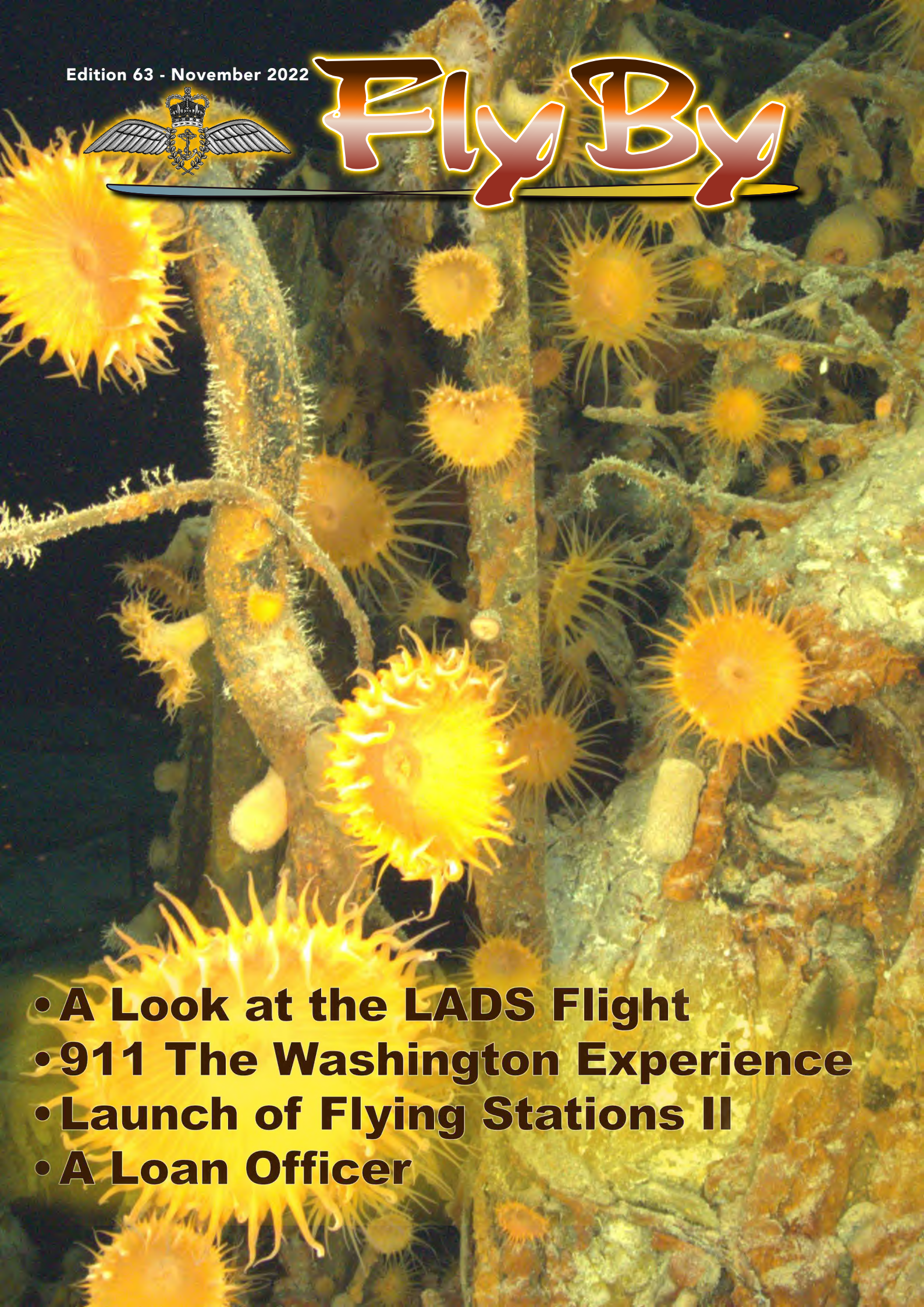
Edition 63 - November 2022

Fly By



- A Look at the LADS Flight
- 911 The Washington Experience
- Launch of Flying Stations II
- A Loan Officer

EDITORIAL

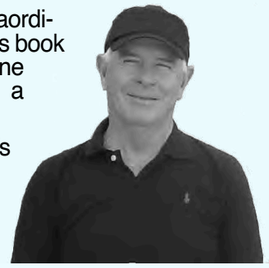
As the calendar clicked over to November, it brought a touch of nostalgia, as every month does, of anniversaries past. Most notably this month it's the sinking of HMAS *Sydney II* eighty one years ago, with the loss of all hands.

The wrecks of both the *Sydney* and the *Kormoran* were both discovered in March of 2008, and a further expedition was conducted in 2015 by Curtin University and the Western Australian Museum, during which both were extensively photographed. We are indebted to these institutions for permission to use the stunning image on the front cover of this month's *FlyBy*. It is, as the caption below says, a living wreath in memory of the souls of who lost their lives on that day, including the entire Walrus Flight.

On a quieter note, it's also the third anniversary of the conclusion of the LADS project - surely one of the most successful in the RAN's history. You'll find a great little story about LADS by **Steven Swayne** in this edition.

Turning to recent times, the weekend of 21/22 October saw a number of events occur in or around Nowra. They included the Australian Naval Institute's seminar on the FAA past and present; the book launch of "Flying Stations II", a Freedom entry march, an Albatross Open Day and last but not least our Annual General Meeting, otherwise known as the Federal Council Meeting. You'll find articles on all of these in the following pages.

Flying Stations II is the second volume of the unofficial history of our FAA. The last book ended in 1998 so it was time to bring the story up to date. I wish to make particular note of the efforts of **LCDR Desmond Woods** who with no birdie background has single-handedly orchestrated the extraordinary effort to bring this book to print. He has done the Fleet Air Arm a great service.



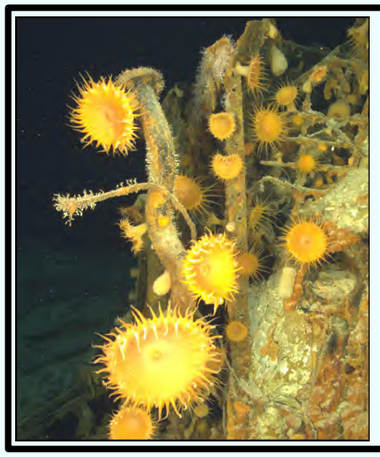
Other features in this edition are **Brett Dowsing's** account of what happened in the Australian Embassy in Washington on the day the Twin Towers came down - a rare insight from a FAA officer - and **Graeme Lunn's** account of the extraordinary life of Bill Henley, who fought in the arctic convoys and in the Suez conflict before serving a spell at RAAF Point Cook here in Oz. Both are fascinating reading.

I've had to set aside a couple of stories as there was so much to bring you in this edition. They'll be in the next, bumper (Christmas) edition I promise! Most notably the story of the FAA's contribution to Ismailia brought to you by **Geoff Ledger** and colleagues, which was a somewhat secluded part of our history.

Finally, you'll note the new 'double-page' layout for this edition of *FlyBy*. Let me know what you think!

Until next time, stay safe.

Marcus Peake. ✈



Main Cover:

Like a living wreath in memory of the men who lost their lives there, deep sea anemones (Actiniaria) flourish on on the wrecks of HMAS Sydney II and the Kormoran.

Image courtesy of WA Museum/Curtin University.

CONTENTS

Dear Editor

I am writing this email to inform you with great pleasure that I received a phone call from the Navy today, and a long story short I have been accepted to become an aircraft technician. Then I would be able to, as you would know, transfer to become an officer and a pilot; but, it is a good step in the right direction, getting me closer to my ultimate goal of being a helicopter pilot in the RAN. My enlistment date and I leave for HMAS Cerberus for recruit training is on the 20th of February 2023; so of course, I will be here for the FAAAA Christmas gatherings and the January meeting. I finish school on the 27 of October 2022.

I would like to take this opportunity to thank you and everyone at the FAAAA for your support and encouraging words.

Thank you.

Regards, **Kalell Kemp.**

By Editor, Kalell, is our youngest member and ever since we have known him he has been determined to join the Navy to fly helicopters. We received the above letter in mid October, so he is on his way! We wish him all the very best in the journey ahead.✈

Dear Editor,

Veterans and serving members of the RAN are cordially invited to attend the Memorial Service for former CNS **VADM Ian MacDougall** AC AFSM to be held at 1000 on 24 November 2022 at the Garden Island Chapel HMAS *Kuttabul*. VADM MacDougall died during the Covid pandemic lock down and no service was possible at the time.

Shuttle Buses will run to the chapel from the *Kuttabul* Cowper Wharf Road gangway from 0920. Please ask all those planning to attend to register their intention with the Commanding Officer's Secretary AB Ben Lovett on email **here**, and indicate if they need to be allocated car parking on board. The very restricted parking near the chapel will be limited to senior officers and to the MacDougall family and those with mobility difficulties. The latter will need to provide car registration numbers with their registration. There will be lift operating to take members using wheelchairs to the chapel from ground level.

After the service the MacDougall family's reception for all those attending the service will be at the nearby Naval Heritage Centre from 1100 to 1215. Shuttle buses will then return guests to the Cowper Wharf Road Gangway.

Desmond Woods OAM
Lieutenant Commander RAN
Navy Bereavement Liaison Officer. ✈

Dear Editor,

On the 1st October 2021 an email was widely circulated amongst the veteran community in good faith, advising of the passing of US Army pilot WO1 **Clive H. Collins.** He claimed to have served in the US Army 135th Assault Helicopter Company during 1970 and 1971 in Vietnam, where he operated under the call signs EMU 22 and TAIPAN 33, and was decorated with the DFC, Bronze Star and Purple Heart.

The information originated from an obituary published in the July – August 2021 magazine "Aviator" published by the US organisation the Vietnam Helicopter Pilots Association.

The final group of RAN personnel to serve with the 135th AHC did so from 9th September 1970 to the 16th June 1971, of which I was one (call sign EMU 27), and at no time was there a WO1 Clive Collins serving, despite him saying he joined the unit in 1970.

US Army Register – Volume II 1 January 1972 records Clive Collins making WO1 rank on 24th August 1970, which was the day before the official graduation and awarding of wings ceremony. Graduates were then given a months leave before Vietnam arrival, so that would place him in Vietnam circa 24th September, two weeks after the last RAN group arrived.

Even if Collins had been a 135th member it could only have been for the three months between the RAN departure and his end of tour date, but he firmly states he joined the unit in 1970, This didn't happen,

Furthermore, it would have been impossible for him to have operated with the call signs he states, even had he been a member of the unit, as the they were allocated to other members of the Unit, as follows.

<u>EMU 22</u>

WO1 **Terry F. Mezera** joined the 135th in early April 1970 and was KIA 16th January 1971

Captain **Robert L. Moody** served from1970 to 1971, and was assigned the call sign following Terry's death. He made the move from Dong Tam to Di An with the unit at the end July and would have completed his tour circa the same time as Collins.

CW2 **Thomas G Suhrhoff** served from 1971 to 1972, Tom was a co-pilot at Di An when Bob Moody was still in residence, and was assigned the call sign following Moody's departure. He served until the 135th flew their

last mission on 20th January 1972 and the Unit was subsequently stood down in February.

TAIPAN 33

Sub Lieutenant **W. (Bill) J. Shurey** RAN operated under the call sign during his period of service, 9th September 1970 to the 16th June 1971.

CW2 **Timothy J. Monti** joined the 135th at the end of April 1971 on his second tour as a gunship pilot. He assumed the call sign when the RAN incumbent (Bill Shurey) departed on 16th June. He served until the 135th flew its final mission on 20th January 1972 and unit was subsequently stood down in February.

Regards, **Brian Abraham.** ✈

Order No. 51 has just been sent to the Foundry and plaques bearing the following names should be manufactured in a week or three:

Hart J.M.W. O 2473 LEUT (P) Mar65-Mar70
Shipp N.E. R 59629 LACM Jan63-May69
Huelin A.J. O 2271 ASLT (P) Jul66-Jan69
Casadio A.A. O 2361 LEUT (P) Aug64-Aug68
Phillips O'B.C.I. R56859 POACM Mar60-Aug68
Newbery I.R. O 106919 CMDR Jan 71-Aug98

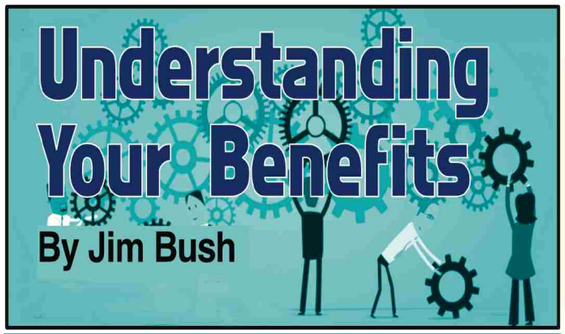
Order No. 52 is now open for new applications.

For those that don't know, the Wall of Service is a way to preserve your name and details of your Fleet Air Arm Service in perpetuity, by means of a bronze plaque mounted on a custom-built wall just outside the FAA museum. The plaque has your name and brief details on it (see background to photo above).

There are over 1000 names on the Wall to date and, as far as we know, it is a unique facility unmatched anywhere else in the world. It is a really great way to have your service recorded.

It is easy to apply for a plaque and the cost is reasonable. Simply click **here** for all details, and for the application form. ✈

Did you have trouble accessing the Wall of Service Application on our website? If so, it's now fixed, so simply click **here** to find out more.



Defence Services Homes Insurance Scheme

DVA may provide current and former members of the Australian Defence Force (ADF), and war widow/widowers of these members with home building insurance under the Defence Services Homes Insurance Scheme, (DSH). The building insurance includes cover for flood, fusion and accidental damage as standard coverage. No excess applies other than for earthquakes and some accidental damage.

Defence Service Homes Insurance can also arrange other insurance cover for contents, car, boat, residential landlord liability, and compulsory third party, (QLD and NSW only).

Further information on access can be obtained by contacting DSH by ringing1300 552 662, or by email at **dsh@dva.gov.au**

A guide to the eligibility requirements, claims and insurance benefits can be read **here**. ✈

REST IN PEACE

Since the last edition of FlyBy we have been advised that the following people have Crossed the Bar:

Terence (Terry) Thornett, Robert "Bob" (Tubby) Gilmore, Lindsay McDonald, Bryan "Ben" Matthews and **Ken Vote.**

You can find further details by clicking on the image of the candle. ✈

The A4 Question

Why didn't the RAN operate the TA4-G off HMAS Melbourne?

In the last edition of "FlyBy" we asked why USN TA-4s (ie the dual seat version of our Skyhawk) were flown off USN carriers, but never operated off HMAS *Melbourne.*

We got lots of replies, most of which were on a similar tack, but **Phil Thompson** provided a comprehensive proposition. He suggested:

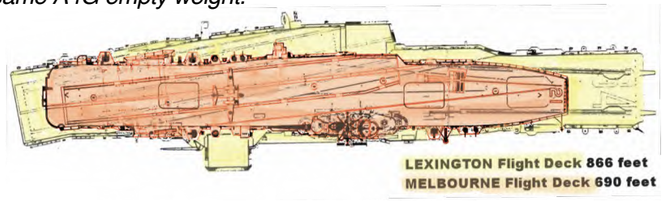
"With a longer nose the TA4G took extra effort to get it off the runway during a touch & go and generally whilst flying (this meant in the air it was a DOG!) :-

Before A4G carrier ops started, the resident AMAFTU test pilot did runway tests measuring the ground roll the TA4G required during a touch & go at NAS Nowra. He probably had further details from the USN but that is only my guess. It was decided NOT to operate the TA4G on Melbourne's deck because the length of deck required to get the nosewheel off during a touch and go OR bolter was not enough to be safe, especially at night when having a good nose high attitude was very important when off the angle deck.

The USN operated not only TA-4J trainers, which possibly had better DL characteristics because it was lighter, but also the TA-4F for special operations over Vietnam.

USN aircraft carriers are HUGE compared to the Melbourne. Attached below is a comparison of the deck size with Melbourne (orange) overlaid on Lexington (yellow)

Another thing to consider about operating the TA4G onboard Melbourne (I hope it is clear it was not possible) is the 900lb fuel difference between the TA4G/A4G. NATOPS for the TA-4F/TA-4J shows the difference in 'fuselage fuel cell capacity' due to the extra cockpit. What has not changed is the maximum carrier landing weight being 14,500 lbs. This gave the A4G a nice margin of fuel at usual carrier landing configuration with at least two empty drop tanks carried. However in similar configuration the TA4G if 'attempting' a carrier landing has less fuel at the same weight because it was approximately 600 lbs heavier empty, compared to the same A4G empty weight.



