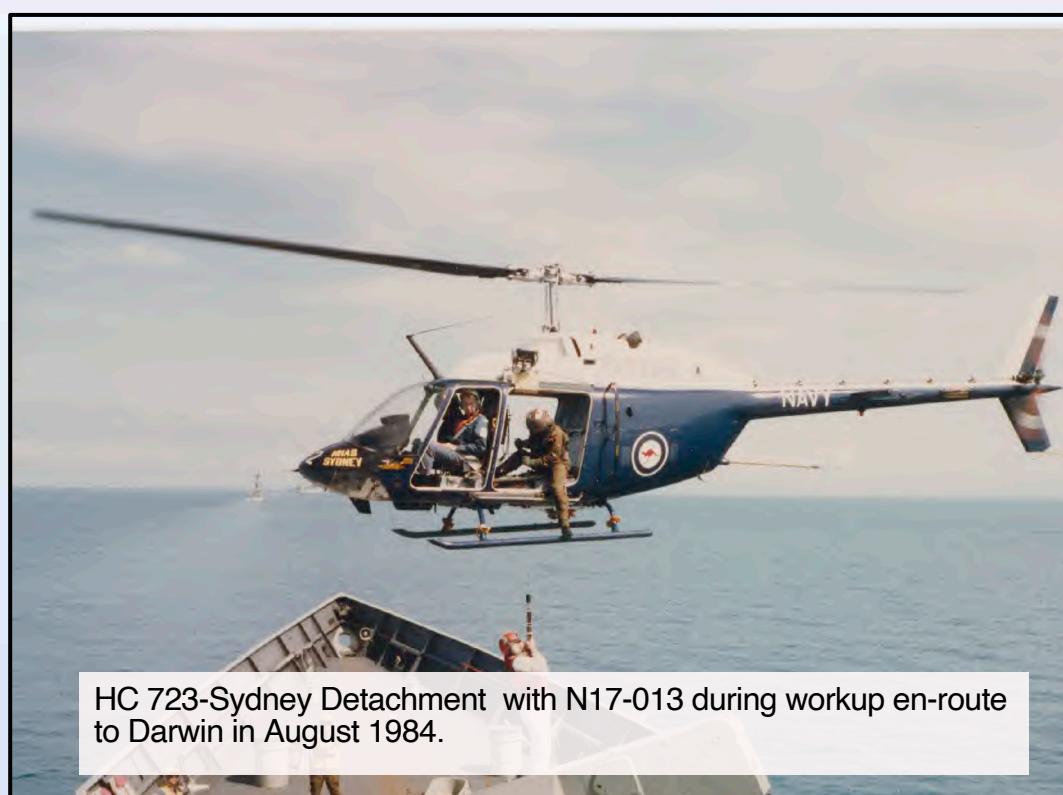
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HC 723-Adelaide Detachment in Nuku'alofa Harbour on completion of certification and en-route to RIMPAC 84.



Kiowa N17-013 lashed down on deck HMAS Adelaide. HMAS Parramatta is in the background.



HC 723-Sydney Detachment with N17-013 during workup en-route to Darwin in August 1984.



Left and Below.

Two rare photographs from Tony Reyne show an AS350 on the deck of HMAS Moresby. It is unlikely this was part of an official trial - rather, a tentative look to emphasise the impracticability of operating a Squirrel to this ship - the hangar would have required major modification to fit it.

Although the newer aircraft could have brought greater utility to the ship, the extensive work that would have been required to accommodate its larger airframe wasn't worth it, and more airframes would have been required. The B206 inventory was still strongly supported by both Navy and Army, so that type remained allocated to Moresby until its final decommissioning in 1997.



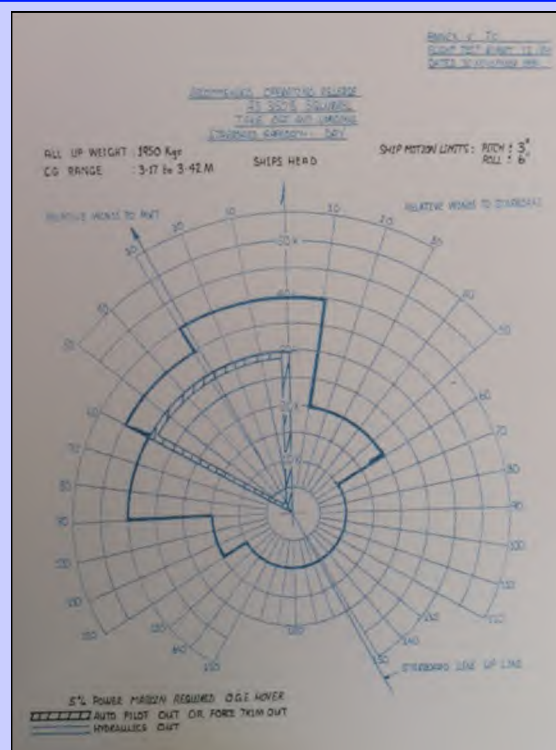
What is a FOCFT and a SHOL?

