



Edition 76 - December 2023

Fly By



Editorial

By M.C. Peake - Editor, 'FlyBy' Magazine



Each year I mention that Christmas, although a joyous and fulfilling time for most of us, can be devastatingly lonely for others. Those who are alone, or who have lost their way or can't talk to loved ones can become even more isolated.

Fortunately there's an Aussie characteristic called mate-ship. We treat people the same and, when they are down, we offer them a hand up. It's all about giving a fair go.

So, look around you. Got a feeling that someone you know isn't behaving as you would expect? Do they seem out of sorts? More agitated or withdrawn? Or are they just not themselves? Trust that gut instinct and start a conversation. It could change their life.

There's a brilliant website that will tell you what to look out for and how to have that conversation, and who to contact if you think help is required. It's called "RUOK?" and you can find it [here](#).

As I look back on the last 12 months I'm amazed how quickly it has gone. It's something to do with the speed of light accelerating as you get older, I think. Whatever the reason, here we are in the Christmas season again in the blink of an eye. During that time we (the FAAAA) have, despite a significant lack of volunteers, managed to continue with all of our functions and the production of *Slipstream* and *FlyBy* magazines.

It's been a while since we published a COMFAA update, but this edition will bring you right up to speed on what's going on in the FAA - which is to say, a lot. COMFAA has had a change of command - after two years in the job **CDRE David Frost** has packed his winter woolies



06

to take up a position in Washington, DC. He has left command of the Fleet Air Arm in the very capable hands of the newly promoted **CDRE Matt Royals**, who has been D/COMFAA for the last couple of years. This edition of *FlyBy* brings you a short bio. by means of an introduction, and we wish him all the very best in his extremely busy and challenging job.

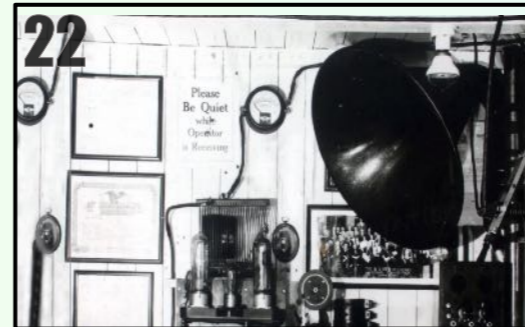
Finally, in my last few words of 2023, it remains for me to thank all readers of *FlyBy* for your encouragement and support throughout the year, and to wish you all a wonderful Christmas. May it bring all that you would hope for - primarily peace, health and happiness.

For my part, my fervent wish is that in the coming year we continue to look out for each other. Perhaps that's worth thinking about as a resolution as 2024 reaches out to beckon us with her bony finger.

Marcus Peake. Editor.



40



22

THIS MONTH



26

REGULARS

02

Editorial

A few words and thoughts from the Editor of this magazine.

13

FAA Wall of Service Update

The status of orders for Wall of Service Plaques.

13

Know Your Benefits

Jim Bush's snippets on what you may be entitled to.

02

Rest In Peace

We remember those who are no longer with us.

REGULARS

12

Letters to the Editor

This month's crop of correspondence from our Readers.

18

Mystery Photo

Last month's Mystery answered, and a new one presented for your puzzlement (p17).

34

Around The Traps

Bits and Pieces of Odd and Not-so-odd news and gossip.

FEATURES

04

Meet The New COMFAA

A few words in the way of introduction to the new head of the FAA.

06

COMFAA Update

CDRE Matt Royals brings us an update on what the FAA has been doing for the last few months.

22

HMAS Albatross

It turns out the old girl had a brand new task, back in the late '20s.

FEATURES

26

Light Fleet Carrier

Steve Chaplin puts the case for a replacement carrier.

40

Dream Liner

Will the Mighty Myira ever grace our skies again?

50

Subscription Reminder

Help us to stay airborne by paying your membership subs.

THIS MONTH'S COVER PHOTO



Taking a break from his 25 knot reindeer and sled, Santa has upgraded to a more efficient system to deliver presents to HMAS *Anzac* and JS *Izumo* during Exercise Endeavour

(Image: Composite).