The 'empty' weight of the TA-4F/G is 11,500 lbs then add the pylons/empty tanks. Similar configuration for A4G is 10,900 lbs. All these NATOPS figures need to be modified for the usual operating configuration of two empty drop tanks at least which further reduce available fuel so this is an 'artificial' comparison. An A4G pilot would know the maximum fuel for a max. carrier landing during the carrier brief. Anyway the TA-4J had many items removed to make it lighter for being a carrier landing training aircraft with a good fuel margin even when it had a less powerful engine. These figures could be provided if required."

Phil also provided a swag of technical information which I've not included here.

So, there you have it. In a nutshell, the theory is that our TA-4Gs weren't operated off *Melbourne* because her small deck didn't allow adequate safety margins for the more demanding two-seater's performance requirements.

Interestingly, the same mail bag brought a different response, from an ex-A4 operator who believes AMAFTU actually cleared the TA4G for deck operations. He's trying to get a copy of the test report and we look forward to reading that, if and when he can. ✈

***Above**. T-A4s being operated off the USS Lexington, whose deck will be familiar to some of our older FAAAA members who used it for Carrier Qualification during their US training. You can see a video of the A4 evolution **here**. Thanks to Brian Abraham for passing this photo on.*

LADS
The Quiet Achiever

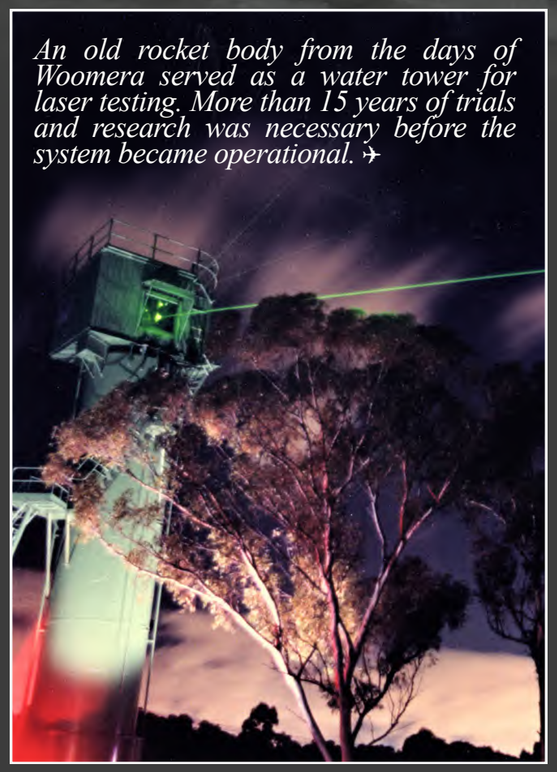
Laser Airborne Depth Sounder (LADS) Development and Trials

by Lieutenant Commander Steve Swayne, RAN (Ret'd)

Back in the early 1970s, scientists at the Weapons Research Establishment near Adelaide (now known as DSTO) determined that it was possible to accurately measure the height of a water column from the seabed to the sea surface by use of red and green laser beams. The possibilities of mounting such laser systems into a low flying aircraft to map the seabed were soon being actively researched.

Although initially considered for beach surveys in advance of amphibious landings in war time, the broader application of surveying the vast Australian coastline soon became the main focus of attention. The red laser light would bounce off the surface while the green laser light could penetrate quite deeply into clear water. Measuring the return times of the reflected red laser energy from the sea surface and the green laser energy from the sea bed gave both the depth of water and the height of the aircraft above the sea surface.

An old rocket body from the days of Woomera served as a water tower for laser testing. More than 15 years of trials and research was necessary before the system became operational. ✈



Above. The Fokker Friendship was selected as the aircraft of choice as it provided the size and stability required, but was nimble enough to use small regional airports. VH-EWP provided years of service before being replaced by a DASH-8.✈

These early static experiments led to the manufacture of trials laser systems which were fitted initially in 1976 into a Beechcraft Queen Air and subsequently in 1979 into an RAAF WWII era Douglas C-47 trials aircraft. Trial flights totalling over 550 hours were flown from RAAF Base Edinburgh near Adelaide over the coastal waters of SA, and also in WA and QLD waters through to 1984. The driving force at DSTO behind the early trials of the airborne laser system was a scientist called Mike Penny. Mike was an erudite, softly spoken man with piercing intelligent eyes, and LADS was the crowning achievement of his career. These early trials proved highly successful and a contract was awarded to Vision Systems and BHP Engineering in 1989 to develop and produce a system for operational use by the RAN Hydrographic Service.

It was decided that a large aircraft was needed for stability and endurance (sorties of up to 8 hours being envisaged) and for ease of aircraft modification it was decided that a high wing aircraft design would best suit the conversion. Thus a former regional passenger airliner, a Fokker F27-500, was chosen for modification. The aircraft, VH-EWP (formerly of East-West Airlines), would retain civil registration, be flown by contracted civilian pilots and be maintained by civilian contractors. Throughout the late 1980s detailed engineering design and construction for the aircraft modifications, electronics cabinets, operator control consoles, laser sub assembly, and cockpit instrumentation modifications were progressed.

In the early 1990s the RAN trials team of hydrographic surveyor specialists located to the Vision Systems engineering lab in Adelaide along with key project technicians and scientists from DSTO to undertake extensive trials of the newly reconfigured LADS Fokker F27.

Due to the vast amounts of data being processed by the onboard computers, cutting edge electronics were employed. Whilst in 2022 we have huge computing power in our hands in our smart devices, back in the early 1990s computers with the required power were the size of refrigerators, and long-term data storage was on huge hard disk platters the size of old LP records stacked 30cm high! Also employed were large reel-to-reel magnetic tape drives for use in the aircraft during operations.

The LADS aircraft was required to be precisely controlled by an automated guidance system linked to the aircraft autopilot. Laser ring gyros were used to precisely monitor every slight pitch, roll and yaw movement in the aircraft, and absolute position was obtained using the then brand-new GPS system. At that time GPS was only accurate using Precise-Code encrypted signals and the avionics required the manual input of cryptographic codes by the Navy operator prior to each flight. In the early 1990s the LADS aircraft was the most precisely controlled aircraft flying anywhere in the world.

Getting the large Fokker F27 into the right place to commence surveying operations at low altitude, 500m ASL, required sound flying skills, with tight turns needed at the end of surveying runs. Aircraft handling was reminiscent of the skills of WWII bomber pilots. Our contractor pilots were ex-airline pilots with extensive hours in a range of aircraft types from regional turboprop aircraft right up to large Airbus and Boeing airliners. They loved the hands-on flying in the Fokker.

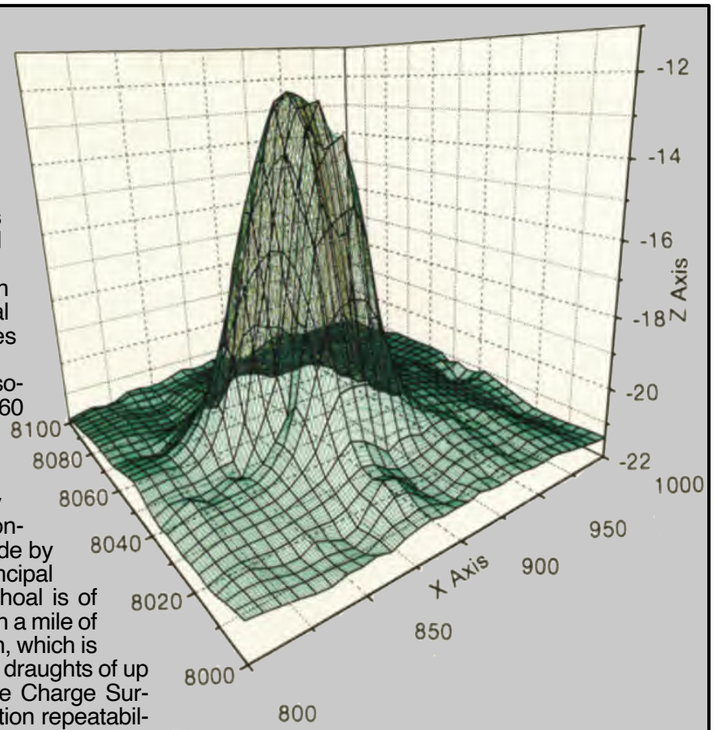
The LADS Fokker was required to fly at precisely 500m altitude at a speed of 70 metres a second (136

A PROVEN TRIAL

A two week Defence Trials period of intensive hydrographic surveying operations followed immediately from contractual acceptance. These trials were the first opportunity for Navy operators to take full control of the system and were intended to test the operational limitations of the system and identify any critical shortcomings.

Ten sorties totalling 53 hours were flown within 12 days in difficult environmental conditions with ambient temperatures reaching 42°C.

During the trials LADS discovered an isolated, uncharted shoal of dimensions 60 metres by 20 metres, rising to 11.9 metres out of general depths of 20 metres. The shoal, initially referred to as "Laser Shoal", was later officially named "Penny Shoal", in recognition of the significant contribution to the development of LADS made by Mr Mike Penny (photo below), the principal DSTO scientist on the project. Penny Shoal is of great navigational significance, lying within a mile of the busy harbour approach to Port Lincoln, which is regularly used by bulk wheat carriers with draughts of up to 14 14 metres. More importantly to the Charge Surveyor were the depth, position and detection repeatability shown on 4 independent passes over the rock on three different days. The results provided the perfect confidence check on a totally new system about to embark on its first operational survey. ✈



knots). The laser system pulsed down 168 flashes of laser energy per second making a scanning pattern left and right as the aircraft progressed, creating a grid pattern with 10m between measurements. Knowing the aircraft position accurately allowed the computer system to accurately assign a position and depth to each of those 168 measurements every second. This was world leading technology in the early 1990s.

In early 1992 I joined the LADS Navy trials team in Adelaide and we undertook the LADS operators course, which involved systems and operations training for the Fokker aircraft. We also undertook basic aircrew training at RAAF Base Edinburgh, and because the Fokker F27 was a commercial aircraft we also underwent civil aviation safety training normally given to cabin crew on commercial airliners.

A comprehensive Navy run trials program commenced in 1992 in waters off Port Lincoln in South Australia. During one sortie, a new danger to shipping was discovered, a rocky outcrop rising 9m above the seabed and shallow enough to endanger the large bulk carriers collecting grain that frequented those waters. The outcrop was named Laser Shoal.

The trials program was not without its moments. On one occasion the aircraft cabin filled with thick smoke when we were at transit altitude at 20,000 feet. The pilot popped open the cockpit emergency exit window causing an explosive depressurisation and the air and smoke rushed out in dramatic fashion. A rapid descent

***Above**. During the first two weeks of trials, the new system discovered a previously uncharted shoal on the approach to a busy shipping lane. It was the perfect way to demonstrate that the concept worked. The shoal was initially names "Laser Shoal" but this was later changed to "Penny Shoal" to mark the significant contribution of. Mike Penny (**lower photo**), the principal DSTO Scientist on the project.✈*

***Above**. The first LADs installation in was in 1976 in a Beech Queenair, before graduating to a larger Dakota about three years later, as shown in the top image. After more than 500 hours of flight trials the decision was made to acquire a larger, more stable aircraft with a high-wing profile to facilitate the fit out, and the Fokker Friendship was chosen (lower photo). The precision of the laser and on-board processing equipment had to be matched by accuracy in flying the aircraft, which required a precise height of 1640 feet above the sea and an exact speed of 136 knots. With its laser-ring gyros and (then) state of the art GPS guidance, the LADS Fokker became the most precisely controlled aircraft flying anywhere in the world.*

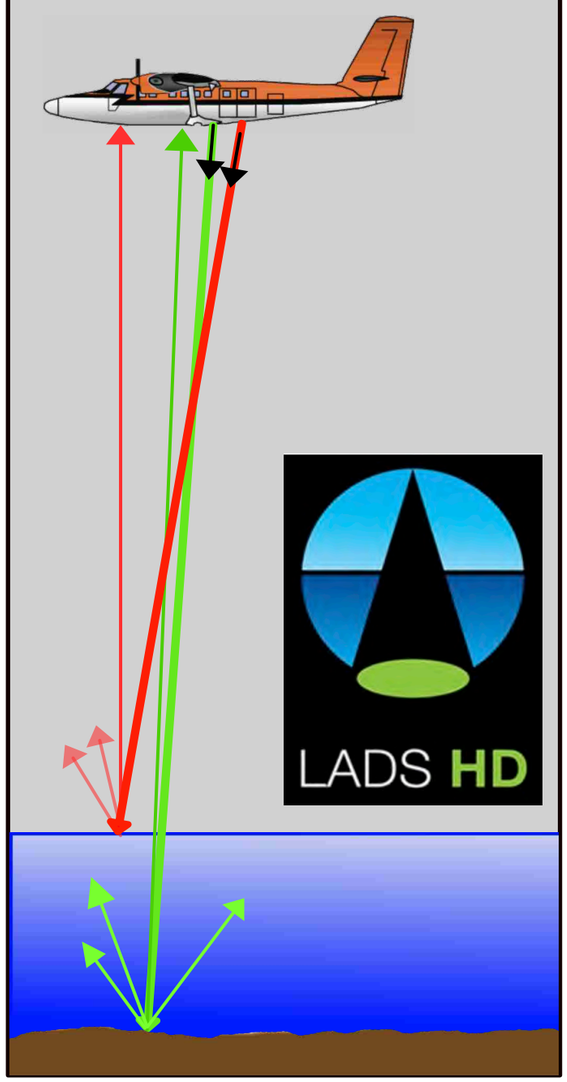
In November 2009 the Fokker was disposed of and a more efficient De Havilland Dash 8-202 took its place. It had previously been employed by Fugro LADS Corporation on not dissimilar LIDAR surveys, so lent itself to easy conversion. The Dash-8 saw out the rest of the project's life, to May of 2019. ✈

LADS uses optical rather than sonar technology.

A pulsed beam of light is directed downwards from an infra red laser. The pulse width is very short to improve accuracy. This red light does not penetrate the water, but is reflected from the surface back to the aircraft.

An electronic device doubles the frequency of the laser light so that a beam of green visible light is also produced. This green light penetrates the surface and is reflected from the bottom of the sea. Both the infra red and green light travel at the same speed in air.

By measuring the time delay between a pulse of infra red being reflected from the surface and a pulse of (green) from the bottom, the depth of the water can be calculated. ✈



and emergency landing followed. It turned out to be an impeller failure in an a/c system, which was unlikely to have caused loss of the aircraft, but the smoke in the cabin was a serious hazard at the time.

All LADS operational flights were at night time, preferably with no bright moonlight. Flying at low altitude over undulating terrain and cliffs would occasionally activate the aircraft ground collision warning system. Hearing the automated "PULL UP, PULL UP" whilst unable to see the terrain ahead was somewhat unnerving for both pilots and we system operators.

On one occasion the aircraft suffered an electrical outage during surveying operations and power was lost to all the systems. This was corrected in the air but the laser ring gyro system could only be reset with the aircraft on the ground. So we landed the Fokker at Port Lincoln airport. At this time Fokker F27s were still a regular sight there as regional airliners. We landed, taxied to the parking apron, and while waiting I popped the cargo door, jumped down and went into the terminal to get a can of Coke from a vending machine for Dennis the pilot. I got back in; shut the door and we took off again. I can imagine what people on the ground must have thought… this massive aircraft landed just to get a can of Coke.

The LADS aircraft and ground systems were handed over to Navy in February 1993 and the trials program moved up to the RAAF Base in Townsville in March. Following successful operations off the Queensland coast, in October 1993 LADS was accepted officially into RAN service. The commissioning crew who took the LADS systems from trials to routine operations had perhaps the most technically interesting time that decade in the RAN.

The LADS Unit was officially based at Cairns Airport in a compound on the general aviation side of the airport, but deployed to various locations and had various forward operating bases. During my operational time in the LADS Unit we worked out of Rockhampton airport, regularly stopped at Weipa airfield, passed through Darwin during a northern waters reconnaissance, but concentrated our effort over the Great Barrier Reef. In all I flew 660 hours in the Fokker, on over 100 flights.

LADS contributed enormously to the coverage of large areas of poorly charted coastal waters around the Australian coast - principally in the Great Barrier Reef area in Queensland - intricate very shallow waters in particular which were too dangerous to survey any other way. The use of LADS reduced the time to conduct all this surveying by many decades.

The results of LADS surveys from 1993 to 2019 have found their way onto many of the nautical charting products produced by the Australian Hydrographic Office. I am sure Mike Penny would be delighted.

The Fokker F27 was in use for many years before being replaced by a de Havilland Dash 8-202 aircraft which remained in service until 2019 when the LADS Unit was finally disbanded. The technology is still in commercial use to this day through the Fugro company. ✈

***Top**. The first operational LADS team in 1993. Front to back, left to right: LCDR Rod Nairn (Unit OC), LEUT Steve Swayne, LS Rob Milne, LCDR Peter Johnson, PO "Hyphen" Hill-Murray and PO Dario 'Sig' Signorini.*

***Right:** The paying off ceremony in Cairns, Nov 2019. Over its operational life, this quiet capability had flown more than 3000 sorties, conducted 186 surveys and covered an area of more than 50,000 square kilometres.* ✈

Last month we asked readers to identify this strange looking machine, and perhaps tell us a bit about how it was supposed to work.