Helicopters operating to a ship's deck must do so within strict limits to ensure they are within their safe flying envelope. To determine these limits a "First of Class Flying Trial" (**FOCFT**) is conducted by a Test Pilot to check the handling of each type of aircraft at various weights and relative wind speeds across the ship's deck.

Essentially, the test pilot finds the limits of each combination of weight and relative wind where full and safe control of the aircraft can be maintained.

This allows a Ship Helicopter Operating Limit (**SHOL**) to be established, which is usually presented as a graph. Aircrew can quickly determine the safe relative wind speed and direction over the deck which is acceptable for the aircraft configuration for that sortie. The SHOL is also used by Officer of the Watch to establish the correct course and speed to set the required relative wind over the flight deck.

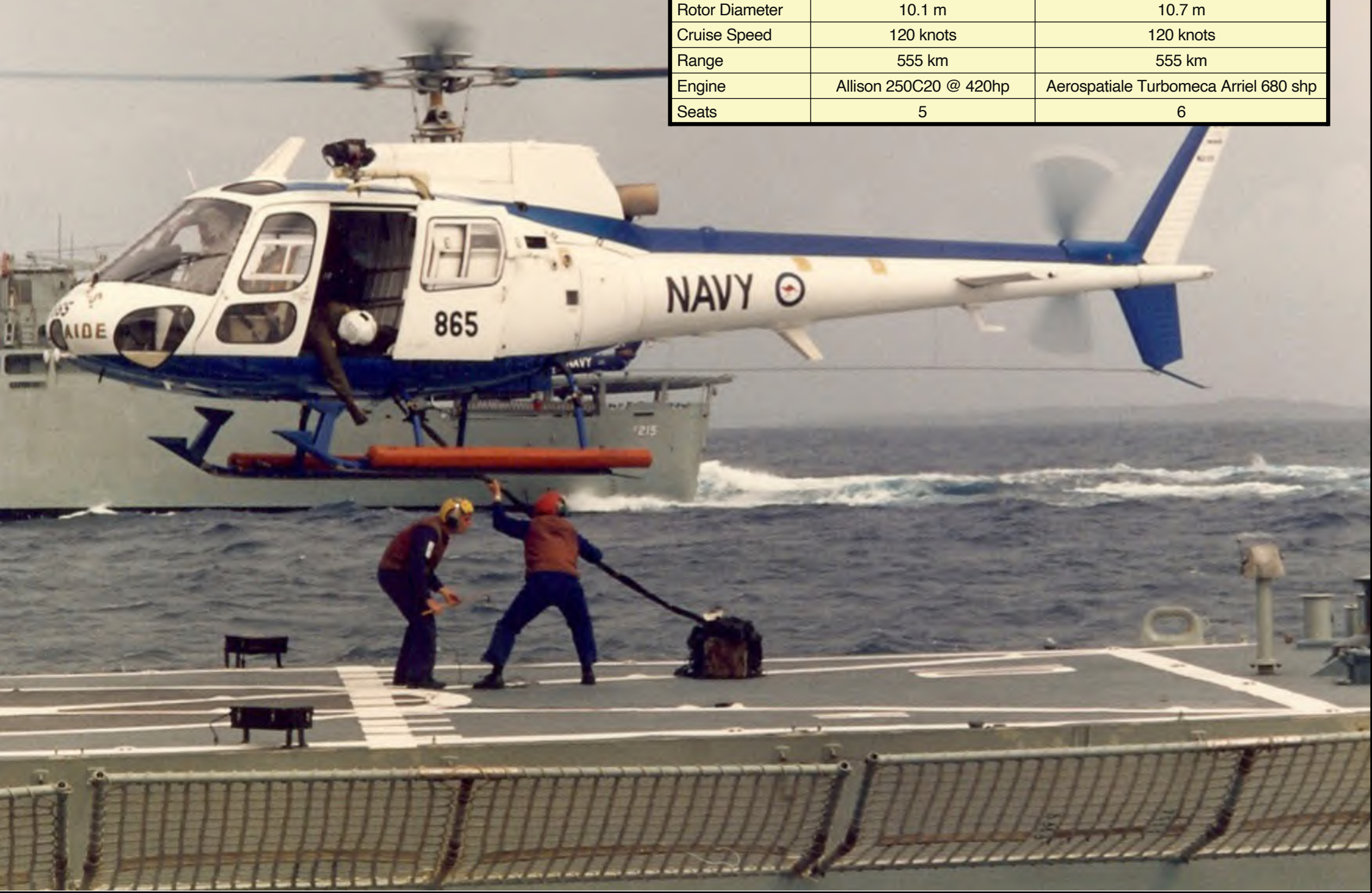
An example of a SHOL can be seen on the right.