REST IN PEACE

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



Neil Ferguson, Rod Coupland, Richard (Dick) Grezl, Noel Knappstein, Donald Debus

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

FLYBY is a periodical of the Fleet Air Arm Association. The views expressed within it are not necessarily endorsed by the Association or any of its agents.



Commodore Matt Royals joined the Royal Australian Navy in 1990 and graduated from the Australian Defence Force Academy in 1992. He then commenced seaman officer training at HMAS Watson and served his qualified years as Officer of the Watch and Gunnery Officer in HMAS Success.

Commencing Basic Observers Course in 1997, Matt received his wings as dux of number 40 Observers Course in 1998 and commenced Sensor Operators course on the S-70B-2 Seahawk helicopter.

In 2000, Matt commenced a loan posting to the Royal Navy and qualified as a TACCO on the Lynx Mk 3 Maritime Attack Helicopter. He also dual qualified on the Lynx Mk 8 DSP and served in Lynx flights in HM Ships Glasgow, Somerset, Edinburgh and finally York as the Flight Commander. His operational highlights of the loan were flying in Sierra Leone in support of International Military Assistance to Sierra Leone in 2001, and as Flight Observer in HMS Edinburgh for the Iraq Conflict of

Meet the new COMFAA

2003; where he flew combat missions in support of the Al Faw peninsula campaign and force protection for HMS Ocean.

Matt Royals returned to Australia in January 2004 to perform the duties of Staff Officer Policy in the Aviation Headquarters for one year prior to taking up post as the Senior Naval Officer at the School Of Air Warfare in RAAF East Sale. Three years were spent in Sale instructing ab-initio Observer and RAAF ACO students on the King Air 350 before returning to HMAS Albatross as the Commanding Officer of 805 Squadron.

After decommissioning 805 Squadron in June 2008, Matt was employed as Staff Officer Projects Aviation in the HQFAA and managed a small team to provide Navy Aviation's requirements to all aviation and aviation related Minor and Major Projects as well as future requirements.

Matt Royals completed Australian Command and Staff Course in 2010. He joined NPCMA as the Aviation Career Manager in December 2010 before taking on the position of Deputy Director Navy Aviation in Navy Strategic Command in November 2012.

In 2015 Matt completed his MH-60R conversion course prior to taking Command of 725 Squadron in December that year.

Promoted to Commodore in November 23, he undertook the role of Deputy Commander Fleet Air Arm in November 2020, now Commander Fleet Air Arm.

Matt married Sarah whilst on loan to the Royal Navy and they have three sons. He is a passionate supporter of all things Rugby (especially as a loyal lifelong Parramatta Eels supporter) and Cricket, enjoys swinging golf clubs when he can and keeps fit swimming laps.

Please Can You Help...



Steve Long is still beavering away to capture the story of the RAN's Westland Wessex helicopters, and needs far more material.

So, for the hundreds of people who haven't yet responded, please can you help out with a few paragraphs about your Wally Experiences?

What you write is up to you, but some suggested topics might be:

- Your favourite Wally, and why.
- The best/worst thing about the Wessex and why.
- Particular jobs that you did which were memorable.
- Learning your trade on the Wessex.
- Engine and gearbox changes.
- British engineering!
- Trying to keep the Wessex serviceable.
- Maintaining/flying Wessex off Sydney/Melbourne (or any other ship).
- Working in cold and draughty Albatross hangars.
- Looking for submarines.
- The accident you had, or nearly had (close shaves)
- How the Wessex compared to its predecessor/successor.
- Detachments you remember.
- Detachments you'd rather forget (but can't).
- Night engine-off landings.
- Navigation exercises you remember, or would rather forget.
- Operation Bursa maintenance.
- Operation Bursa operations.
- The mates you worked with on the Wessex.
- Anything else you'd like!

Send your input to Steve Long [here](#). →

COMFAA

UPDATE



fleet will take, the latter ultimately dictating the future operating environment for the capability we field. As it was in your day, it is in ours, and workforce is something we never take our eye off.