Last Month's Mystery Photo

The aircraft, if you could call that, is a Union X772N

Designed in 1931 by Isaac C. Popper and John B. Guest for the Union Aircraft Corporation in Long Island NY. Four conical spindles in an open frame replaced the wings and were driven by two additional 28 hp Indian (motorcycle) engines. The two large rotors in front produced lift and the small rotors acted as stabiliser.

The rotor airplane was an experiment to create lift based on the Magnus effect, a method of producing a lift force by a spinning body. It was understood that the rotation of the cylinder produces a circulation of the air close to the skin of the cylinder and furthermore a lift force.

Although the designer claimed it had double the lifting power of conventional wings and could land at half the speed, there is no record of actual flight.

The Magnus effect is best used by spin-bowlers and baseball pitchers to create curve balls, but was a complete failure in aviation. It is also used in ballistics to improve the flight characteristics of a projectile, as in the rifling of a rifle barrel.

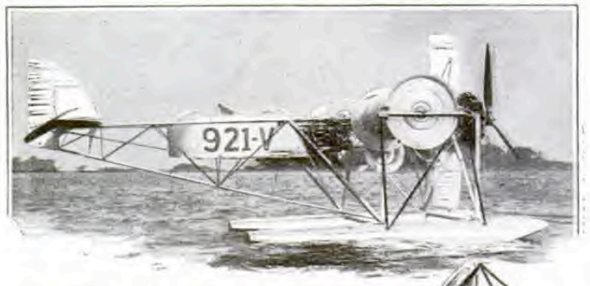
There were other attempts to build an aircraft based on this principle, most notably by Congressman Ames, about seven years after the Wright Brothers first flew their heavier-than-air machine, and then in 1930 by three American businessmen who built a small floatplane which was said to have made short flights (pictured above right). The following page features a comprehensive article on that machine, with an explanation of how the Magnus effect works.

None of the experiments appear to have produced a viable aircraft.

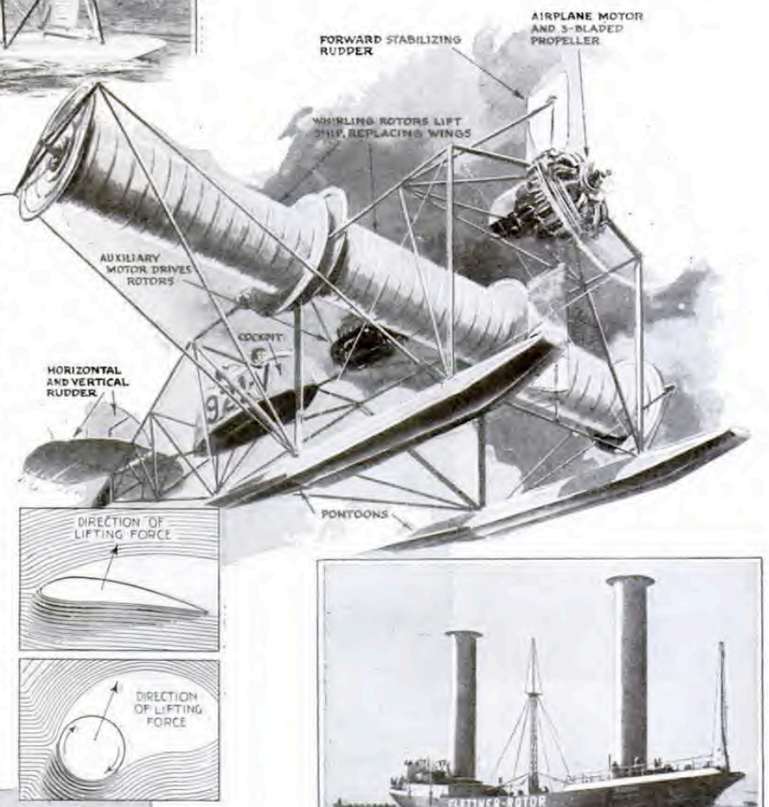
(Thanks to Ted Goater for research) ✈

Whirling Spools Lift This Plane

New mystery airplane, built by three American inventors on barge in Long Island Sound, is tested in secret and is said to have made short flights.



The mystery plane, modified by substitution of a new center rotor to improve its flying qualities, is here seen poised for a trial flight.



At top, artist's idea of the rotor plane in flight based on inventor's original design. At left, showing how rotor lifts machine. Above, Flettner's rotor sailing ship.

SPOOLS of metal, two feet thick, whirl on spindles to lift a strange new airplane without wings. The mystery craft, secretly being tested near Mamaroneck, N. Y., is reported to have made short flights over Long Island Sound. Its three inventors have isolated themselves and their machine on a barge until they are ready for a public demonstration.

Their all-metal "rotor airplane" can lift ten times the load of any other plane of equal weight, they declare. They call it speedier than existing types, and, because of its smaller span, more economical to house.

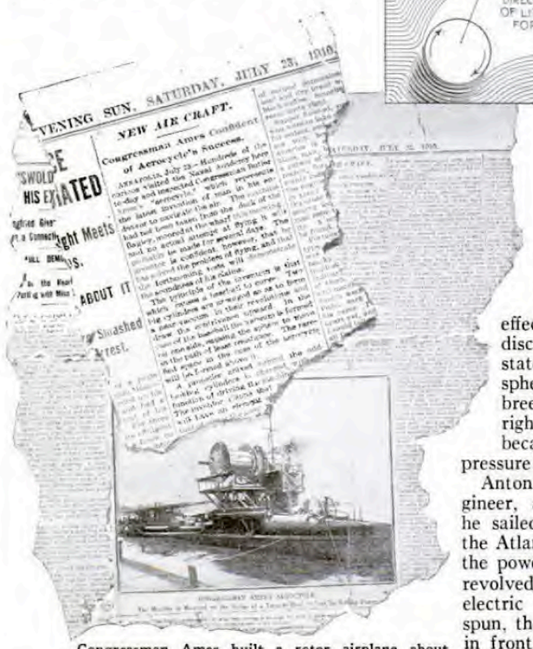
Two motors drive it. A standard airplane engine and its three-bladed propeller pull the wingless craft forward. Meanwhile an auxiliary motor whirls the three spool-like cylinders. Upward pressure thus produced in a head-on breeze is the lifting force.

Though it seems radical in an airplane, there is nothing new about this principle. It is the same thing that makes a spinning baseball curve. Known since 1853 by the name of the "Magnus effect," after its German discoverer, it can be simply stated: A cylinder (or sphere) spinning in a breeze tends to move at right angles to the breeze because of the unbalanced pressure it creates.

Anton Flettner, German engineer, applied the idea when he sailed a "rotor ship" across the Atlantic to New York under the power of two tall cylinders, revolved in a crosswise wind by electric motors. When they spun, they whirled away the air in front of the stacks, lowering the pressure. By piling up air in the face of the breeze behind the stacks, they increased the pressure at this point. The combined effect of a partial vacuum in front and increased pressure in back was sufficient to propel the ship forward.

As long ago as 1910, a United States Congressman, Butler Ames, of Massachusetts, proposed to apply the same idea to aircraft. He even built a model and mounted it on a torpedo boat to test its lift. The rotors, turned to horizontal position, created vacuum above and pressure beneath in a breeze, just as does an airplane's wings. How they compare is shown in the small diagram, in which light areas indicate suction and the darkest show pressure; a breeze is assumed to be moving from left to right.

In 1924 the National Advisory Committee for Aeronautics studied rotor aircraft but evolved no practical machine.

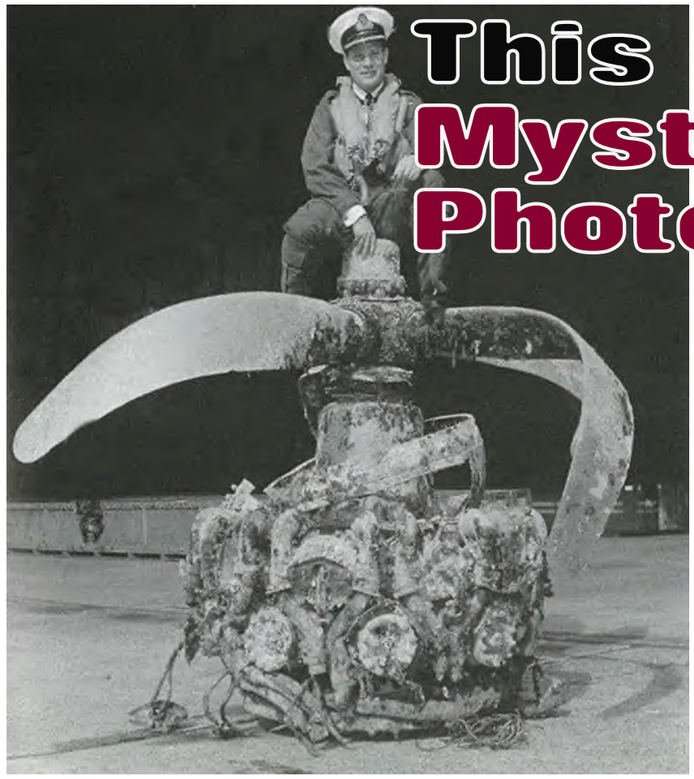

EVENING SUN, SATURDAY, JULY 23, 1910

NEW AIR CRAFT.

Congressman Ames Confident of Aerocycle's Success.

Congressman Ames built a rotor airplane about seven years after the Wright brothers first flew.

This Month's Mystery Photo



This Month's mystery photo shows a bloke sitting on an engine which has seen better days. Can any of you engineering types (or anyone else!) tell the Editor what sort of engine it was, and how it got into the state it was in?

Click **here** to submit your thoughts.

Answer in next month's FlyBy.

DID YOU KNOW VAT SMITH?

In the Golden Age of Cricket none shone brighter than the Australian batsman Victor Trumper. W G Grace visited the Australian dressing room at Lord's in 1899 and presented his own bat to the young Aussie. With career statistics of 42 centuries and 82 half-centuries Victor was a hero to the young nation in that antipodean *Belle Époque* before those grimmer heroes of World War One emerged.

In 1913 a benefit match on his behalf raised almost £3000. Several days later his sister Una gave birth to a boy who was named in his honour - **Victor Alfred Trumper Smith**.

By the time Admiral Sir VAT Smith AC KBE DSC RAN died in 1998 he was widely regarded as 'The Father of the Fleet Air Arm'. While the cricketer has received the due attention of biographers the Admiral has not, and it is a glaring omission in our Fleet Air Arm history.

Under the auspices of the well known military publisher Avonmore Books it is proposed to undertake a comprehensive biography of VAT Smith. The author, **Graeme Lunn**, is calling on the FAAAA membership for any personal recollections or reminiscences about this great naval aviator - whether it is from his days as XO of Sydney off Korea, helping commission Schofields/Nirimba or when commanding *Albatross*, the First Frigate Squadron or *Melbourne*. Perhaps someone who was in South Vietnam recalls his visit as CNS? Perhaps you had dealings with him when he was FOCAF or in those senior roles until he became the first RAN officer to achieve four stars?

Stories from those serving as senior sailors or ratings at the time are particularly sought after. This is a chance to get your name published as you will be given full acknowledgment in the publication.

Contact Graeme Lunn **here** if you feel you can help, however little or big that help might be. ✈

9/11: The Washington Experience

By Brett Dowsing

"The attacks on New York and Washington on 11 September 2001 were audacious, cruel and hideously successful acts of calculated terrorism"

Prime Minister John Howard.
"Lazarus Rising" Pg 382

Introduction

The terrorist attacks that occurred on 11 September 2001 with the deliberate crashing of civilian airliners into the Twin Towers of the World Trade Centre in New York City and the Pentagon in Washington DC, were a monumental event that set off geo-strategic consequences that are arguably only just being superseded by the rise of China and reassertion of power by Russia. Most of us can remember where we were and what we were doing on that fateful day when the four hijacked aircraft ended their journeys and changed the world as we knew it. Those of us who were in the Australian Embassy that day, lived it.

The Embassy

The Australian Embassy was located at 1601 Massachusetts Avenue in Washington DC. A seven storey and double below-ground building, it had a nondescript box-like concrete and glass facade and operated along functional lines. Geographically, the Embassy was only a little over three kilometres west of the Capitol Building and about one kilometre north of the White House. Some 250 personnel worked in the Australian Embassy in 2001 and nearly 360 ADF and Defence personnel were in Continental USA (CONUS) at that time.

The Embassy was headed by Ambassador Michael Thawley, a career Foreign Affairs official who was polished, engaging and straight-talking. Highly intelligent, energetic, inclusive and forward thinking, he was well respected and liked both internally within the Embassy and also externally within the Washington political and diplomatic communities.

Besides the normal engagement and relationship-building activities occupying the Ambassador leading up to 9/11, he and the senior staff of the Embassy were concentrating on a State visit by Prime Minister John Howard, MP and progressing Free Trade Agreement negotiations. Noting also that President George W Bush had only assumed office following inauguration on 20 January 2001, it was a busy period as the Embassy entered the second week of September that year.

Australian Defence Staff

Reflecting the centrality of Australia's ANZUS security alliance with USA, the ADF and Defence civilian personnel on staff at the Embassy formed a major component its complement – upwards of 110 personnel representing nearly 40 percent. Essentially, the Head of Australian Defence Staff (HADS), Rear Admiral Simon Harrington, AM, RAN was responsible to the Chief of Defence Force (CDF) and Secretary (SECDEF) and responsive to the Ambassador for the outcomes of the Defence and Defence Materiel Sections. HADS continues as an ADF 2-Star position and had six 1-Star or SES1 reporting officers, including Counsellors for Policy and Intelligence, Materiel, Science and Technology, along with the Naval, Military and Air Force Attachés. Interestingly, in late 2001 all three Attachés were aviators.

The Naval Attaché was Commodore Jack McCaffrie, RAN, an Observer who had trained in the USN Flight Schools back in the mid-1960's in preparation for the RAN's first S-2E Tracker aircraft. He had extensive carrier-embarked aviation experience and was one of Navy's foremost strategic thinkers. Under the Naval Attaché was an Assistant Naval Attaché, who was

Under the Naval Attaché was an Assistant Naval Attaché, usually a command qualified Principal Warfare Officer or Submariner – in September 2001, Commander Howard Furness, RAN held this position. Both the Naval Attaché and Assistant occupied diplomatic positions with associated privileges including Diplomatic Passports.

The remainder of Naval Staff positions covered Aviation (Commander Brett Dowsing, RAN), Engineering (Mr Adrian Woodhouse), Supply (Lieutenant Commander Roger Jackson, RAN), Communications, Command and Control, Intelligence and Electronic Warfare (Lieutenant Commander Brian Delamont, RAN) and Naval Combat Systems (Lieutenant Commander Michael Rossendell, RAN). The Executive Assistant was Mrs Fay Turner, wife of the Senior Australian Federal Police Agent who was also serving in the Embassy.

The Defence Staff occupied the sixth floor, and the Defence Materiel Staff and Personnel Management Support Staff were on the floor below. The seventh floor was largely unoccupied and provided an overflow capability. The Ambassador and his senior deputies were on the fourth floor while the remaining floors were filled with their staff or functional areas. The two underground floors provided vehicle parking, security compartments, maintenance offices and most importantly, the Booze Locker, which was largely run by the Naval Staff.

The Day Before 9/11

One of the first events of Prime Minister Howard's visit to the USA was to receive in perpetuity the ship's bell from the decommissioned cruiser USS *Canberra*. This ship was named in honour of HMAS *Canberra*, lost while engaged in the Battle of Savo Island 8-9 August 1942. Co-incidentally, three USN cruisers were also lost that night largely due to poor tactical intelligence, communications and co-ordination by the Allied forces and the superior night tactics and torpedo attacks by the opposing Japanese forces.

It was a beautiful autumn morning at the Washington Navy Yard on Monday 10 September 2001 and the ceremony was short and appropriate. The principal VIPs present were President Bush, Prime Minister Howard, Secretary of the US Navy Gordon England, Chief of Naval Operations Admiral Vern Clark, USN and Chief of Navy Vice Admiral David Shackleton, AO, RAN. Of course, the Ambassador, HADS, NA and associated Naval Staff were also present.

Also attending the ceremony was Lieutenant Commander Mackenzie (Mac) Gregory, RAN ret'd who was Officer-of-the-Watch on the bridge of *Canberra* during the Battle of Savo Island. Mac was representing the HMAS Canberra Association and was accompanied by his second wife, Denise. Mac and Denise were honoured guests of whom special mention was made by both the President and Prime Minister.