Above. Although the Westland Scout was the first RAN helicopter to have a dedicated Flight at sea (aboard the survey ship HMAS Moresby) this was custom built for that particular task. It was the Bell 206B Kiowa (rearmost) and the Aerospatiale AS350B Squirrel (foreground) that were the pioneers for modern Flights embedded aboard RAN warships. **Below:** HC 723-Adelaide Flight conducting load lifting between HMA Ships Adelaide and Stalwart.

TYPE COMPARISON IN A NUTSHELL		
(Figures vary according to conditions)		
	Bell 206 B Kiowa	Aerospatiale AS350B Squirrel
First Delivered	October 1973	February 1984
Decommissioned	2000	December 2017
Length	12.1 m	13 m
Height	2.9 m	3.5m
Max Weight	1450 kg	2100 kg
Rotor Diameter	10.1 m	10.7 m
Cruise Speed	120 knots	120 knots
Range	555 km	555 km
Engine	Allison 250C20 @ 420hp	Aerospatiale Turbomeca Arriel 680 shp
Seats	5	6



These achievements were no mean feat acknowledging that the Squirrel was merely a light utility helicopter designed for operation in the civil environment. Nevertheless, this relatively simple, skidded aircraft was only modified slightly in Australia for shipboard operations. It's excellent semi-rigid rotor head, engine governing system and flight stability augmentation coupled with a good instrumentation system, enabled a reasonable day and night SHOL to start its operational service. Tactical augmentation then occurred through its life-of-type.

Perhaps the greater challenge resided within the FAA and it was the recognition that the FSMS of these isolated FAA elements were increasingly responsible for significant maintenance decisions without easy reference to engineering advice. Developing the training, protocols and trust associated with these decisions was warily accepted by the policy Directorate of Naval Air Engineering (DNAE) and Superintendent of Aviation Maintenance and Repair (SAMR). The achievements of the early FSMSs was instrumental in the success of the Squirrel at sea.

HMAS *Sydney*'s inaugural Squirrel Flight with N22-015 (862) was led by Lieutenant Ian Sangston who had just completed his AS 350 conversion post his 1984 B206 Detachment in *Adelaide*. The Flight's FSMS was CPOATWL Chris Fitzgerald; Commander Russ Lamb was still in command of *Sydney*. Lieutenant Commanders Brett Dowsing and Geoff Ledger worked up the ship and its Flight over the following week in the East Australian Exercise Area (EAXA).