We need you to continue to highlight the excellent career you enjoyed and the potential that exists for those you meet. We will not be able to realise the full potential of naval aviation without the fine people willing to serve our nation and contribute to this privileged team. I will do my best to uphold the connections you have had with CDRE Frost, and rest assured I do not envision the instigation of any radical or large scale changes under my command. I require our people to be the best version of themselves both personally and professionally as this will guarantee and uphold the legacy you have created. The following is a summary of our FAA in 2023.

Fleet Air Arm "Unrivalled"

Training

Basic Rotary Training has excelled within 723 Squadron. The Squadron was awarded the 2022 McNichol Trophy and their noteworthy achievements led to them being announced as runners-up in the Gloucester Cup – the award given to the most effective of all fleet units. This is great recognition of the effort exerted by the people who power the Helicopter Aircrew Training System, both military and industry. Indicative of their efforts, 2023 yielded:

- a 25% increase in training output compared to 2022, and
- a 50% increase in training output compared to 2021.

Members of the FAAAA. It is my great pleasure to address you all on assuming Command of the Fleet Air Arm as of 20 Nov 23 from CDRE Frost who is now heading to the USA to undertake Naval Attaché duties in the spotlight of AUKUS. The FAA has prospered under his leadership, and following the 75th anniversary celebrations the FAA has continued to pursue the Command Pillars of Transition, Integration and Optimisation, with the latter being the cornerstone of the past 12 months.

In 2023 the FAA introduced the Romeo Group – an intermediate group between HQ and the three MH-60R squadrons designed to support and enable the FAA's primary crewed deliverable – flights at sea in support of Outcome 1. For many of

us the creation of a supporting Group that serves the three MH-60R squadrons was a natural direction, however on reflection it has been one of the largest scale changes of our collective FAA in many decades. The group will be commanded by CAPT Todd Glynn, whom many of you will know from his contribution to flying the HARS Huey, it is in its infancy, but will enable excellent outcomes for a MH-60R capability that must expand and increase its embarked presence in the years ahead.

As it has for all of Defence, and the rest of the Fleet, the Defence Strategic Review (DSR) has triggered reflection and provoked necessary questions. As a force we are poised to receive the government's direction on UAS and also what shape the surface

HMAS *Stalwart* Flight VERTREP with *Brisbane* and *Toowoomba*





HMAS Canberra Ex Indo-Pacific Endeavour



816 Squadron MH-60R

as the MH-60R force has increased to 9 deployable flights.

In addition to the normal burden of training and preparing, the Squadron was a key participant in the Avalon Airshow in Autumn, and also sent a large contingent to Coffs Harbour for ANZAC Day. This connection was upheld with recent Remembrance Day services as well. Somewhat different was also the hosting of the 'Maritime Aviation Tactics Forum' where representatives of P8s, Submarines, the Fleet, and the USN MH-60R operators attended to discuss maritime tactics and share lessons. A great element of this initiative were practical activities, first where crews prosecuted a target in the sim, and then the crews were blended (USN and RAN) to undertake further missions – proving the interoperability of our MH-60R community. In 2024 the Squadron will have dual upgraded simulators and with the separation of the ASU it is in a great position to hit its stride and aggressively deliver on the mission.

723 & 725 Squadrons
“Wings of the Albatross”
“Be Aggressive”

Operations

816 Squadron's year commenced under the new Command of CMDR Nigel Rowan as the Squadron assembled the 8th MH-60R flight before sprinting into operations. Flight and squadron tasking was as varied in nature as they were in location. Domestically, the Squadron exploited some Fleet programming opportunities to lodge on to the West coast and provide work ups for multiple submarines and frigates. This was closely followed by ASWEX where two MH-60Rs embarked in HMAS Adelaide and a third in HMAS Brisbane where they achieved a significant period of dip-gang operations against Collins Submarines, including operations with RAAF P8s and S-100 UAS from 822X Squadron. 816 were involved in some more unusual tasking this year; the commissioning activities of USS Canberra (Littoral Combat Ship) in Sydney, all flying sequences of the recently released TV Show 'NCIS: Sydney', and range support to the Japanese Ground Self Defence Force surface-to-surface missile firings from Beecroft Head.