On completion of the ceremony, the senior Embassy personnel resumed their VIP escort duties and program while the remaining personnel returned to the Embassy. In the afternoon, CN and CNO signed a Submarine Statement of Operating Principles at the Pentagon in the presence of PM Howard and US Secretary of Defence, Donald Rumsfeld. That evening, HADS, NA and their wives hosted a dinner for CN and senior USN and Defence personnel at HADS' residence.

9/11

Taking advantage of his time in Washington DC, CN had arranged a meeting in the Embassy to bring naval personnel up to speed on his ambitions to change the culture of the Navy to a more effective fighting force supported along functional lines. All RAN personnel in the Washington environs and from as far afield as Norfolk, Virginia, mustered at 0830 for introductions and an update by HADS before the scheduled arrival of CN.

At about 0847, one of HADS' staff (thought to be Chief of Staff, Colonel Keith Schollum) interrupted the meeting to advise HADS that an aircraft had crashed into one of the World Trade Centre towers in New York City at 0845, and pictures were being live-streamed on television. HADS invited the NA and naval personnel present to observe the TV coverage in his office. There was a lot of speculation as to what had occurred.

CN and his Escort Officer, Commander Steve Woodall, arrived at the Embassy about 0900 having heard from their driver enroute from the Willard Hotel, that an aircraft had impacted one of the Twin Towers. Met by ANA, CN briefly discussed this occurrence and then met with HADS and NA prior to the start of his briefing. Having been told that a second aircraft had impacted the South Tower of the WTC at 0903, with every indication of a terrorist attack, CN postponed his briefing until about 0930. Joint staff and HADS' personal staff were instructed to start ascertaining the circumstances of the small number of ADF/Defence personnel and their fam-

ilies in New York City. Satisfied all was in hand, CN, HADS and NA proceeded to the Defence Conference Room to join other naval personnel.

Shortly after CN's briefing started, the NA's EA, Mrs Fay Turner advised that a third airliner had impacted the Pentagon at 0943. Things then started happening very quickly. The meeting was terminated with HADS called into a Branch Heads meeting by the Ambassador, CN and his Escort Officer were hosted by NA in his office and the Naval staff commenced trying to get an overview of what was happening, ascertain a threat assessment and form an action plan. We learnt that at about 0940 the Federal Aviation Authority had shut down all civil aviation activities associated with further aircraft taking off and ordered all aircraft to land as soon as possible; inbound aircraft from outside CONUS were diverted from US airspace.

We could see the pall of smoke over the Pentagon from our office windows. The South Tower of the WTC collapsed at 1005 and a fourth hijacked aircraft, inbound for Washington, crashed into Pennsylvanian fields at 1010.

The Prime Minister was collected from his hotel and brought to safety in the Embassy. He was settled into the Maintainers and Driver's Tearoom in the basement along with a good number of Embassy staff ordered below ground-level for initial safety. The PM's wife and son, who were touring Washington at the time, were also brought to the Embassy. Other aircraft were thought to have been hijacked and inbound to Washington; a car-bomb was said to have exploded in the vicinity of the State Department Offices and there was fear of other attacks occurring by different means – the situation was not clear.

At 1028, the North Tower of the WTC collapsed and a little over 15 minutes later, all Federal buildings in Washington were ordered to be evacuated and non-essential personnel told to go home. Central Washington was gridlocked, phone systems were overloaded, shops were shutting and public transport ceased. The US Secret Service established a security cordon around the Embassy now housing the Australian PM.

The Embassy – Potential Collateral Damage

A quick look at a map of Washington DC with an aviator's perspective of using features to hone last minute navigation to a target, reveals some interesting perspectives. Should the targets be relatively low-level, unlike the 110 storey towers of the WTC, and the need is to fly the aircraft to impact, then the use of lead-in features becomes important. In this case, the Potomac River and the Washington Memorial Tower in combination provide these features to target either of the US's centres of power – the Capitol and the White House.

Flying up the Potomac from the South and leaving the Washington Monument to the left has you heading directly at the Capitol Building. Flying from the East towards the now westerly direction of the Potomac and leaving the Washington Monument on the right has the aircraft aiming directly at the White House. With the Australian Embassy about a kilometre North of the White House and a little further West of the Capitol, any miscalculation could easily see the risk of collateral damage for many other buildings in the vicinity, including the Embassy.

Initial Actions

The Embassy quickly swung into action. Consular Support teams were dispatched to help the Consul-General in New York City assist Australians in the Big Apple, including those posted to the United Nations Headquarters. This was where the largest number of casualties were likely to be located.

Identification of Australian casualties aboard any of the four hijacked aircraft or in the Pentagon attack, was also an early priority. For the remainder of the day, however, the focus of the NA and his staff revolved around supporting CN and, with other Defence Staff at the Embassy, ascertaining the safety or otherwise of all ADF and Defence personnel and accompanying families in CONUS, along with those visiting. This was no easy task as there were about 360 personnel (not including family members) across the USA at the time. This included those posted to the Embassy, serving on exchange, undergoing training, on Project teams acquiring US equipment and those visiting from Australia.

By late afternoon, we and other Embassy staff had ascertained that the ADF and Defence personnel and families were not among casualty figures. Some had experienced close shaves and there was an understandable degree of anxiety.

A permanent ADF presence was set up in the Embassy to cover the evening period and to act as a communications conduit for the PM and CN along with the Ambassador and HADS. Once the US airspace was cleared and any danger from further attacks ameliorated, the PM and CN parties were returned to the Willard Hotel. The PM and family then relocated to the Ambassador's residence, which was clear of any perceived targets.

That evening, the Ambassador hosted an informal dinner at his house for the PM and his party, including US Ambassador to Australia, Tom Schieffer. CN and Commander Woodall also attended. This provided the opportunity to clarify a significant amount of the day's events, which proved useful for Embassy planning and reporting over the following few days. Normal communications links were largely inoperable until things settled down over the following weeks. It also provided the opportunity for CN's party to be included in any plans for the PM's return to Australia.

The Next Few Days

At his first press conference on 11 September shortly after the New York attacks, the PM expressed Australia's outrage and raised the commitment of forces in any action to prevent a recurrence of terrorism against the USA or other allies.

The PM's 12 September program had him attending a joint sitting of Congress about 1100 to address both Houses. The PM did attend but without directly addressing Congress due to the Houses discussing actions emanating from the attacks. The PM's presence was applauded as were his intentions to get back to Australia to develop and enact the necessary Parliamentary actions to support the USA in its subsequent aspirations. At about 1630 that afternoon, the PM's and CN's parties were flown out of Washington DC on Air Force 2 (the Vice President's B757 aircraft) to Hawaii for return to Australia 13-14 September by a Qantas B747 aircraft stranded in Honolulu due to restrictions on flying in US airspace. Following a brief update from Admiral Dennis Blair, USN (CINCPAC), it flew out of Hawaii under special Federal Aviation Administration clearances.

Late in the afternoon of 14 September, PM Howard announced that Parliament had agreed that the attacks on New York City and Washington DC constituted the necessary provisions for implementing the ANZUS Treaty and that Australia would contribute militarily to any US-led actions. Interestingly, it was almost 50 years to the day of the original signing of the Treaty.

Many of the Federal institutions around Washington, remained closed or operated on a minimal staff basis for the few days following the attacks. This recognised compassionate as well as pragmatic circumstances because, while ameliorating, there was still concern that further terrorist land-based attacks could occur. The National Guard was deployed across the business districts of Washington with many of the major buildings and intersections guarded by these soldiers and their ubiquitous Humvees.

Vehicular traffic was minimal, public transport ran reduced services and the skies were largely clear of aircraft. Contrails across CONUS ceased. But the introduction of combat air patrols by USAF F-16 fighters and their occasional low sweep across the city, brought home the reality that the nation was on a war footing that few of us, if any, had experienced before. Certainly this pertained to our families and the civilian population of America, who remained anxious.

Gradually, the Embassy established and settled into a battle rhythm acting as a conduit between Australia and the USA, with security and associated international diplomacy taking precedence. Nearly all other aspects of duty across the gamut of Embassy life were placed in abeyance, at least until later in the year. Critically, visits from Australia virtually ceased and there were minimal departures from CONUS. Liaison was especially sought with the US Administration, State Department, Congress, Defense and Intelligence communities, and understandably, this took time to re-establish. However, it was achieved to the credit of those involved.

Initially, a 24-hour watch system was set up within HADS organisation. While useful in some ways to counter the 14-hour time differences with Canberra, most

***Above**. A haunting reminder of the grief caused by the disaster, this newspaper stand bears images of missing people posted by their loved ones. Most were never found.*

Makeshift noticeboards like this quickly appeared over much of New York, a testimony to the number of citizens lost on that day. (Image: Gilles-Peress. Open source).✈

of the information exchanged did not require immediate action and the watch system reverted to an "as required" basis after the first week.

Settling into the Remainder of 2001

On Saturday 15, Ambassador Thawley hosted a casual barbecue lunch for Embassy staff and families at his house. This was an excellent initiative that, notwithstanding most Defence staff needed to return to the Embassy to complete reports back to Australia, placated many of our families as the US community environment still vented anger and retribution without a clear understanding of consequences.

American patriotism was on full show and, if there was a perceived deviation from this new norm, then it incited questioning and anger from the less-worldly Americans. Most diplomatic personnel in Washington, at the time, can recall having to explain to Americans, their countries' position and why they weren't flying the "Stars and Stripes" from their car or the front porch of their house. The smarter foreigners would fly both the American and their own country's flag at home or, for the Australians, would ensure a kangaroo sticker was displayed on the back of their cars! The American attitudes to patriotism became even more strident and fraught for some once the attacks were launched against the Taliban in Afghanistan on 7 October 2001 and again when Operation Iraqi Freedom commenced on 20 March 2003.

Australia's commitment to the war on terror and in Afghanistan certainly led to favoured status within Washington circles and was reinforced with entry into the Iraq campaign. Along with UK, Australia enjoyed access and privileges above most other representative missions in Washington and more broadly in the USA, officially and socially. For most occasions, our Australian accent was indeed useful, but most still recall issues trying to pass through security to board civilian aircraft or re-enter the USA from overseas as we were classified as "aliens" regardless of our passport status.

Back in Australia, the collapse of Ansett Airlines was being felt and the implications of 9/11 were impacting the remaining celebrations of the Centenary of Federation and of the Navy. CN was required to cancel a previously agreed circumnavigation of the globe by three HMA Ships and an International Naval Review due to be attended by about 22 countries' naval vessels and the Duke of Edinburgh. Notwithstanding, and in a show of alliance, CN returned to the USA on a counterpart visit during October where he was roundly hosted by CNO Clark.

Larger Scale Projects

Leading up to 9/11, Defence was engaged in several large-scale projects and these continued after the attacks. As such, they added complexity in dealing with the demands associated with acquisitions resulting

***Right**. Photographs of the disaster and its impact on Americans are plentiful, but every one of them captures the raw emotion of that day. Here is a selection. Top: 1992 AP by David Karp. [2] Gilles Paress [3 and 4] David Turnley [5] Gilles Paress. [6] Mark Faram/US Navy photo.*

from commitment to the wars on terror in Afghanistan, and later in Iraq.

For Navy, the two major programs were associated with resolving noise and combat systems issues with the Collins Class submarines, and the acquisition of Kaman SH-2G (A) Super Sea Sprite helicopters for the Anzac Class frigates and potential Offshore Patrol Vessels, although the latter build had been cancelled a few years earlier.

For Air Force, the projects were acquisition associated with the Boeing 737 AEW&C Wedgetail and assessment of the F/A-18F Super Hornet as a replacement capability for the ageing F-111. Army had no specific acquisition plans underway in the US at that time but had significant numbers embedded across US Army units and training facilities.

From a Navy perspective, most of the Collins' issues involved trialling of superstructure water flow and propellor cavitation issues at CARDEROCK. This was a high priority from an operational perspective and had received a lot of negative press in Australia. There was a relatively small team located in the US and most of the arrangements associated with this program were co-ordinated through DSTO staff.

The Sea Sprite program was largely centred at Bridgeport, Connecticut and had a small project team of engineers and test aircrew embedded in Kaman facilities. In 2001, the aircraft was experiencing the early stages of systems' integration issues, which developed into significant safety problems. These eventually led to program cancellation in March 2008.

Separately, Navy was also seriously engaged with the USN in developing higher levels of data transfer and weapons co-ordination between ship-borne systems. This integration would also enable real-time training and tactical development between USN and RAN units regardless of location.

Fleet Air Arm Implications

Besides the NA and SOAV positions in the Embassy and the SH-2G(A) team in Connecticut, the Fleet Air Arm had personnel embedded at Patuxent River, Maryland for aviation engineering and spares support in PMA 299 and in HSL 41 Squadron at San Diego, California as an instructor on SH-60B helicopters. In other years, there were personnel also undergoing specialist training as test pilots or at higher education facilities but this was not the case in 2001.

Almost immediately following PM Howard's commitment to support the US actions after the 9/11 attacks, the principal new aviation-related equipment requests centred on personal protective equipment for aircrew, access to night vision googles and forward-looking infra-red and fitment of Hawk Link in RAN ships so that they could operate with USN SH-60R helicopters if necessary. These activities involved working with and through our colleagues in Defence Materiel and with the USN and associated suppliers.

Notwithstanding the exceptional goodwill, we were in many cases competing with the USN for such equipment or services and they, naturally, had priority. But the answers were never a direct no and despite their best efforts none of these programs came to fruition by the time Operation Enduring Freedom commenced.

The US military were also heavily involved in co-ordinating the operation of Army and Air Force helicopters from USN ships under a project called Joint Ship Helicopter Integration Program (JSHIP). The ADF was also pursuing similar aspirations understanding that our newly formed amphibious capabilities in the Landing Platform Amphibious (LPA) vessels HMA Ships *Kanimbla* and *Manoora*, would likely deploy with Army Aviation helicopters for littoral or humanitarian operations. As such, this remained a priority post-9/11.

Similarly, Air 9000 ADF Helicopter Program also remained a high-profile project throughout the early 2000's including after 9/11. This program sought to rationalise the different types of helicopters being operated by the ADF across the missions required of the three Services. The Super Seasprite was somewhat of an outlier but had been approved prior to Air 9000. But there was an increasing interest in the replacement programs for the Seahawk and Blackhawk helicopters, which were the centre-of-gravity of the ADF's helicopter fleets. The competition was narrowing between the European MRH-90/NH-90 and the upgraded US Sikorsky H60/SH-60R.

The RAN had been operating the S-70B-2 variant of the Seahawk from our FFGs effectively since their rapid embarkation for Operation Desert Shield/Storm in 1990 – even before the commissioning of their parent Squadron HS 816 in July 1992. Ongoing spares support and technical liaison with the Original Equipment Manufacturers (OEM)

and the USN through our Australian agent in PMA 299, also attracted an enormous amount of work in normal course before and after 9/11. Indeed, senior FAA leadership had just visited the USA in August 2001 and the Sea Sprite Project Team from Canberra visited in November of that year.

While of less direct interest than the aforementioned projects, there were several other aviation developments that we in Washington were required to keep a weather eye on and report back to Australia. These included the development of the MH-60S, a marinised Blackhawk used by the USN for embarked utility and SAR tasking; the MV-22 Osprey tilt-rotor aircraft that was undergoing developmental trials for the USMC; comparative capabilities of the USN Helicopter Long Range Active Sonar (HELRAS) and the European Airborne Low Frequency Sonar systems (ALFS); and finally the developmental progression in shipborne helicopter recovery and securing systems from RAST (Recovery Assist, Secure, Traverse System) to ASIST (Aircraft Ship Integrated Secure and Traverse System).

The political realm also continued to be an important driver in workload priorities of the Naval Aviation staff in the USA beyond that immediately associated with the commitment to the Wars on Terror and, initially, Afghanistan. The Australian Opposition was running a pre-election platform advocating the introduction of an Australian Coast Guard. As such, there were several visits by senior politicians and bureaucrats in 2001 and 2002 to confer with the Department of Homeland Security and with the US Coast Guard leadership. And finally, even greater liaison and engagement occurred throughout 2002 leading up to the commitment of denuclearizing Iraq with war commencing on 20 March 2003 as Operation Iraqi Freedom.

A strong emphasis for this latest commitment by Australia and its Navy to Middle East conflict, manifested itself in ensuring the appropriate issue and spares support for Night Vision Devices including FLIR for the aircraft, NVGs for aircrew, anti-laser googles for aircrew and missile detection and counter-measures. As previously, liaison and engagement with US military and suppliers were well supported but were also in direct competition with US military requirements. This time though, and indicative of earlier commitment in support of the US, we enjoyed a much more equitable consideration. This was especially so in the areas of shared intelligence or developmental support.

US Domestic Terror Continues

Immediately following the attacks in New York City and Washington DC, life in the USA was not normal in any way, shape or form. Everything was about the attacks; who had perpetrated these, and what retribution against whom was the USA going to direct its anger?