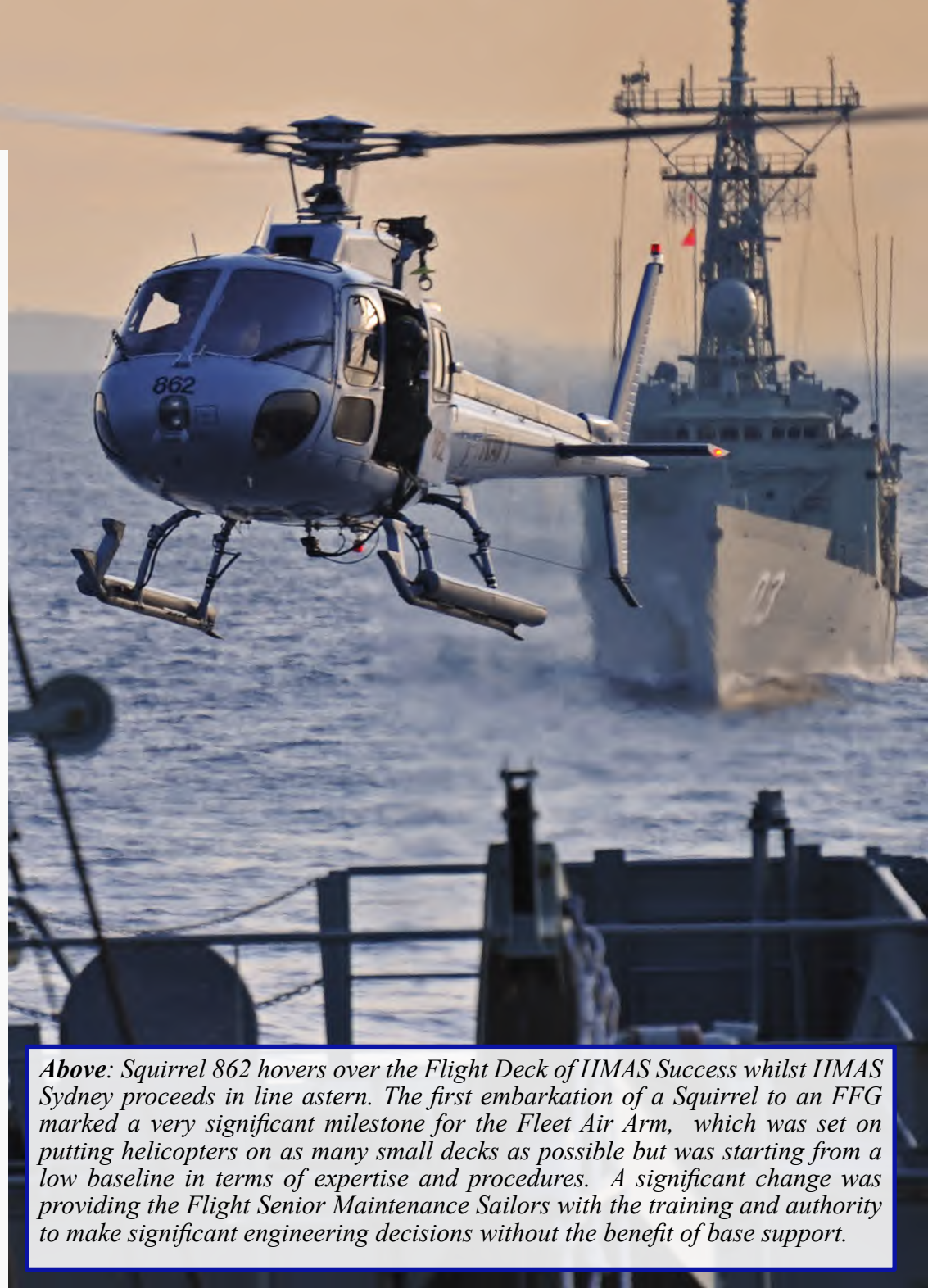
HMAS *Canberra*'s Flight with N22-017 (864) was led by Lieutenant Mick Galvin (Full Bridge Watch-keeping qualified) with CPOATC Steve Roberts, the FSMS. The Ship's Commanding Officer was Commander Chris Oxenbould, RAN. Lieutenant Commanders Cris George and Jim Llewellyn conducted the work-up over the same time as *Sydney*, in the EAXA.

Both ships were almost totally dedicated to aviation requirements over the work-ups, which were heavily skewed to night capability requirements. Both Flights were manned with junior aviators – Sub-lieutenant Kyle Stutterd in *Sydney* and Leading Seaman Rick Neville in *Canberra*. As such, the early emphasis in the Flights was for utility tasking and building the ship-helicopter operating procedures and confidences. As these confidences grew, these early Flights continued to expand the tactical exploitation of these low-radar profile and civilian-appearance helicopters.

On 23 April 1985, HMAS *Adelaide*'s Flight with N22-013 (860) embarked in the EAXA. Lieutenant Derek Frew (FBWC qualified) was the Flight Commander; Leading Seaman Josh Tahn was the Aircrewman; and CPOATA Dave Squillari was the FSMS. The Commanding Officer was Captain Gerry Carwadine, RAN, who had previously embarked a Kiowa Detachment. Again, this Ship and Flight were worked up by Lieutenant Commanders Brett Dowsing and Geoff Ledger.

Over the remainder of 1985, the three initial Flights were embarked for deployments in the Pacific and Indian Oceans, and throughout South East Asian ports. Major exercises included STARFISH, SANDGROPER and, of course, Fleet Concentration Periods. Back on HC 723 Squadron, training continued apace, lessons fed back by the Flights were documented, analysed and implemented formally. Importantly, the Squadron was proactive in injecting a much more professional component in CO/XO designate courses and in higher levels of engagement with the embarking ships' command teams. Similarly, Fleet Aviation staff at Maritime Headquarters ramped up their understanding of the policy and procedural requirements associated with certification and standards appropriate to effective and safe aviation operations in surface combatants.