Perhaps one of the most significant developments in both the FAA and MH-60R Community has been even greater engagement with USN operators. In the wake of AUKUS, and in an attempt to reinvigorate connections made when NUSQN 725 stood up in Florida, we have started to increase our USA footprint. With student aircrew, a QFI, other FAA positions in the USN 60R enterprise, we have now committed to sending candidates to the

This training success equates to three graduation parades in 2023 for a combined total of over 60 new rotary aircrew for the ADF as well as over 20 Aircrew instructors. Furthermore, 723 Squadron is also responsible for the initial aviation training of the RAN Remote Pilot Warfare Officers.

723 Squadron has also found some capacity within the impressive training rate to support High Profile Public Events. This is especially important with a keen emphasis on attracting Aviation Technicians above all else. 723 Squadron led FAA support to V8 Supercar events at Sandown and Bathurst, supported the Hunter Valley Airshow, and attended Avalon in amongst a multitude of school visits. Perhaps one of the Squadron highlights though would be the honour and privilege of supporting the committal of CAPT Robert Ray MBE's ashes near Point Perpendicular. This occasion highlighted the connection that members of the Fleet Air Arm build and retain amongst each other throughout our careers and lives.

Amplly supporting flying training is 725 Squadron whose mission is to 'Train and Sustain the Romeo Force'. 2023 has dictated a very large focus on personnel and change management. Post the conversion of MRH90 personnel, 725 absorbed the maintenance teams of 816 Squadron in anticipation of the establishment of the Aircraft Support Unit (ASU) – designed to undertake all phase maintenance as a subset of the Romeo Group. The ASU has been temporarily retained within 725 Squadron until 2024 which meant 725 Squadron's size has swelled to over 350 personnel and it is currently the largest ADF flying unit. Consequently, the Squadron has had the burden of personnel management and preparation for flights



Enroute to scatter CAPT Ray's Ashes



NEOC Graduation Flypast



725 Squadron Ceremonial



HMAS Choules FOCFT



Exercise Resolute Hunter 2023

Seahawk Weapons and Tactics Instructor (SWTI) Course. This will be followed by an exchange in the years to come and is also now running parallel to a flight participating in Exercise Resolute Hunter. Conducted on the West Coast, the exercise is a Maritime Intelligence, Surveillance, and Reconnaissance (MISR) activity that seeks to incorporate as many platforms, services, and networks necessary to conduct distributed operations and inform kinetic engagements. 816 Squadron proudly represented and forged the path in 2023 which has proven a great success. It has demonstrated that our capabilities and tactics are interoperable whilst also giving our aircrew and maintainers exposure to far more complex operating scenarios for their professional growth. For 2024 this obligation will likely be filled by 816's sibling squadron who are now operating half of the MH-60R operational fleet.

808 Squadron's year has been marked by significant change. Operating in Quarters 1 and 2 of the year with a dozen people occupied with preparing to accept the MH-60R platform and expand instantaneously to 4 flights. The transfer of flights occurred in August after the creation of the MH-60R Group and while 2 of the 4 flights were deployed. Those flights were the first MH-60Rs to use the Poseidon callsign, marking the end of transition activities of the FAA from the MRH90 to the MH-60R. The success in transition and then sharing of flights has been relatively seamless courtesy of the leadership within the MH-60R Community, across all ranks and roles!

816 and 808 still have flights deployed throughout Asia and domestically. They have, and will again in 2024, undertake trials, support domestic

operations, and participate in all RAN exercises. They have had increasing exposure to DDGs & LHDs, and an 808 Squadron flight is at present forging procedures aboard the new AOR class. The detachment model employed by flights provides for much greater fleet employment, therefore increasing the exposure across the Navy and demonstrating the flexibility that is inherent with Naval Aviation.

808 & 816 Squadrons
“Strength In Unity”
“Imitate the Action of the Tiger”

Maintenance and Flight Test

2023 has provided no respite for our test colleagues. Under the new Command of CMDR Rohrsheim AMAFTU have had a very committed schedule. There have been the routine obligations that AMAFTU is well versed in. Documenting the impact structural changes on HMAS *Choules* have on flying operations and the validation of Simultaneous Rotors Running Re-arm (SRRR) equipment and procedures, in conjunction with the MH-60R community, are familiar roles for AMAFTU.