The damages to these two proud cities both physically and mentally, was unimaginable. Photos of the ruins, witness statements, the airing of the final phone calls of those in the aircraft or the doomed towers and the confused and, at times undisciplined media analysis, all combined to leave a frustrated or non-believing population seeking answers, especially to the question - Why? The military and intelligence services pretty much understood; the US political leadership were also across the reasons behind the attacks, but the American population by and large took much longer to understand.

Into this environment, on 18 September 2001, the first casualty of enveloped anthrax mailed to politicians and senior bureaucrats in Washington, occurred. Over the following three weeks through to 9 October, 20 personnel were injured and five killed.

On the 2 October 2002, an uncle and nephew sniper team that had entered Washington from the west coast of USA, claimed their first local victim. Over the following three weeks, 10 people were killed and a further three, including children, were seriously injured. These shootings were totally random in terms of victim, time and place. This led to further anxiety across the population of the city and its outlying suburbs until the perpetrators were captured, sleeping in their car at a parking lot, on 24 October 2002.

Normality

For most of us at the Australian Embassy and for our families, normality (if that's what you could describe it) didn't return until the Christmas – New Year break at the end of 2001. This was when the perfect weather of September was replaced with the winter of December and the challenges of snow and ice storms started dictating one's ability to work or play. And for most, it seemed like we'd been through enough and deserved the break we were getting. Simple pleasures of family and community seemed sufficient until we were required to get back to work. And that's when most of us realised just what we'd been through and the changes we were going to witness, at least for the next few years.

Washington Team 2001. L-R CMDR Brett Dowsing, LCDR Roger Jackson, CMDR Howard Furness, CDRE Jack McCaffrie, Mr Adrian Woodhouse, Mrs Fay Turner, LCDR Brian Delamont and LCDR Mike Rossendell. In front of the Iwa Jima Memorial, Arlington, Virginia, USA.

The change-over of personnel was part of this normality and we saw Rear Admiral Simon Harrington hand over duties as HADS Washington to Major General Simon Willis, CSC in February 2002. In December of that year, Commodore Jack McCaffrie returned to Australia and was relieved by Commodore Jim Stapleton, AM. I was relieved as SOAV by Commander Geoff Fiedler in December 2003, having spent three and a half life-changing years in that position, and returned to Australia proudly promoted to Captain.

The Experience of USA

While the memories and experiences of living and working in a foreign country will be different for everyone, those of us who experienced Washington over the period of 9/11 will share many common themes, probably for the remainder of our lives. It was a seminal experience. The horror, the destruction, the desperation of those jumping from the burning towers, the heroics of the first responders, the shock, and the initial periods of unknowing, affected us and our families. We saw the best of America, and experienced the worst in America.

Our Prime Minister experienced it first-hand and he reacted courageously. While uncertainty swirled around us in the immediate aftermath, PM Howard's declaration that we would stand with the USA in renouncing and responding to these attacks, paid huge dividends resulting in the elevation and status of Australians, particularly for those of us in America. We were immensely proud and privileged, and this generosity by Americans continues to this day.

On 13 June 2002, a mere nine months after visiting Washington on that fateful day, PM Howard returned and reminded President Bush and the US Congress that "the USA has no greater friend than Australia." All American Presidents since, have reiterated the same feelings of the USA for Australia. We were, and remain, indeed privileged.

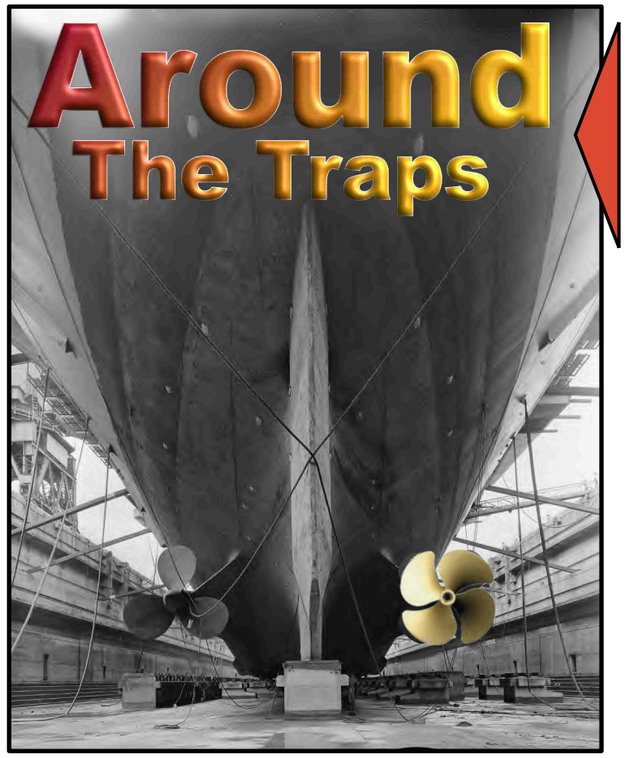
Perth, WA. 2022. ✈

Postscript

The memory of events in the Embassy in Washington DC on 11 September 2001 varies amongst those personnel present that day. There is scant, actual evidence upon which this account has been developed some 20 years later. Its construct has relied on some personal diary entries and emails, the official programs of senior officers, PM Howard's autobiography "Lazarus Rising", news reports from accompanying journalists, and the accounts or advice from the following:

Vice Admiral David Shackleton, AO, RAN Ret'd.
Rear Admiral Simon Harrington, AM, RAN Ret'd.
Commodore Jack McCaffrie, AM, RAN Ret'd.
Captain Howard Furness, CSC, RAN Ret'd.
Captain Brian Delamont, RAN Ret'd.
Lieutenant Colonel Jan Hyde, Ret'd.
Ms Edeena Cross (née Hay.)
Wing Commander Barbara Wells, Ret'd.
Dr David Stevens.
Captain Michael Galvin, Qantas.
Commander Heidi Rossendell, RAN.

Typesetting: Marcus Peake. ✈



Last month we printed this photo (now slightly embellished!) and asked if anyone had any idea why *Melbourne's* propellers were asymmetric, with one three-bladed and the other four.

We got lots of replies, most of which blamed the lack of hull symmetry on having the Island on one side of the carrier. Unfortunately, that was a little off the mark.

Kim Dunstan put us on to a good explanation from the Naval Historical Society of Australia which you can read **here**. It goes into some detail, but in a nutshell:

- HMAS *Sydney* and other Colossus and Majestic class light fleet carriers (which included *Melbourne*) were designed as 'disposable' carriers with a planned three year service life.
- Their propulsion machinery was contained in two staggered compartments, with the starboard compartment forward of the port. This meant the starboard shaft was longer than the port, which may have led to torsional vibration causing extra stress to the starboard shaft.
- Each shaft originally drove a three-bladed propeller.
- Around 1945 HMS *Pioneer*, which had been laid down as a Colossus class carrier, suffered a severe implosion in her forward machinery space during sea trials. This was caused by the snapping of the starboard propeller shaft due to the torque applied to its longer length.
- During repairs her starboard propeller was replaced by a four-bladed unit. All subsequent ships of those classes followed suit, and no further problems were experienced.✈

Phil Thompson continues to work tirelessly on his "Mega PDF" containing thousands of pages of FAA history, facts and figures, and observations about Naval Aviation in general. The latest version can be downloaded from **this page** in our website. Be sure to read the instructions carefully before proceeding. ✈

The recent death of QE2 has spawned a bunch of photographs on FaceBook to remember her, including this one. We are not sure of the date - possibly during her visits of 1986 or 1988 (that's Mike Hudson escorting her, but hard to tell if he was CNS at the time).

One thing is certain though - she would not have missed the contingent in front of her as representing the Fleet Air Arm. Well done to those souls who stepped up front and centre! ✈

Back in 1967, the armourers of VA-25 Squadron strapped a dunny to an underwing pylon of a Skyraider off the USS Coral Sea. It was for delivery over Vietnam to mark the 6-millionth pound of ordnance dropped. The event turned into a bit of folklore thus proving that aviators of all kinds love toilet humour.

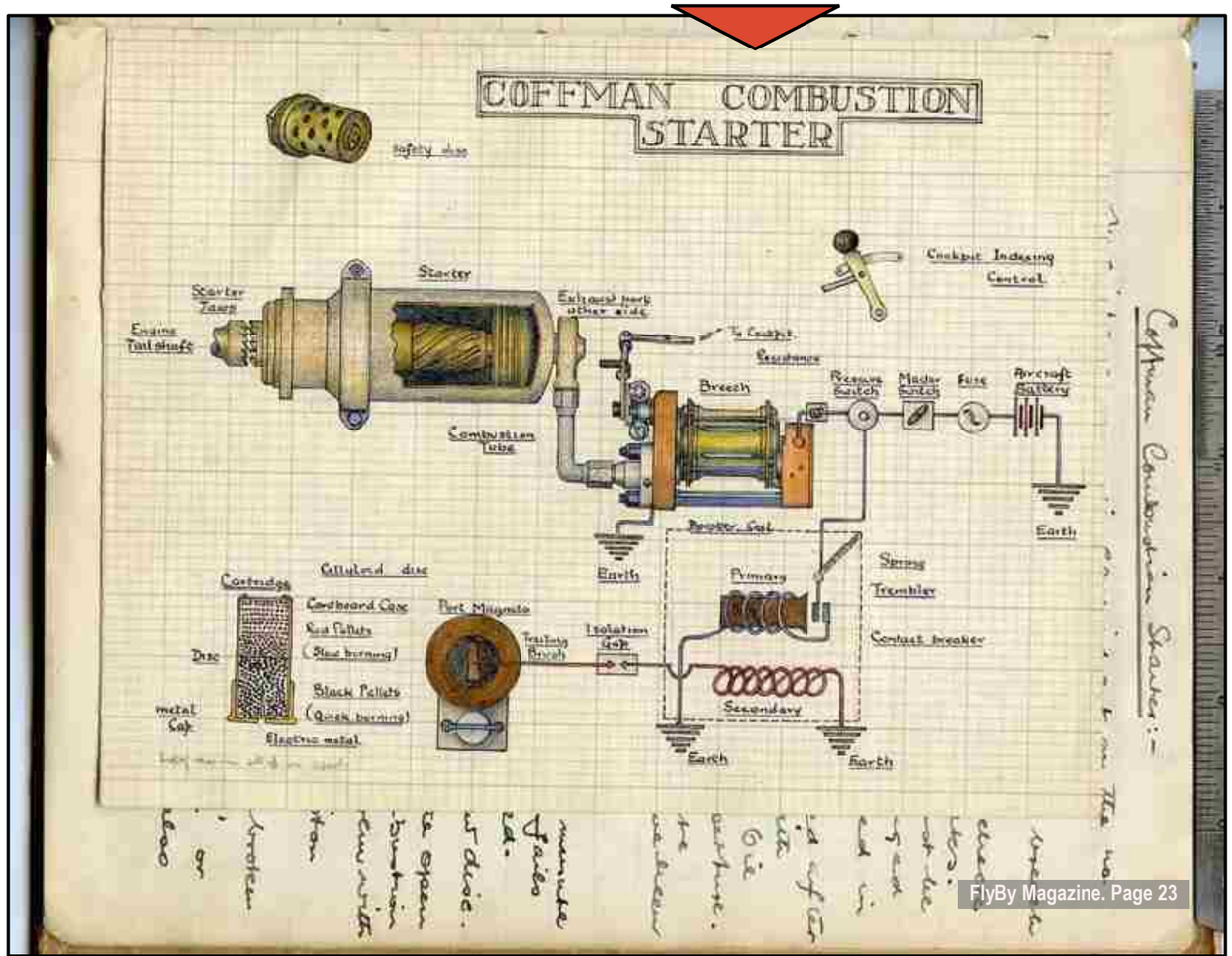
It was dropped with another aircraft in company to film the event. When it came off it turned hole to the wind and almost struck his aircraft.

Needless to say it generated a lot of potty humour and a deal of discussion about introducing germ warfare into the war.

Fast forward to September, when VA25 underwent a change of command and decided to replicate this bit of history, but this time under the wing of a Super Hornet. The fins were made from multiple dryer exhausts, and the stickers by Corrosion Control. The "E" symbolises the Unit has been awarded the Battle Effectiveness Award.

As far as we know, it didn't fly, but was a nice symbolic gesture to a memorable moment of history. ✈

Ron Marsh sent us this image of a page on a Coffman Starter, which appears to be written in an exercise book - perhaps someone's notes during their technical training? I'm sure there's a bit of history there! ✈



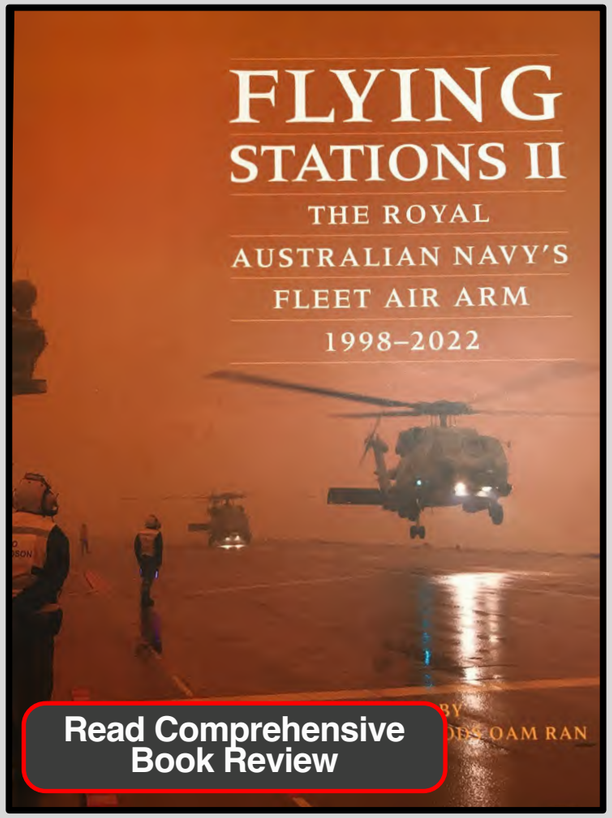
"FLYING STATIONS II" launched at the FAA Museum

The seminal publication "Flying Stations" was first printed in 1998, the brainchild of **Mike Lehan** who was the Director of what was then the Australian Naval Aviation Museum. It has become one of the foundation references of our Fleet Air Arm history, taking readers on a journey from the very earliest days of Australian Naval Aviation to the brink of what was then an exciting new aircraft for the FAA - the Kaman Seasprite.

A lot of water then passed under the bridge and so CDRE **Chris Smallhorn** envisaged bringing the book up to date when he was COMFAA a few years back. It was a great idea that has finally came to fruition with the official launch of the second volume on 21 October, in the FAA museum. ✈

"As we came over the perimeter fence there was a huge explosion. I looked forward and saw the outside of the aircraft was on fire and the cabin filled with thick smoke; so thick I couldn't see the cockpit. A few seconds later the aircraft hit the deck, quite hard, but stayed upright"

Excerpt from Flying Stations II



Read Comprehensive Book Review

HOW DO YOU GET A COPY?

'Flying Stations II' is currently only on sale over the counter in the Fleet Air Arm Museum for $55 a pop. It should appear on NAVY ANCHORAGE'S (ie Navy Canteen's) website soon for mail orders **here**.

If you can't see it there you can email them **here** to ask for a copy. In time, it may also appear on the publisher's website (Avonmore Books), and we'll keep you informed if it does.

HISTORY OF OUR FLEET AIR ARM

LCDR **Desmond Woods**, the Editor of 'Flying Stations II' gave an excellent presentation at the recent ANI/FAAAA Seminar on the history of our Fleet Air Arm. With a deft balance between ancient history and more recent events, it was a very entertaining and informative thirty minutes or so.

The Naval Historical Society has been quick to pick up on it, and has asked Desmond to present it again on Wednesday 9th November at 1100 AEST.

You can easily find all the details and plug into the Zoom presentation of this event by clicking on the NHS logo to the right.

Naval Historical Society of Australia

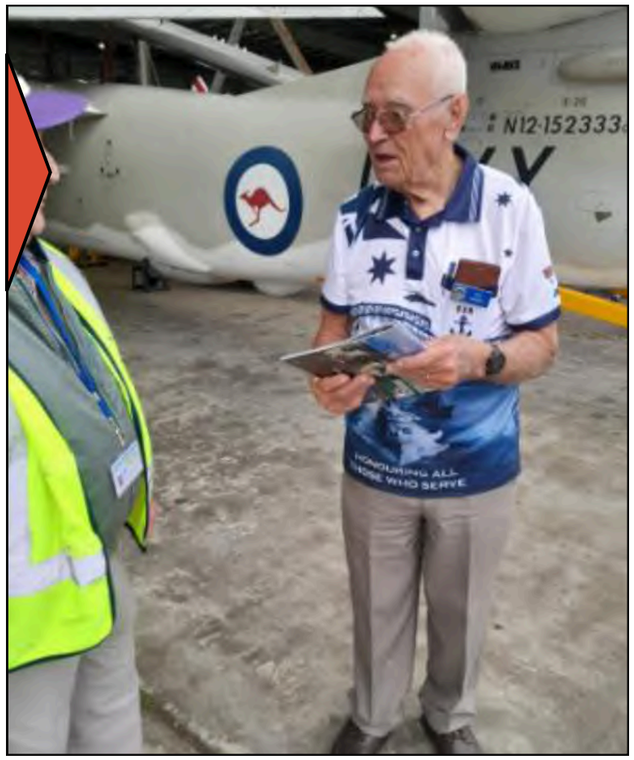
QLD Division Donates Money to HARS

Ray Murrell, the Past President of Queensland Division, travelled all the way from Lawnton (QLD) for the multi-event FAA weekend in October, during which he took time out to call on the Historic Aircraft Restoration Society.