On 17 January 1986, HMAS *Darwin*'s Flight with N22-017 (864) embarked in the EAXA. The Flight Commander was Lieutenant Stuart Harwood who was accompanied by Lieutenant Ian "Budgie" Parrott as Flight Observer and CPOATA Marty Mickosh as FSMS. Captain Hec Donohue, RAN was *Darwin*'s Commanding Officer. Both the Flight and the ship were worked up by Lieutenant Commander Geoff Ledger. Unfortunately, while en-route to RIMPAC 86, Lieutenant Harwood suffered an injury during a "Crossing-the-Line" ceremony and was required to return to Australia for medical care. He was replaced by Lieutenant Steve Nota, USN with his AS 350 conversion completed in the Hawaii environs by Lieutenant Commander Ledger over the period 26 May – 2 June. Lieutenant Harwood returned to *Darwin* Flight on 16 September following *Darwin*'s return to Australia.



Above: Squirrel 862 hovers over the Flight Deck of HMAS Success whilst HMAS Sydney proceeds in line astern. The first embarkation of a Squirrel to an FFG marked a very significant milestone for the Fleet Air Arm, which was set on putting helicopters on as many small decks as possible but was starting from a low baseline in terms of expertise and procedures. A significant change was providing the Flight Senior Maintenance Sailors with the training and authority to make significant engineering decisions without the benefit of base support.



HC 723-Sydney Flight with N22-015 February 1985. L-R rear row: FSMS CPOATWL Chris Fitzgerald, Flight Commander LEUT Ian Sangston, Flight Observer SBLT Kyle Stutterd.



HC 723-Adelaide Flight in April 1985. L-R rear row: CDRE Neil Ralph, Flight Commander LCDR Mike Galvin, FSMS CPOATC Steve Roberts with LCDR Cris George. POA Rick Neville is Centre of front row.



Left: Deck handling trials aboard HMAS Sydney. The Squirrel was never designed to be a dedicated shipborne helicopter, so much of how it would perform was an unknown: would there be problems moving it around deck? Would the plastic airframe stand up to the stresses of ship motion? What deck limits should be imposed?

In parallel were larger questions of certification and logistics. Flight Senior Maintenance Sailors would become the sign-off authority for the aircraft, a concept quite foreign to the old 'carrier based' FAA, so both training and policy frameworks had to be developed. Logistics needed to be organised too, with 'pack away kits' determined and resourced, and shore support frameworks built to ensure essential spares could be dispatched to remote Flights quickly.

Much of the success of the RAN's small ship flight journey was down to the measured and methodical way they were implemented: small steps to begin with.

Below: The first Flight embarked aboard an FFG in early '85, and by the end of that year two more were put to sea - a remarkable effort.



✈️ THE CONSOLIDATORS ✈️

BEDDING DOWN THE FFG FLIGHTS



From 1986 through to 1990, AS 350 Flights in the four FFGs were largely normalised. So, across the fleet of six Squirrels between 2-3 Flights were embarked with the other three aircraft facilitating training, maintenance and expanding flight envelopes in the FFGs, *Stalwart*, *Tobruk* and *Success*. Over the same period the three Flight I FFGs were converted to Flight III configuration.

This same period saw the embarked Squirrel exposed to a raft of new Commanding Officers, Principal Warfare Officers, Bridge Watch-keepers and Ships' Companies. A coterie of aircrew and maintainers experienced in embarked aviation were generated and there was a steady shift and enthusiasm to exploit tactical capabilities. This latter aspect was driven by an increasing number of Flights being manned with Observers. Also assisting in these developments were the significant numbers of Flight Commanders who had seamanship qualifications and Commanding Officers who had undergone PWO training in the Royal Navy with its advanced experience in embarked helicopter operations from combatants.

Over this period the Fleet Air Arm was also preparing for the arrival of the Sikorsky S-70B-2 Seahawk. Personnel had been sent to the USA to test and evaluate the aircraft, train on it and develop procedures for operating this purpose-built ASW/ASST capability. Back in Australia, the Seahawk Integration and Trials Unit (SITU) was raised under the command of Commander Tony Baker, RAN who was followed by Commander Alex Wright, RAN. The first Seahawk was delivered to SITU on 3 February 1989 with all sixteen at NAS Nowra prior to HS 816 Squadron commissioning 23 July 1992.