However, they have also benefited with the reengagement with the USN and have cooperated with HX21 increasingly in 2023. Sharing testing practices, supplementing workforces to undertake various phases of Digital Magnetic Anomaly Detection (DMAD) both in the USA and at home, as well as the assessment of some Electronic Support Measure (ESM) changes have been a welcome pivot towards a more tactical emphasis.



822X - Preparing an S-100 for Flight

This is continuing with assessment of Air Launched Effects in December with many of these systems requiring further assessment in 2024.

AMAFTU & 822X Squadrons
“Capability Through Test”
“See The Enemy”

Remote Piloted Systems

The release of the DSR has impacted our UAS community. Not directly, as the unit continues to operate the S-100 Camcopter, earning an excellent reputation ashore and embarked. The DSR has however created uncertainty regarding the road ahead for SEA 129-5 but the FAA's expertise in autonomous and remote controlled systems is indispensable against the future landscape of maritime warfare - this is not in doubt.

822X has had its first Remote Piloted Autonomous System (RPAS) flight throughout the calendar year which has deployed on the LHDs and MV *Sycamore*. Indicative of their growing maturity has been their participation in ASWEX 23 with P8s and MH-60Rs in the same airspace and ASW battle. This was an excellent outcome which illustrates the potential of teaming, as well as the gains made within naval aviation to evolve as a force.

822X were called on to mentor and instruct the Japanese Ground Self Defence Force in UAS range operations from Beecroft and again later in the year to provide a crucial ISR enabler to Autonomous Warrior activities, ALE trials, and the 2 Commando November Rain Exercise.

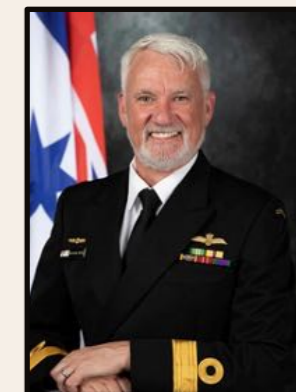
2023 and the 76th year of our FAA has been

distinct from many of our previous years. It is important for me to reflect on the risks inherent in aviation, particularly in the maritime environment.

The Fleet Air Arm mourned the loss of our Army brothers in the MRH90 ditching of July and our thoughts are with their families and peers. Coupled with the Ditching in Jervis Bay we must remind ourselves to seek excellence, hone our profession and look after our shipmates

I am incredibly buoyant about the changes we have made internally with the Romeo Group. I know we have the intellect to overcome any short term hurdles with workforce especially as our training system has shown its maturity and throughput. We have amazing capabilities that will only evolve and excitedly, the distance between RPAS and crewed operations will rapidly dissolve and I am confident that the FAA of 2024 is ready to exploit every opportunity.

Fly Navy,
 CDRE Matthew Royals, RAN
 COMFAA.





Dear Editor,

Further to the article on the Qantas hijacking in last month's edition of "FlyBy", it wasn't the first such event that had happened in Australia.

In 1960, a Russian terrorist named Alex Hildebrandt tried to hijack Trans Australia flight 408, a Lockheed Electra L-188 aircraft bound for Brisbane and under the command of Capt. John Denton.

Just prior to descent Hildebrandt, an unemployed labourer, emerged from the plane toilet where he had constructed a gelignite bomb. Whilst it was far from a sophisticated device it was capable of causing a major explosion that could have killed everyone on board.

When he'd returned to his seat, he also pulled out a cut-down .22 rifle, pointed it at the flight attendant and demanded to see the captain.

To cut a long story short, Tom Bennett, the First Officer, smuggled the fire axe back to the rear lounge where a positioning Flight Engineer, Dinny Lawrence was seated, gave him the axe and briefed him accordingly.

The plan was that Tom would keep Hildebrandt talking, giving the Flight Engineer a chance to creep up from behind and whack him over the head.

Unfortunately, the hijacker sensed that someone was behind him and fired his rifle at Dinny, fortunately missing him, with the bullet embedding in the cabin ceiling.

Meanwhile, with Hildebrandt's attention diverted, Dinny took the opportunity to land a couple of punches and also tear out the wires from the home-made bomb. Drama over and a catastrophe averted.