Ray presented the Society with a cheque for $2,000 to help with the costs of running the Navy Heritage Flight, which was gratefully received.

You can see more about HARS **here**. ✈

Lower Two Photos. Here's a couple of old images that feature "The Beast", aka recovery crane aboard HMAS Melbourne. Anyone know who they are, or perhaps can spin a dit about the crane? Contact the Editor **here**. ✈



RARE BREED VISITS HARS

Readers with a bit of Celtic blood flowing in their veins may be especially stirred by this photo of the world's only operational Scottish Twin Pioneer, which was the featured aircraft for HARS' recent October Tarmac Days.

Just 89 Twin Pioneers were built at Prestwick from the 1950s, of which four served in Australia. This is now the only one in the world still able to fly, and joins HARS' Super Constellation as the only other tri-tail design still flying.

Previously owned by the late aviator **Sy Allsep** and flown at Wedderburn airstrip (near Campbeltown), the distinctive radial engine tri-tail recently was gifted to the Historical Aircraft Restoration Society (HARS) in August for preservation.

Its extreme short field landing and take-off capability was achieved by rugged construction combined with two powerful nine-cylinder supercharged and fuel injected engines – the last British designed and built radial engines.

Known as "Twin Pins" and able to operate from rough ground, they were used by exploration and survey companies to make supply drops into remote mountain canyons and deserts.

HARS plans to fly the distinctive three-tailed Twin Pin on a semi-regular basis.

Words and picture courtesy of HARS. ✈

Out And About

Over the years we've become accustomed to seeing less and less Navy aircraft at events such as school visits or sporting fixtures. It was as if Navy had a deliberate policy to save a few flying hours at the expense of valuable public relations and recruiting opportunities.

But that seems to be changing, as the two images above and right show. Both featuring EC135s, the top is of the recent Bathurst 1000 event. The guy in green is Tickford racing driver **Thomas Randle**.

Commander **Sam Dale**, CO of HC723 (second from left) said: *"I think it is important to highlight the parallels between motorsport and military aviation. Managing risks, making high-speed decisions, and working in a team are all key elements across both endeavours."*

"That's why it is great to take an aircraft to Bathurst – we've got dozens of young people just like Thomas Randle in our classrooms and aircraft, training for their own great race, and we've got room for plenty more.

"I'd encourage any young people watching the Supercars to consider a career in Navy aviation – there are openings for pilots, other aircrew and technicians, and it is similarly challenging and rewarding as competing at the highest levels of motorsport."

On the right is the EC135 departing from Old Bar school, where it had been visiting for **John Macartney's** Veteran's Day last month. The event, which involved many of the local kids, was a tremendous success and created lasting memories in the minds of the youngsters who witnessed it.

We heartily endorse this new policy of getting out and about. There's no better way to recruit new people than to put our people and the hardware out for them to see for themselves.

Navy Images ✈

COMFAA OFFER

At the recent Federal Council Meeting, Commodore **David Frost,** the Commander of the Fleet Air Arm, extended an informal invitation to speak with any Division of the FAAA, or any other Navy veteran group, whenever he visits their neck of the woods. He's keen to engage with veterans and wants us to reciprocate, and to become more active ambassadors for the FAA in terms of stirring the interest of young people who may then consider joining the Navy.

David Frost is an engaging and entertaining speaker and, aside from his wealth of personal stories and experiences, is the very best person to tell you what's on and about in the Fleet Air Arm of today. I would urge you to accept his very genuine offer.

If you wish to take up this opportunity, simply email the FlyBy Editor **here** with an expression of interest. I'll put you on to a contact in COMFAA's HQ, who can then tick-tack about potential dates and places.

SIX OF THE ROYAL AUSTRALIAN NAVY PILOTS flying with the RAAF's No. 9 Iroquois helicopter squadron in Vietnam, pictured together before going out on missions in support of the Australian Task Force. Eight Navy pilots are on 12 months' attachment to the RAAF. In the picture (l to r) are Sub.-Lt. Ken Vote, of Sydney; Lt. Andy Craig, of Melbourne; Sub.-Lt. Geoff Vidal (Sydney), Sub.-Lt. Marty Ward (Nowra, NSW), Lt. Tony Hill (Nowra, NSW), and Sub.-Lt. John "Bomber" Brown (Sydney).

Above. From a distant "Navy News" came this brief article on six RAN pilots serving with the RAAF's No. 9 Squadron.

It arrived on the Editor's desk in a timely manner (thank you, Boong!), as it serves to remind us of Ken Vote (first on the left), who passed away on 23rd October after a long battle with cancer.

It also reminded the Editor that he has very little material (ie, none) about the FAA's contribution to 9 Squadron during Vietnam. Can anyone help him out? It's got to be worth a Heritage piece to capture their story and pay honour to their Service. Email him **here**.

We have been advised that **Keith Taylor**, the long-standing Secretary of WA Division and Life Member of the Association, underwent heart surgery at the end of October, and is expected to be in hospital for a couple of weeks for post-surgery care. We extend our very best wishes to Keith and wish him a speedy recovery.

'With Pipes Playing and Drums Beating...'

On Friday 21 October the City of Shoalhaven granted Freedom of Entry to around 1000 men and women of HMA Ships *Albatross*, *Creswell* and the Fleet Air Arm.

The ceremony dates back to medieval times in the UK and Europe when a town's fortress walls afforded protection against feudal lords or outlaws, and only trusted friends would be given access to the town. The granting of Freedom of Entry is the highest accolade a town or city can bestow upon a group and is no less readily won or lightly given today than it was centuries ago.

The rain held off for the event and although there were no bagpipes playing there were certainly drums beating. The RAN Band led the procession which set off from the Nowra Showgrounds, and was welcomed by indigenous elders before being challenged to provide proof or Right of Entry. That done, the parade made its way into the Nowra CBD with a perfectly timed fly-past of Fleet Air Arm helicopters past and present.

A little later a Beat to Quarters and Ceremonial Sunset wooed the large crowd. Beating to Quarters was originally a signal for ships' companies to man action stations, when battle was imminent. The Ceremonial Sunset reflects the naval tradition of lowering of the ensign at sunset each day.

The Beat to Quarters on his occasion honoured the courage and sacrifice of the men and women of the RAN who have served their country for over one hundred years in war and peace. The featured a rendition of "My Island Home" as a fitting tribute to the beautiful country we do call home. The Ceremonial Sunset was then performed.

Seminar & Book Launch

Earlier that morning the Commander of the Fleet Air Arm, CDRE David Frost, had addressed a good gathering of serving and former RAN personnel as part of the Australian Naval Institute's "75 Years of the FAA" Seminar.

He talked about the present FAA, its structure, aspirations and challenges, and spoke with pride about the qualities of excellence and professionalism that had always been a hallmark of the Fleet Air Arm, and remain so today.

His presentation was followed by a 'FAA - 75 Years in Perspective' segment by LDCR Desmond Woods, most recently the Editor of the new "Flying Stations II' book, and finally a 'FAA Future' dissertation by CAPT Todd Glynn.

On completion of the Seminar the delegates moved to the floor of the FAA museum, where VADM **Tim Barrett** officially launched the second volume of our seminal History "Flying Stations". Five years in the making, this volume picks up from where the last one left off - in 1998, when the Kiowa and HS748 were still in service, the Sea King still had 15 years to run, the S70B was less than half way through its life and the Kaman Seasprite was the bright light on the horizon.

A great deal of water has passed under the bridge of time since then, and Flying Stations II is a worthy successor to bring any interested reader up to date on what the FAA has been up to in the last 25 years. ✈

Open Day and FCM

The Smorgasbord of goodies just kept coming with the Albatross Open Day on Saturday 22nd October. The gates opened at 1000 on, miraculously, a fine sunny morning allowing the crowd to witness flying demonstrations by FAA aircraft new and old (the latter courtesy of HARS). It was followed by the FAAAA's Federal Council Mtg. ✈

FAAAA Federal Council Meeting October 2022

The Federal Council Meeting is essentially the Annual General Meeting of the Fleet Air Arm Association and is is generally held in the third week of October each year. It is attended by Delegates from every Division, and by the members of the National Executive.

Thanks to COVID the last two meetings have been virtual, but we were able to gather most people together in this year, with "Zoom" facilities to allow people who could not be there in person to tap in to the meeting.

The Minutes of this meeting will be posted on our website in due course, but the highlights of the event are set out below:

CDRE **David Frost**, the Commander of the Fleet Air Arm, gave a very entertaining, open and frank presentation on the FAA and its current status, goals, problems and aspirations. He also made it clear that he is keen to meet with FAA veterans and, in his travels around Australia, will be happy to meet with Divisions whenever the opportunity presents itself. We are indebted to COMFAA for the time and energy he is devoting to us in what is an extremely busy job.

Professor **Michael Hough** attended the meeting to thank the Association for recent donations made to HARS in support of the Naval Heritage Flight. He gave a short and very welcome presentation on the aircraft of the Flight and their status.

The President, Mark Campbell, is stepping down from his role but hopes to return in the future. In the meantime he is happy to offer his advice and assistance in a "Past President" capacity.

All office bearer positions in the National Executive were shed, and an election held for nominees for these positions. All volunteers were unanimously elected as follows:

National Vice President - **Phil Carey**
National Secretary - **Terry Hetherington**
National Treasurer - **James Caldwell**
National Database Manager - **Paul Norris**
National Webmaster - **Marcus Peake**

There were no nominations for the position of National President. Until one is secured, the role will be filled in an advisory capacity by Mark Campbell and by a 'committee of taste' comprising the above members.

There was no nomination for the position of Slipstream Editor. All Divisions are asked to again canvas their members to see if a volunteer can be secured. In the meantime, Mr **Ron Batchelor** has offered to produce the December 2022 edition and the National Executive will explore options beyond that.

Life Time Membership awards were made to **John Stewart** for his extraordinary service to QLD Division over many years, and to **Marcus Peake** for his work in the National Executive.

National Body fees and charges were fixed at the same rate as last year - this must be the only rates in Australia that aren't going up!

The next meeting will be on Saturday 21 October 2023. Sounds a long way off but at the rate time flies, it's really just around the corner. ✈

WE'D LIKE YOUR SERVICE DETAILS

Every person on our mailing list has a small record which tells us their name and contact details to enable us to send them *FlyBy* and, where applicable, *Slipstream* magazine.

We have Service details for a few people but not all. Such details are useful to understand your background and to help honour you, if and when the time comes.

We have set up a new on-line form to capture the information for those who wish to tell us. It is unobtrusive and easy to do. The data you give us will be stored securely in our database which is not on any server (so it can't be hacked off the internet), and is NEVER given to a third party.

The form also allows us to store more personal information should you wish. This might be, for example, a few notes to help someone write your Obituary. We don't want to hasten this event but we are all human and there are some, like the Editor, who would rather write something for himself than have someone else fumble it when he falls off the twig.

You can easily access this form if you wish to participate. Simply click **here**, fill out the form and then click on 'Submit'. We will do the rest.

You can ask for your personal data to be removed at any time.

Webmaster & DB Manager.

A LOAN OFFICER

THE STORY OF BILL HENLEY

by Graeme Lunn

Course photographs are a service tradition, marking significant milestones in a person's career and jogging memories of long ago friendships. Some course photos are also of historic significance. One such is the 1948 course photo of No.1 Naval Air Pilots Course, which foretells the commencement of our modern Fleet Air Arm and also contains a mystery!

In the centre of these eager ratings and recruits sits an officer with an 'A' in the ring of his Lieutenant's braid and pilot's wings on his sleeve, named in the attribution as Lieutenant 'Paddles' Henley. Henley's name is only distantly recalled among the multitude of Royal Navy loan officers who were vital to the formation of the Australian Fleet Air Arm. In his person, however, Bill Henley exemplified the calibre of those loan officers who helped establish the FAA's lasting base of professional ability and unswerving dedication to naval aviation.

Towards the end of 1946 the Naval Board in Melbourne asked for three senior Royal Navy loan officers to man the proposed Aviation Planning Office. Sent out were Captain Edmund Anstice (later Vice-Admiral Sir Edmund Anstice), Commander (E) Arthur Turner DSC (later Admiral Sir Arthur Turner) and Commander (S) Bernard Robinson. The junior, and sole Australian, in the office was Lieutenant-Commander Victor Smith DSC* RAN (later Admiral Sir Victor Smith) who had been tasked from August 1945 with preliminary staff work in the UK for the Australian Naval Aviation Plan.

At the end of World War Two the Royal Australian Navy, unlike most allied navies including New Zealand, had but a handful of aviation specialists despite a final wartime complement of 40,000 and over 300 vessels. This meant that, in addition to the three specialist loan officers in Navy Office, literally hundreds of Royal Navy senior sailors, warrant and commissioned officers would be required for loan service in its formative years to assure the success of the new Air Branch.

The 1947-48 Air Plan that the Aviation Planning Office produced called for capital expenditure of £3.9 million to cover the commencement of recruiting and training several thousand personnel to man an Air Branch, order its aircraft and acquire a carrier. The Air Plan would also fund the establishment of an air stores organisation and upgrade work at the paid-off RN *Nabbington-Nabswick/* Mobile Operational Naval Air Base at Nowra.

On 7 December 1947 four ratings and ten recruits reported at *Cerberus/*Flinders Naval Depot to form No.1

***Above**. No.1 Naval Air Pilots' Course photo taken at RAAF Point Cook in 1948, the graduates of which became a building block of our new Fleet Air Arm. The caption names the Course Officer sitting front row centre as LEUT "Paddles" Henley. The Probationary Pilots are: [1] Mick Streeter [2] Hank Hurley [3] Bill Sweeting [4] Clive Van Der Lilly [5] Fred Lane [6] Colin Champ [7] Noel Creevey [8] John Roland. [9] Dick Sinclair [10] John Herrick [11] Garth Eldering [12] Ian "Tas" Webster [13] Ian "Scotty" Macdonald, and [14] John Harwood.*

NAP Course. Moving on to RAAF Point Cook's No.1 Flying Training School on 23 March 1948 they commenced pre-flight ground school, to be followed in July by DH.82 Tiger Moth and CAC Wirraway flying training as Probationary Pilots. No.2 NAP Course formed four months later on 4 April 1948.

One of three 'RN nurses' supervising both courses until graduation as Pilots Fourth Class in July 1949 and February 1950 - prior to their proceeding to the UK for Operational Flying Training - was Lieutenant (A)(P) Maurice 'Bill' Henley DSC RN. Flying Fireflies, Bill had disembarked to Point Cook with the rest of 812 Squadron during *Theseus's* visit to Melbourne in July 1947. Next loaned for two years' service in Australia he had sailed out aboard *Orion* that December. Bill took up his duties on 2 February 1948, initially at *Cerberus's* New Entry School (Airmen Branch), and then from January 1949 at RAAF Point Cook. Not a Qualified Flying Instructor Bill was appointed Naval Ground Instructor for No.1 FTS and became Senior Naval Officer in October 1949.

A war-weary Swordfish II on patrol. Note the Air to Surface Vessel (ASV) high gain "Yagi" radar antenna fixed to the strut in the foreground aircraft. Although rudimentary by today's standards, it was still capable of detecting a large ship at a range of up to 60 miles. It was less effective against the smaller U-boats but still played a pivotal role in the Battle of the Atlantic, including thwarting many attack opportunities. (IWM).✈

The mystery is that people who knew Bill say it is not him in the course photo. Believed to be taken at Point Cook, before the fourteen trainees started being whittled down by their RAAF flying instructors to the graduating eight, dates it to be no later than July 1948. Coming out with Bill in the *Orion* for loan service had been fellow Lieutenant (A)(P) John Pullen who had flown Hellcat FB.II fighters off *Ameer* and *Empress* in the Pacific.

While Bill went to staff the New Entry School in February 1948, John went to RAAF Point Cook as the NGI to await the class that Bill sent on to him in late March. John was the only naval officer at the base until May, when Lieutenant-Commander (A)(P) Stanley 'Stan' Keane DSC was posted in as Senior Naval Officer (see *FlyBy* October 2022). So the Lieutenant in the photo is certainly John Pullen and not Bill Henley. When John posted on to the Naval Air Organization and Training Division at Navy Office in January 1949 Bill took over his NGI duties.