Left Upper and Middle. *The Squirrel quickly became a standard feature on the Flight Decks of RAN ships and was responsible for not only training a generation of aircrew and maintainers in small ship Flight operations, but ships' companies too. When the S70B Seahawk arrived in 1988 the ground work was largely done to allow seamless integration of a next-generation complex helicopter into the Fleet*

Left Bottom: *HMAS Darwin arriving from the USA in Flight III configuration having completed First of Class Flying Trials with HC723 Darwin Flight and AMAFTU enroute from Darwin Oct-Nov 1985 with N22-016.*

THE WARFIGHTERS

TAKING THE FLIGHTS INTO HARM'S WAY



By the middle of 1990 the strategic situation in the Middle East had deteriorated rapidly and on 2 August Iraq invaded Kuwait. On 12 August, in response to UN imposed sanctions on Iraq, the Hawke Government announced the deployment of HMA Ships *Adelaide* (Captain Bill Dovers, RAN), *Darwin* (Captain Russ Shalders, CSC, RAN) and *Success* (Captain Graham Sloper, RAN); the Commander Task Group 627.4 for Operation DAMASK 1 was Commodore Don Chalmers, AM, RAN.

Within a few days of this announcement, the ships departed Sydney and embarked their Squirrel Flights as they proceeded south-about for their deployment. Also joining the two FFGs were Seahawks from SITU before the S-70B-2 had even been accepted into operational service although one had just returned from trials in Hawaii embarked in HMAS *Darwin* for RIMPAC 90.

While the ships were familiar with Squirrel, they were not used to the more demanding requirements of the Seahawk nor operating two dissimilar embarked aircraft types. It was a learning time for all aboard but, with the focus of potential conflict, skills were honed and accommodation achieved.

For the Squirrels this was arguably the apogee of their thirty plus years of service in the Fleet Air Arm. The aircraft were painted in a drab blue-grey, had their pack-up kits augmented and were equipped with a tripod mount for a General Purpose Machine Guns (MAG58), a marine satellite navigation system, encrypted comms and Mode 4 IFF. The Flights were also equipped with body armour, pistols, night vision stabilised binoculars, laser protective goggles and emergency egress bottles.

Enroute during the deployment, the three Squirrels detached off Albany and flew to RAAF Base Pearce for fitting of MAG 58 machine guns and coding devices. They rejoined off Perth 22 August after the ships replenished at Fleet Base West.

TG 627.4 in-chopped for Operation DESERT SHIELD on 3 September 1990 with the Squirrel personnel as follows: HMAS *Adelaide* – Flight Commander Lieutenant Lance Godwin, Observer Lieutenant Darren Jose and FSMS CPOATA Dutch De Ruiter with N22-015; HMAS *Darwin* – Flight Commander Lieutenant Michael Rock, Pilot Lieutenant Jerry Butler and FSMS CPOATA Tony Emmett with N22-014; HMAS *Success* – Flight Commander Lieutenant Andy



HC 723-Sydney Flight on Australia Day 1991 immediately before conflict. Second to fourth rear row from Left are FSMS WO Mum Innes, Flight Commander LEUT Simon Thorn and Observer LEUT Ralph Illyes.



Whittaker, Observer Lieutenant Steve Elms and FSMS CPOATWL Geoff Arnold with N22-017.

The Australian Task Group operated in the Gulf of Oman and the Arabian Sea although *Success* later entered the Arabian Gulf. The Squirrel tasking was primarily directed to surface surveillance and identification associated with interception operations, and utility tasking. Both day and night flying were challenging with high ambient temperatures, hazy conditions and the high number of ships, both naval and merchant, in the area.

HMA Ships *Adelaide* and *Darwin* out-chopped from the Area of Operations on 3 December 1990 after they had handed over to HMA Ships *Brisbane* (Captain Chris Ritchie, RAN) and *Sydney* (Commander Lee Cordner, RAN). On the same day, Commodore Chris Oxenbould, RAN relieved Commodore Don Chalmers, RAN as CTG 627.4. Prior to departure for return passage to Australia, *Darwin* and *Success* swapped aircraft due to upcoming maintenance requirements – N22-014 supporting *Success* and N22-017 returning to Australia and disembarking to NAS Nowra on 21 December along with *Adelaide*'s N22-015.

Similar to her sister ships, *Sydney* had embarked a Squirrel and Seahawk Flight on departure from her home-port of Sydney on 12 November. Her Squirrel Flight Commander was Lieutenant Simon Thorne, Observer Lieutenant Ralph Illyes and FSMS CPO/WOATC Mum Innes with N22-013. Interestingly, over this period there were four AS 350 Flights deployed simultaneously, which really tested the resources and somewhat impacted training programs at HC 723 Squadron.