From that time on, all Australian civil airliners carried two pairs of hand-cuffs and a police style truncheon mounted in a stowage on the flight deck.

Ted Goater.

By Ed.

Thanks Ted. I looked up the incident you mention and, sure enough, it was flagged as Australia's first hijacking. A more serious and better planned attempt than the Qantas one, 43 years later.

Hildebrandt apparently wanted to be flown to Singapore but was quickly subdued as you describe. He was charged by a Queensland court and sentenced to three years for attempted murder, ten years for attempting to destroy the aircraft and two years for carrying explosives. He successfully appealed the sentence, arguing the aircraft was actually over NSW at the time he armed his bomb.

He served a three year sentence in Brisbane for attempted murder and, on release, was immediately arrested by detectives from NSW and sentenced to seven years for attempted destruction of the aircraft.

Australia's second hijack attempt was on an Ansett Fokker F-27 aircraft in November of 1972, when a Czech migrant by the name of Miloslav Hrabinec brandished a sawn off .22 rifle in flight.

After some discussion he was told by the crew that he must return to his seat for landing, which he did. He then demanded a light aircraft, parachute and jumpsuit was subsequently shot and wounded by police before turning his weapon on himself. ✈



Understanding Your Benefits

By Jim Bush

Physiotherapy Services

DVA may cover the cost for physiotherapy treatment services for eligible veterans and beneficiaries to reduce pain and stiffness, increase mobility and prevent injury.



Holders of a Veteran Gold Card may receive physiotherapy treatment for an assessed clinical need. Holders of a Veteran White Card may receive physiotherapy treatment for an accepted service related condition covered by their card.

The range of physiotherapy services, eligibility requirements and procedures for access may include:

- exercise programs to improve movement and control
- airway clearance techniques that help to decrease lung infections and improve lung function
- soft tissue massage to improve range of motion, joint flexibility and relieve pain
- dry needling that can provide pain relief and restore movement
- water therapy conducted in a heated pool
- aids and appliances.



The full range of services and the governing policy is set out in the DVA web information page and may be read [here](#).

FAA Wall of Service Update

else in the world. It is a really great way to have your service to Australia recorded.

It is easy to apply for a plaque and the cost is reasonable, and far less than the retail price of a similar plaque elsewhere. And, although it is not a Memorial Wall, you can also do it for a loved one to remember both them and their time in the Navy.

Simply click [here](#) for all details, and for the application form. ✈

Have you thought about getting your name put on the FAA Wall of Service?

It's a unique way to preserve the record 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 of photo above right).

There are over 1000 names on the Wall to date and, as far as we know, it is a unique facility unmatched anywhere

- Current applications in Order No.53 are as follows:
- R.J. Cluley LS ATA S113325 Jul 72 - Jul 81.
 - D.R. Hooper WO ATA S133260 Apr 82 - Apr 06.
 - M.A. Sandberg ABATWL S125208 May78-May88.
 - E.D. Sandberg LCDR(O) O1024 Apr50-Sep90.
 - A. Clark CAF(A) R35828 Mar48-Mar63.
 - A. Gillam CPO ATWO/ETW S118699 Jan76-Jan96
 - B. Thompson LS ATC S128255 Mar80 - Jan93
- We have to wait for a minimum order size before we can submit to the Foundry, so there will be a delay.



Dear Editor,

Re **Bob Tingey's** Huey ditching in JB, I was in Vietnam at the time of the event and on return to 723 the following year inquiry of the hangar troops offered the opinion that it was a FCU defect. Don't recall seeing an official report.

I had a similar event in the civilian world while flying their version of the UH-1H, accelerating after take off from an oil rig the Nr/N2 drooped from the normal 6,600 to 6,000 for no apparent reason and almost immediately returned to normal. Approach at home base was basically a power on autorotation, just in case.

After the flare at the bottom and pulling power there was nothing there, engine was at idle. I disembarked the passengers and baggage there and then on the grass alongside the runway, placed the FCU in manual mode and hovered to the landing pad whereupon placing the FCU back into auto mode with maintenance troops overseeing revealed normal operation. FCU changed.