Maurice William Henley, forever known as 'Bill', was born in London on 25 March 1923, and was educated at the Roan School for Boys in Greenwich before joining the National Provincial Bank. While London was being targeted by the Luftwaffe he served as a teenage air-raid warden in Lewisham, with his enlistment suffering a hold-up when the local recruiting station was bombed.

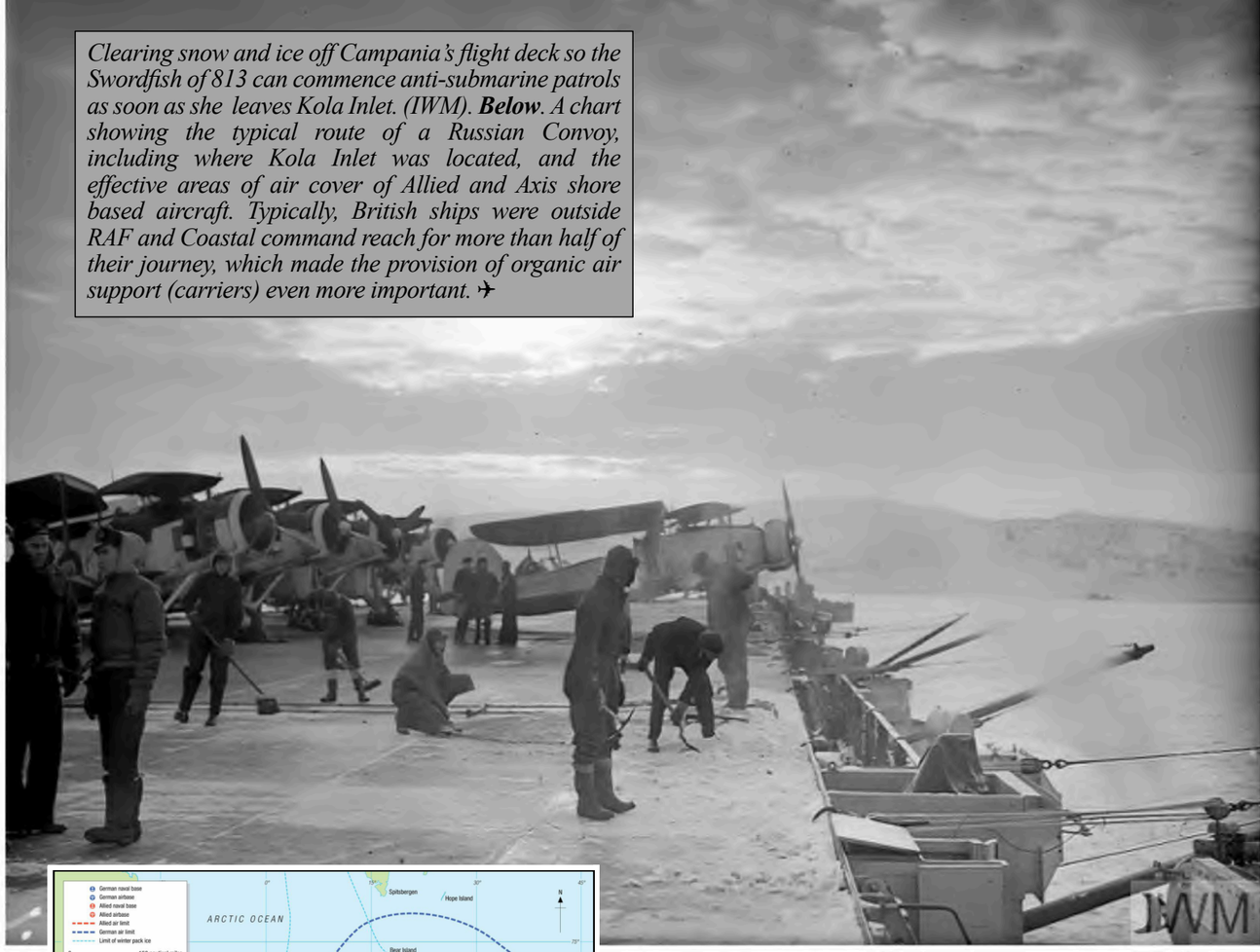
Joining as a Naval Airman 2nd class at age eighteen in 1941, Bill was awarded his provisional aviator wings after training in Canada. Promoted Midshipman (A) Royal Naval Volunteer Reserve in October 1942 he commenced Operational Flying Training on Fairey Swordfish aircraft at *Jackdaw*/Naval Air Station Crail. Temporary Sub-Lieutenant (A)(P) Bill Henley was posted to 813 Naval Air Squadron when it reformed at *Merlin*/Naval Air Station Donibristle on 1 November 1943.

Re-equipped with nine new Swordfish IIs the squadron was augmented with three Fulmar fighters in March 1944. A further four fighters, Wildcat Vs, were added before the composite Squadron embarked on the 12,450 ton escort carrier *Campania* from *Shrike*/Naval Air Station Maydown on 26 April 1944. From June a trickle of Swordfish IIIs were taken on strength.

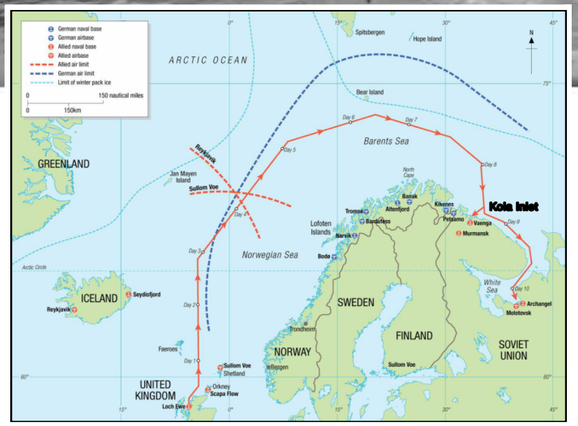
Of practical, albeit near-obsolete biplane design, 813's 'Stringbag' (after a housewife's all-purpose string shopping bag) Swordfish aircraft, especially when fitted with the latest technology ASV (Air-to-Surface Vessel) radar, were still potent opponents. Correctly tasked they continued to score major successes against the enemy in these later years of the war. The airframe was docile and positive in handling, robust in deck operations and agreeably slow on approach to a pitching flight deck.

With ship and squadron deck work ups completed by late May *Campania*, 813 and Bill commenced their raisin d'être - convoy escort. First, under Western Approaches Command, they escorted six West African and Mediterranean convoys. Transferred to Home Fleet *Campania* sailed from Scapa Flow in mid-September escorting her first Russian Convoy, JW-60 from Loch Ewe to Murmansk.

On December 10, with five arctic convoys escorted, plus an interlude of Norwegian mine laying and coastal ship strikes in late October, *Campania* prepared to lead the twenty-eight merchant ships of Convoy RA-62 south from Murmansk to Loch Ewe and the Clyde. Flying his flag in *Campania* was Rear-Admiral Rhoderick McGrigor whose force comprised a second escort carrier *Nairana*, cruiser *Bellona*, and the Sixth and Seventeenth Destroyer Flotillas. The escort carriers and cruiser sailed with the main body flying off anti-submarine and fighter patrols as soon as they cleared the Kola Inlet.



*Clearing snow and ice off Campania's flight deck so the Swordfish of 813 can commence anti-submarine patrols as soon as she leaves Kola Inlet. (IWM). **Below**. A chart showing the typical route of a Russian Convoy, including where Kola Inlet was located, and the effective areas of air cover of Allied and Axis shore based aircraft. Typically, British ships were outside RAF and Coastal command reach for more than half of their journey, which made the provision of organic air support (carriers) even more important. ✈*



Only four days before, as the inbound convoy JW-62 had approached Kola Inlet, Wildcats shot down a shadowing Bv138 Seedrache (Sea Dragon). The same day the Swordfish of Sub-Lieutenant's (A)(P) William 'Hutch' Hutchinson and (A)(O) Alexander Farningham had depth charged a lurking U-boat of Wolfpack Stier (Bull) - which had been formed on 21 November with eighteen U-boats. This Swordfish crew would still have been shaken having hit the round-down two nights previously when heavy seas caused a sudden violent pitch up of the flight deck, breaking the fuselage in two with both halves fetching up against No. 1 wire.

One day before Convoy RA-62 was scheduled to sail, anticipating the joint U-boat and torpedo bomber attacks which had been so deadly against previous convoys, McGrigor ordered the close escort force to leave the Kola Inlet for the partially frozen waters of the Barents Sea. In a preemptive sweep with Russian destroyers against the assembled wolfpack the corvette *Bamborough Castle* sank *U-387* with the loss of 51 men.

Also part of the 13th U-boat Flotilla's wolfpack was U-365 under the tactically aggressive Oberleutnant zur See Diether Todenhagen. On 11 December she torpedoed and badly damaged the destroyer *Cassandra* with the loss of 62 lives. The frigate *Bahamas* was detailed to tow *Cassandra* back towards Murmansk further weakening the escort force. Despite these losses when the convoy was attacked by Ju88 torpedo bombers the next day a spirited defence saw no ships hits and two of the attackers shot down.

On 13 December, three days out of Murmansk, faint wireless transmissions detected off the convoy's port quarter led to Swordfish GK attacking the submerging U-365 at 15:31. Knowing Todenhagen's U-365 was on the hunt, two Swordfish IIs launched from *Campania* at 15:55 on a hunt of their own in that long midwinter dark above the Arctic Circle.

•The only thing that ever really frightened me during the war was the U-boat peril•

Winston Churchill *The Second World War. Vol 2.*

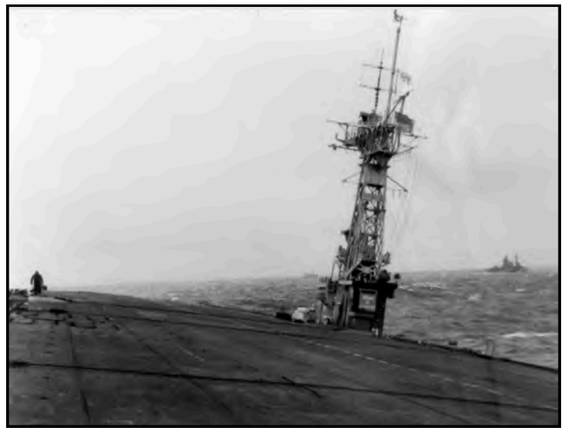
Swordfish GQ was flown by the now experienced 21 year old Sub-Lieutenant (A)(P) Bill Henley and the squadron's Senior Observer Lieutenant (O) Cyril 'Chappers' Chapman. Both had been with the squadron since it reformed, and Chapman had briefly been acting squadron CO when the previous CO and his crew had failed to return from an Arctic anti-submarine patrol. Swordfish GL was crewed by Hutchinson and Farningham, no doubt eager to replicate their attack of the previous week. All four were RNVR 'hostilities only' officers.

A contact east of Jan Mayen Island was picked up by Henley's Observer, but they suffered a setback when the radar broke down. Flares and depth charges were released at the datum without visible success and, bitterly disappointed, both aircraft banked to return to the carrier. But as they did so, Swordfish GL's Observer detected another radar contact. Quickly releasing more flares U-365 was revealed running on the surface.

Bill immediately carried out a text-book perfect attack with Swordfish GQ. His three depth charges straddled the U-boat so accurately that one even bounced off the submarine's casing before exploding. Further flares revealed the upturned hull of an apparently sinking U-boat surrounded by oil and debris. The encounter was logged by intelligence officers as a 'probable' kill only, but German documents seized after the war confirmed U-365 had been destroyed with the loss of all 50 hands.

Although Wolfpack Stier lost two of their number they sank seven ships in addition to damaging *Cassandra*. Both Henley and Hutchinson were later awarded the Distinguished Service Cross. Bill's citation noted his *"gallant service, endurance and devotion to duty … in Arctic seas while escorting convoys to and from north Russia"*. Throughout these harrowing months Bill's colleagues in *Campania* would remember his modesty, quiet charm and continued sense of humour.

Bill did not receive his DSC until on loan service in Australia. At Melbourne's Government House Investiture of



***Top**. This painting depicts the struggle of the so called Battle of the Atlantic, where German U-boats threatened to cut off Britain's life blood. Early convoys had periods without any allied air cover, but the increasing numbers of small Escort Carriers ensured organic air support, and with better tactics and technology, the balance of the battle swung towards the British. **Centre**. Bill Henley (circled) stands behind his Observer, "Chappers" Chapman. **Bottom**: Campania rolling in a heavy sea. The image shows how narrow the island structure on these escort carriers was - about 14 feet. (IWM).* ✈

***Above**. A Swordfish carrying two depth charges launches from an Escort Carrier for an anti-submarine sweep. Unlike in this image, many such patrols were in the darkness of the long winter nights, in conditions so cold the crew had to be helped from the open cockpit on return. **Left**. On 3 April 1944 while patrolling in daylight ahead of Russian Convoy JW.58 a Swordfish from Activity found U-288 on the surface. The submarine decided to fight it out with the biplane. Under heavy AA fire the Swordfish called for assistance. Lieutenant-Commander Victor Smith RAN, Staff Officer (Air) in the nearby Tracker sent an Avenger and a Wildcat into the fray. The combined depth charge and rocket attacks sank U-288 south east of Bear Island.* ✈

27 July 1949 the Lieutenant-Governor of Victoria presented the decoration. Bill was the sole naval recipient amongst several dozen army and air force personnel accompanied by their respective senior officers. The attending Rear-Admiral John Collins CB RAN, gesturing to his dress uniform with sword and medals that the occasion obliged him to wear barked: "There's only one from the Navy here and he's a bloody Pom!"

Nicknamed 'Paddles' by his RAAF colleagues at No.1 FTS, Bill was remembered by Probationary Pilot Norman Lee (later Commodore Norman Lee) of No.2 NAP Course, as somewhat dour in front of his students and slightly at odds with his ground posting. Almost certainly Bill missed flying and had a signal sent from Australia volunteering for night fighter training on return to the UK. Selected for a permanent commission in 1949, and SNO at RAAF Point Cook for his final months of loan service, Bill reverted to the RN in May 1950 again flying Fireflies. Shortly afterwards he commenced an exchange posting to the US Marine Corps Air Station at Cherry Point, North Carolina.

Next posted to 809 Squadron at *Seahawk*/Naval Air Station Culdrose Bill flew the wooden twin-engined de-Havilland Sea Hornet NF21. A development of the wartime Mosquito, specialised in the night fighter and strike role, this was a demanding type. It was also a singular looking aircraft with a needle nose to extend the radome past the interference from the large propellers.

Embarking on the 43,000 ton fleet carrier *Eagle* for the 1953 Spring Cruise the squadron lost two aircraft and three crew in a mid-air collision at 1500 feet 40 nm east of Gibraltar on 11 March while doing a flypast for General Tito of Yugoslavia. One pilot managed to bale out but his parachute became entangled in the tail plane, while an Aircraftsman in the second aircraft parachuted safely and was recovered unhurt.

809 Squadron disembarked to contribute nine Sea Hornets for Queen Elizabeth's Coronation Fleet Review Flypast of 15 June 1953. The previous Coronation Review, King George VI's on 20 May 1937 that Princess Elizabeth had attended, was centred on eleven battleships and battlecruisers. There had also been four aircraft carriers, all four having being constructed on converted hulls. Her Majesty's Coronation Review sixteen years later saw but a single battleship in the review lines. *Vanguard* had seen no war service and her second-hand 15 inch guns had come from the Admiralty Armament Reserve, where they had sat since being removed from the battlecruisers *Courageous* and *Glorious* when they acquired flat tops in the 1920s.

A never-to-be-repeated 327 naval aircraft from 36 squadrons (including 817 Firefly Squadron off *Sydney*)

participated in the Flypast. They overflew nine built for purpose fleet and light fleet carriers of the RN, RAN and RCN. The navy's fundamental shift towards air power occasioned by six years of World War, and the ongoing conflict in Korea where three carriers were in theatre, could not have been clearer.

Promoted in September 1953, Bill was back aboard *Eagle* with 809 when the unremittingly hazardous nature of flight deck operations was highlighted by tragedy. In October a Leading Air Mechanic walked into the spinning port propeller of Bill's Hornet and was killed.

Lieutenant-Commander Henley took over command of 809 Squadron in January 1954. He re-embarked the squadron in *Eagle,* taking passage to Gibraltar for exercises before returning to Culdrose in March, where the squadron disbanded that May.