On 17 January 1991, Operation DESERT STORM commenced to drive the Iraqi Forces from Kuwait. The tanker HMAS *Westralia* (Commander John Moore, RAN), having loaded fuel in Geelong, departed Fleet Base West on 16 January arriving in the Area of Operations on 26 January. While she had a recently fitted Flight deck aft, she had no hanger and therefore no embarked aircraft. On 23 January, *Success* out-chopped from the AO and proceeded to Singapore before arriving in Sydney on 7 March. Her Squirrel Flight disembarked to NAS Nowra after 205 days deployed.

TG 627.4 was now the second iteration of Operation DAMASK and concentrated largely in the Arabian Gulf accompanying the four multinational battle groups based around the USN carrier groups. It was a very crowded AO during which the main activities for the Squirrels were search and identification, mine searching and providing aerial "top cover" during boarding operations. There was also, of course, the almost constant communications and utility flights throughout.

Conditions were challenging not only from combat conditions but environmentally – visibility was often near zero due to smog, oil and dirt and high ambient temperatures impacted engine and rotor performance. In turn, higher-level and constant maintenance was required to enable aircraft availability. With the Squirrel's low-radar cross-section and ready availability, six-hours' flying per day was common during this deployment.

Above: The boarding of the "Tadmur" on 8 October 1990. This was in compliance with the UN mandate to enforce trade sanctions against Iraq, following that country's invasion of Kuwait on 02 August. In this incident the Tadmur had been shadowed by HMS Brazen, working with HMAS Darwin. Despite repeated requests and warnings the vessel refused to stop and a decision was made to insert an armed boarding party of British Royal Marines by fast rope from Brazen's Lynx helicopter.

The two coalition warships coordinated the attack. Darwin's AS350, crewed by LEUTs Jeremy Butler (P) and Mike Rock (O) established a hover off the starboard beam to cover the Bridge and forward well deck with her GPMG. After advising that nothing untoward had been sighted, the Lynx was called in to insert the boarding party, which was accomplished in a minute or two. The Squirrel then remained in position providing observation and GPMG cover.

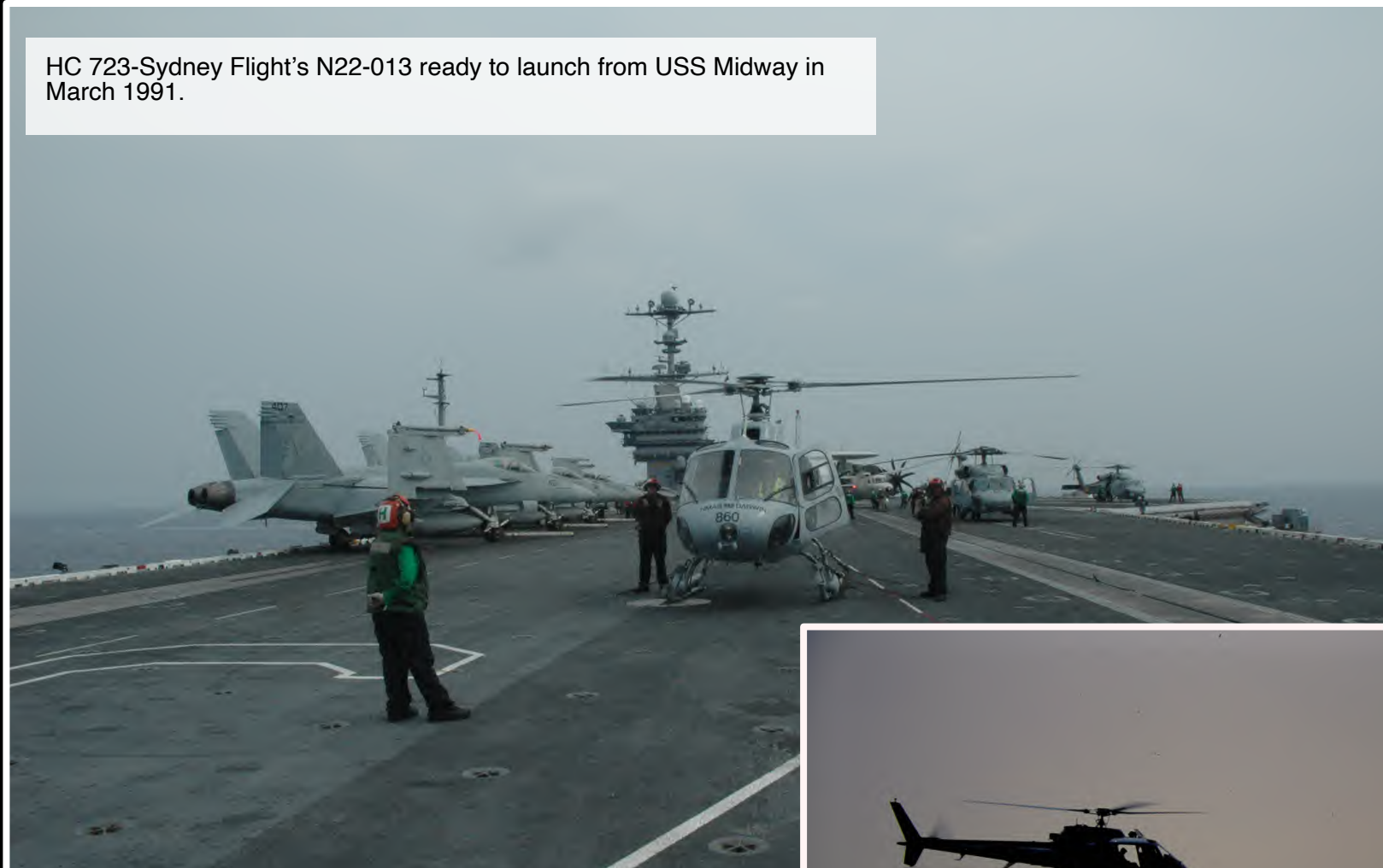
A search of the vessel revealed illegal cargo and it was diverted to Muscat, but word was received a day or two later that it had been mistakenly released, still with its contraband. She was again apprehended by coalition ships, and only after six tonnes of goods had been taken off her with the assistance of Adelaide's Seahawk was she allowed to proceed to Iraq.