Sticking valves/components in FCU's are not unknown, flying an S-76 one engine began running up and down over a considerable range of torque, given to maintenance and Chief Pilot who were unable to fault. On the next trip after thirty five minutes of normal operation the problem engine dropped to zero torque, a matter of seconds later it ran away to full power. Disassembly revealed the shaft driving the counter weights had sheared.

Fly Safe, **Brian Abraham.** ✈

Dear Editor,

It was interesting to read about Donald Campbell in the last couple of editions.

I remember seeing him and Bluebird on the

shores of Dumbleyung Lake December 1964. There was no security at all and it was possible to get up close and personal - to a certain extent - in all areas.

At the time I was 10 years old and on crutches. I was returning home from Dumbleyung hospital where I had just had a full plaster cast removed from my left leg after suffering from osteomyelitis.

Until I joined the RAN in 1971 I lived on the family wheat and sheep farm at North Kukerin, about 20 kms away.

Donald Campbell, Bluebird and his entourage were quite an attraction and as far as I'm aware nothing like this event had ever happened before in the area.

Of concern to Campbell and his attempt at the water speed record were the many ducks that fondly called Lake Dumbleyung home. These ducks had to be cleared and kept off the course before any runs by Bluebird were carried out. My father told me that any ducks that were sucked into the engine would come out the other end plucked and cooked and I believed him! Of course this wasn't true, as any of us who have worked on jet engines know only too well that the engine would probably have ended up in only marginally better shape than the duck.

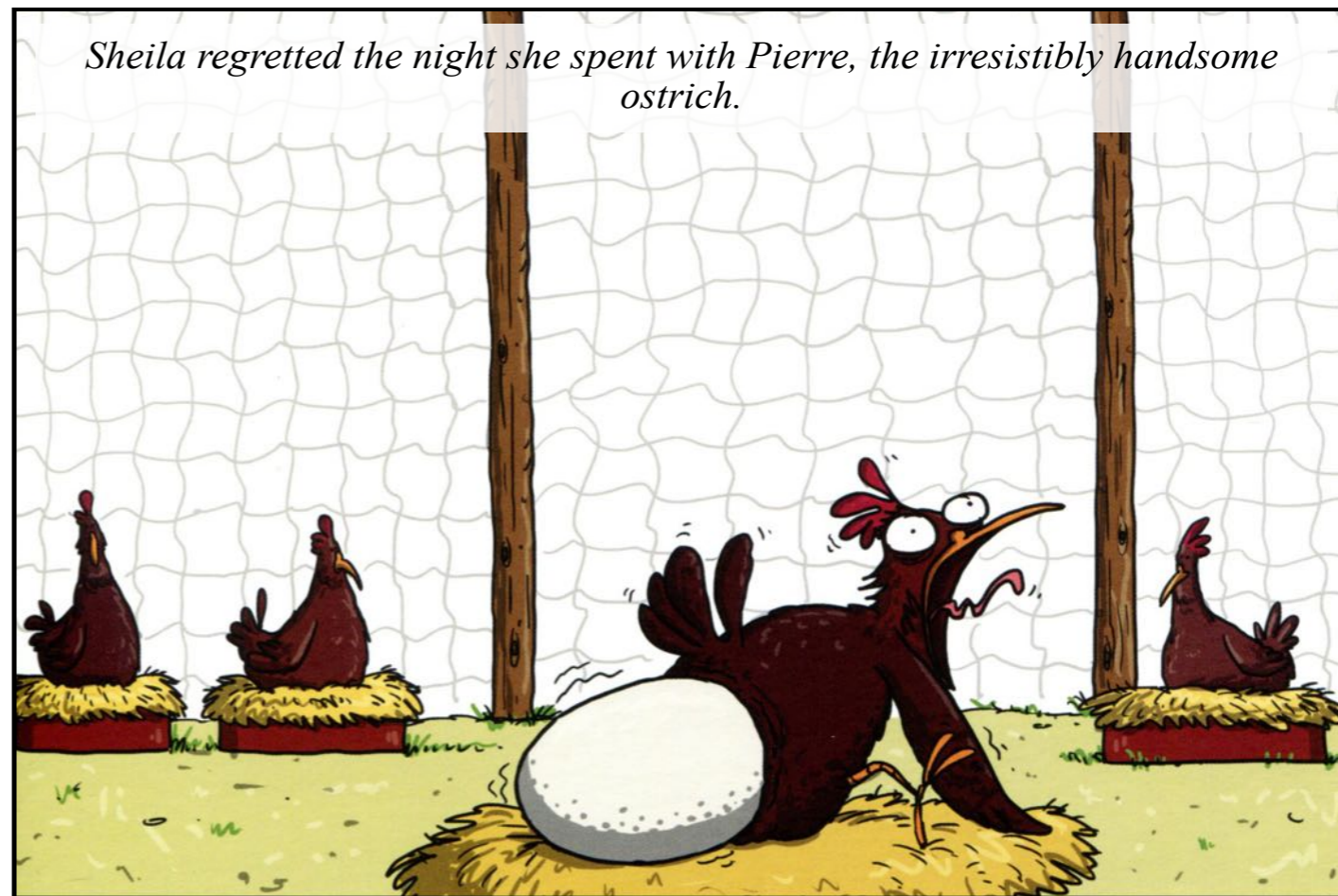
The town of Dumbleyung has a Bluebird festival every year and a Bluebird replica is housed in a dedicated memorial in the main street.