Following jet conversion Bill reformed and commanded 893 Squadron at *Heron*/Naval Air Station Yeovilton on 6 February 1956. An all-weather fighter squadron equipped with six Sea Venom FAW.21s the increasingly unsettled Suez situation, following the nationalization of the Suez Canal, saw the squadron expanded to nine aircraft in June. This was achieved by absorbing 890 Squadron's remaining four aircraft, that squadron having lost two aircraft with both crews, including their CO, over five days working up with the training carrier *Bulwark.* The expanded squadron was assigned to *Eagle's* Carrier Air Group.

Bill had planned to marry Hazel Wright on 17 August in London, but the nuptials were postponed when his squadron hurriedly deployed to *Falcon*/Naval Air Base Hal Far at Malta on 10 August. Replacing *Eagle's* Gannet squadron, 893 embarked on 18 August. Finally marrying in Gibraltar, Bill was on honeymoon in Spain when the Suez became a Crisis and he was recalled. Hiring a car at great expense, he rushed back to Gibraltar to find the carrier had sailed, but an aircraft had been left behind at RAF Base North Front for him. He took off from the Rock and soon caught up with *Eagle* as her Task Group steamed towards Egypt and Operation Musketeer.

The opening attack by the Royal Air Force Valiants and Canberras from Malta and Cyprus faced difficulties because the war was planned to start on a weekend. The Officer Commanding Malta Bomber Wing received a signal from Bomber Command to prepare for a night raid on Saturday 31 October. The Air Officer Commanding Malta came under Middle East Command, who had given him no orders, so he refused permission to open the bomb dumps.

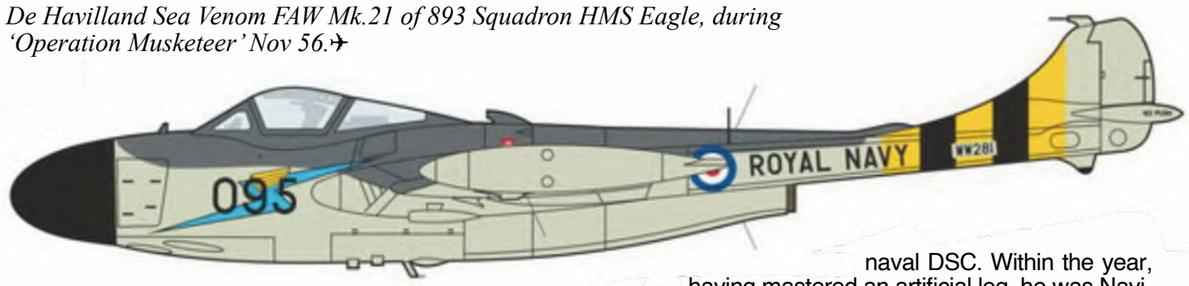
No-one in authority back in the UK could be contacted to resolve the issue as it was a Saturday and Air Headquarters was closed. In despair the OC Bomber Wing ordered the gates of the bomb dump broken down. Unfortunately the seven Canberra bombers in the first raid mistook Cairo International airport for the Egyptian Air Force Base Almaza, but fortunately their forty-one 1000 lb bombs missed anything important. Following RAF raids found the correct airfields.

Bill's squadron was part of the five carrier Anglo-French strike group that was tasked for low-level attacks against Egyptian airfields, gun positions and ground forces. Launching at 05:20 1 November Bill was Strike Leader with Lieutenant Ian Gilman as his Observer. After they had formed up in the dark Bill led four Sea Venoms of 893 and 892 Squadrons with twelve Sea Hawks of 897 and 899 Squadrons in a dawn strafing attack against EAF Base Inchas. That day the five attack squadrons from *Eagle* alone claimed thirty-two aircraft destroyed, six probables and fifteen damaged.

Next morning 893 flew a dawn Combat Air Patrol over the carrier before Bill launched at 10:35, leading five

***Below**. The De Havilland Sea Hornet NF21 that Bill Henley flew was a derivative of the famous Mosquito. Adapted for seaborne night fighting, the aircraft had an extended 'beak' to project the radome clear of the large propellers, which also necessitated long, spindly undercarriage legs ill-suited to deck operations. It was, however, a joy to fly with celebrated test pilot Eric 'Winkle' Brown remarking. "...for sheer exhilarating flying enjoyment, no aircraft has ever made a deeper impression on me than did this outstanding filly from the de Havilland stable".✈*

De Havilland Sea Venom FAW Mk.21 of 893 Squadron HMS Eagle, during 'Operation Musketeer' Nov 56.✈



Sea Venoms against EAF Base Bilbeis. Returning he paid a passing call on Inchas where a further MiG was destroyed. That afternoon Bill launched at 14:50 leading eight Sea Venoms of 893 and 892 against Almaza. On this strike Lieutenant-Commander John Wilcox, Bill's Senior Pilot, received a flak burst which damaged the hydraulics and severely injured his Observer, Flying Officer Robert 'Bob' Olding.

While Bob applied a tourniquet to his leg and self-injected morphine John, with no hydraulic assistance to the controls, flew back to the carrier in manual reversion. A wheels up flapless approach was made to *Eagle.* Luckily the arrester hook dropped with the hydraulic failure as designed and gave a green light. Bill later recounted that: "*Bob, despite his wounds, continued to call out the airspeeds during the approach in the usual way, but passed out on landing".* After treatment in *Eagle's* sickbay Bob was flown ashore to Cyprus where his leg was amputated above the knee.

Eagle claimed eighteen aircraft destroyed and seventeen damaged on this second day of strikes. Combined with the other carriers successes, and the RAF attacks, the EAF was now effectively destroyed and air superiority was a given over the battle zone. Strikes continued on 3 November, 893 conducting a midday strike against Almaza with Bill leading a dusk strike of four against EAF Base Cairo West.

The carriers withdrew for replenishment on 4 November, and on the 5 November the airborne assaults by paratroops went in at Port Said and Gamil airfield. While a section of 892 Sea Venoms flew flak suppression for the troop carriers over the Drop Zone Bill again led eight Sea Venoms against Almaza which he noted: "*seemed to have more 30mm flak than all the rest put together!"*

With the dawn seaborne assaults of 6 November flying was now predominantly cab-rank duty by all squadrons, with up to twelve aircraft at a time in the airborne stack, waiting for forward air controllers to call in strikes as needed to support the troops. But 893 was not quite finished with Almaza. That afternoon a four aircraft strike went in once more against Almaza's flak, reporting four aircraft destroyed, and before dusk an armed reconnaissance of Cairo International and Almaza was flown. When no aircraft were seen at Almaza all rockets were expended on hangars.

At midnight a US brokered ceasefire came into effect. Bill was awarded his second Distinguished Service Cross: '*In recognition of gallant and distinguished services in the Near East, October - November 1956'.* Bob, even though he was RAF, was also decorated with the naval DSC. Within the year, having mastered an artificial leg, he was Navigating in Javelin Night Fighters and retired as a Group Captain in 1984.

In December there was a need to rebuild operational strength back to nine aircraft after Operation Musketeer. Once again a second squadron, this time 892, was formally absorbed into 893 under Bill's obviously well recognized leadership. He was reunited with Hazel, who had sailed from Gibraltar with a Royal Fleet Auxiliary ship, in Malta on Boxing Day.

Bill's aviators luck held on 14 February 1957 when his port wheel went over the deck edge on a night landing run. And held yet again on 7 March 1958 when flying with Squadron Leader A Brown RCAF in a Sea Balliol from the School of Land/Air Warfare at Old Sarum. The aircraft suffered an engine failure and was a total loss in the subsequent forced landing at RAF Acklington.

Further postings included *Ark Royal's* Air Department

EXTRA

Mirror News

TURF RED STREAK COMPLETE STOCKS

WEDNESDAY, OCTOBER 31, 1956

BRITISH BOMB 5 EGYPT CITIES

Incendiaries Dropped in Combined Sea-Air Action

LONDON, Oct. 31 (AP)—British and French air and sea forces today assaulted Egypt. Cairo radio said British jet bombers dropped incendiary and high-explosive bombs on five key Egyptian airfields including Cairo when seven persons were reported killed.

Britain's Foreign Secretary Selwyn Lloyd told the House of Commons tonight that Cairo was bombed. He said the attacks were restricted to airfields.

British officials in London insisted that Cairo, a city of 3,000,000, was not considered a military target. They said the bombers were operating against military targets only.

However, Cairo radio said:

"At 8:30 p.m. local time British bombers carried out attacks on Cairo, Alexandria, Port Said, Ismailia and Suez.

"Seven persons were killed in Cairo and minor material losses occurred."

The broadcast said Cairo was bombed twice with casualties resulting in the second attack.

Ike to Meet With Leading Military Men

LATE BULLETINS

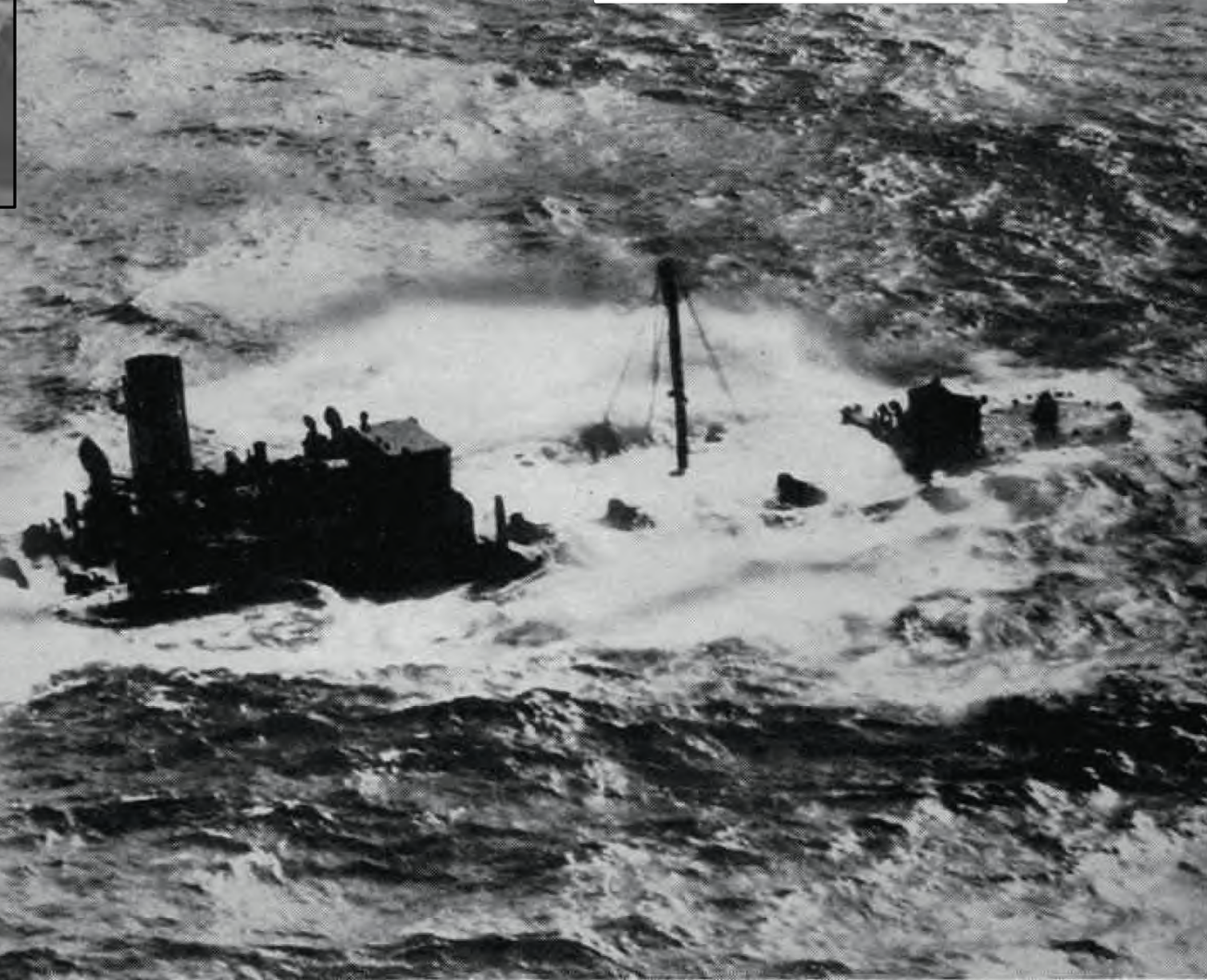
THE SUEZ CANAL—FOCAL POINT OF NEW WORLD TENSION

A US Newspaper reports on the Suez Crisis. Britain, France and Israel conspired to invade Egypt, primarily to seize control of the Suez Canal and to remove President Gamal Abdel Nasser from power. America was instrumental in compelling the British to cease hostilities before they could achieve their military objectives. The result was the humiliation of the United Kingdom and the fall of the Prime Minister, Anthony Eden.✈

Sea Venom of Henley's 893 Squadron. Damaged by AA fire over Almaza which caused hydraulic failure and prevented the undercarriage being lowered. Normally this would be cause for an ejection rather than ship-board recovery but the Observer, Flying Officer Olding, had been seriously wounded during the attack. ✈

Right. *Bill Henley in his latter years when, wearing his medals and Arctic beret, he would gather with other Russian convoy veterans in the hills above Loch Ewe where the convoys had been assembled forty years earlier.*

Below*. A stricken merchantman wallows in heavy seas. Convoy PQ.17 lost a devastating 60% of those who set out. Merchant losses overall on Arctic Convoys were 6%, double that of any other convoy route.* ✈



as a Lieutenant-Commander (Flying), and work with a beach survey team around Aden and Africa. These latter duties fostered a deep interest in geography. Bill's final posting was back to the School of Land/Air Warfare before leaving the Royal Navy in 1968, twenty-seven years after joining as a teenage air-raid warden.

Keen to continue flying Bill joined Loganair (which he called "Teeny-weeny airlines") after seeing a magazine advert. Almost entirely ex-RN or RAF there was a natural friendly rivalry between the two. He enjoyed the challenge of landing on rough airfields just cleared of sheep, and spent fifteen years flying to the Highlands and Western Isles based in Glasgow. Mainly operating Britten Norman Islanders he flew a Beechcraft 18 for larger loads and, with a clear nosecone, for the annual West Coast seal count.

Bill made many friends in the isolated communities such as Barra, where he pioneered the only beach airport in the world used for scheduled air services. A woman in a hut would wave a flag when the tide had receded enough to make it safe to land on the sand. He also piloted fixed-wing air ambulances, with a baby being delivered onboard by a nun at 7500' over Mull. Flying newspapers into Stornoway he claimed to be the "best-paid paperboy in the business". Bill retired as Loganair's Senior Pilot in 1983.

During long hours of standby for air ambulance flights Bill earned an Open University degree in Geography and Geology. This was followed by evening classes in Russian and then Chinese which he put to use on international visits including five trips to China. Bill became a member of the Royal Scottish Geographical Society and was chairman of its Glasgow branch. He also supported and raised funds for King George's Fund for sailors, now known as Seafarers UK.

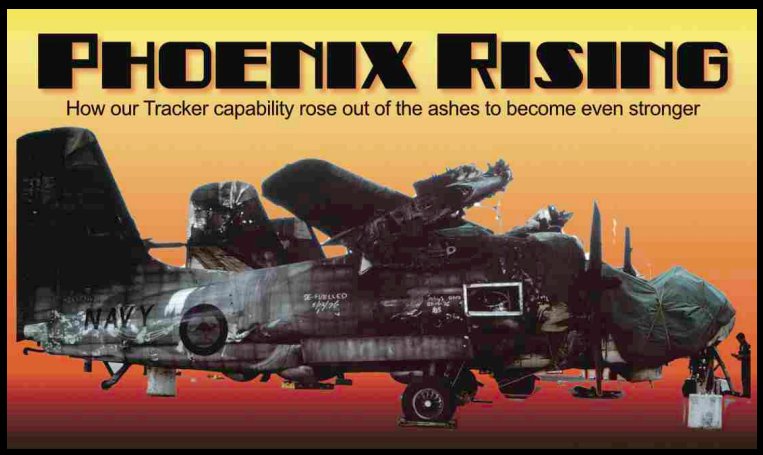
In his later years Bill Henley, wearing his medals and Arctic white beret, would return to Loch Ewe, where those vulnerable merchant ships had assembled in 1944-45, for reunions of the Russian Convoy Club. Bill died in 2011 before the Arctic Star was issued. Approved by the Queen in late 2012 the award was for those who had served seven decades before, undertaking what has often been described as "the worst journey in the world." ✈

Feature Stories

Next Month in 'FLYBY'

COMFAA Update on the FAA

The Head of the FAA gives us an update on what his men and women have been doing in recent months.



Phoenix Rising

In Dec '76 the FAA suffered a catastrophic blow when all but one of its S2 Trackers were damaged or destroyed. The story of how it rebuilt its capability is an extraordinary one.

The RAN Mission With the UN Emergency Force II

Geoff Ledger and colleagues take a look back to what the RN FAA did in '77.

The RAN's Sea Fury

Re-digitised and refreshed, this complete history tells the story of our first Fighter-Bomber.