This method of inserting the boarding party became a standard procedure for Australian FFGs carrying both a Seahawk and Squirrel helicopter, with the two working together as described above. It meant the merchant vessel did not need to slow down, and it avoided the risky evolution of attempting to board via a rope ladder.

These missions tested aircrews with the high traffic density, constantly being checked and identifying the surface picture, and relaying the information to "home-plate" or "mother" all the while in a real threat environment.

Kuwait was liberated on 26 February 1991 and HMA Ships *Brisbane* and *Sydney* out-chopped from the AO on 22 March – they arrived in Sydney to a tumultuous welcome on 22 April with *Sydney*'s aircraft returning to NAS Nowra that day for their own welcome home. HMAS *Westralia* returned to Fleet Base West on 9 June.

HC 723-Sydney Flight's N22-013 ready to launch from USS Midway in March 1991.



TG627.4 hand-over/take-over formation with embarked aircraft overhead – 3 December 1990.



The Sikorsky Seahawk appeared in the fleet just in time for Operation Damask, with some ships carrying both the Seahawk and a Squirrel.



Three AS 350s ranged in front of B Hangar HC 723 Squadron prior to deployment for Operation DAMASK 1 in August 1990.

✍️ **CONCLUSION** ✍️

THE LITTLE HELICOPTER WITH A BIG HEART

From the Gulf War through to the retirement of the S-70B-2 Seahawk in 2017, the RAN maintained a surface combatant presence in the Middle East AO continuously. AS 350 Flights continued to be deployed in FFGs through to Operation DAMASK 6 in 1993 to assist in enforcing United Nation's sanctions. The "Plastic Fantastic" had proven herself as a "Battle Budgie" and, after being released from Operation DAMASK duties, was increasingly deployed in Navy's other air capable ships both for training purposes and in support of program requirements over the remainder of her service life. Occasional deployments still occurred in FFGs as late as 2005, often in international or humanitarian missions.

As a continued endorsement of her understated capabilities and in recognition of her invaluable contribution to Navy's roles, eight AS 350s were transferred to HC 723 when the ADF Helicopter Flying Training School transitioned to Army and Navy conducting in-Service helicopter conversions in October 2000.

Over the life of the AS 350, Navy did not lose one single aircraft, a final and most fitting attestation to this remarkable and beloved helicopter that was acquired as an interim capability but carved out its own significant place in the history of the RAN's Fleet Air Arm. And, of course, a large tribute needs to be paid to the aircrew and maintainers who took up the challenges of introducing and developing the combatant aviation capability, which provided the bedrock for the Seahawk Flights. Without their persistence, innovation and enthusiasm, the current Fleet Air Arm would not be the integral warfighting capability it is today. The AS 350 Squirrel was never an "interim" – it proved to be an uplifting turning point in the Fleet Air Arm and the basis for its future history.



COMING NEXT The Personal Dimension - individuals' stories and memories of putting Flights to sea.



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