Cheers, **Danny Joyce.**

Thanks Danny, nice to read of a little bit of the history you shared. The BlueBird Festival is, I believe, no more as it has been replaced by a 'Taste of Dumbleyung' event, showcasing the produce of the region together with local entertainment. A sign of the times, perhaps, as younger generations wouldn't remember Donald Campbell or the Bluebird. I believe the Lake is in poor shape too - I found this photo which shows it in ill health (the brown bit in the middle is the water), although perhaps it was just a bad year. ✈



Sheila regretted the night she spent with Pierre, the irresistibly handsome ostrich.

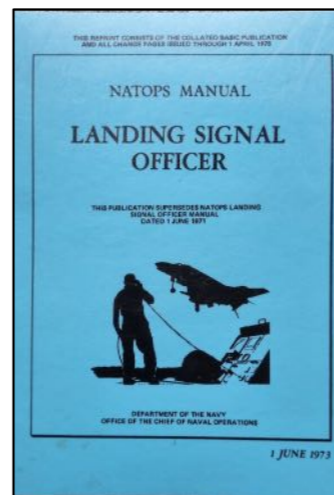


Dear Editor,

I have recently purchased and read "The Skyhawk Years" by **Peter Greenfield** and **David Prest** and wish to congratulate them on a job well done. What a mammoth task.

I understand that 50+ year old memories can be somewhat unreliable but there are two issues I would like to comment on to perhaps set the record straight.

Firstly what a great idea to have such a comprehensive glossary to explain the myriad of terms in Naval Aviation. I was one of the first four LSOs which is the acronym for Landing SIGNAL



Officer not Landing SAFETY Officer (see attached NATOPS manual cover). The name came about before optical landing systems, when paddles/bats(RN) were used to signal pilots their glideslope/lineup and speed condition - hence the standard Duty LSO callsign of "Paddles". The first 2 were **Paul Hamon** and **Graham**

Quick who remained behind at VS41 in early 1968 after completing their S2E OFS.

Keith Johnson and I went to the USN in early January 1970 to train. Keith went to NAS Jacksonville Florida (A4s) and I went back to VS41(S2Es) where I had also completed my OFS in early 1968. By the end of 1973 there were still only 4 LSOs, 3 S2 pilots and 1 A4 pilot and I can assure you I waved way more than my share of A4s at the ship both day and night.

I don't know when it happened but stopping night A4 ops was a very welcome decision certainly from an LSO's perspective. The success of S2 performance at the ship was very much down to the early adoption of the standard USN "cut pass" technique.

The second point is concerning **Phil Thompson's** recollection of his ramp strike on the night of the 1st September 1971.

I was the controlling LSO under supervision of Graham Quick finishing off my A4 night qualification. The deck was steady and within limits for an initial A4 night qual. Phil came off a high start as he correctly said, approaching the glidepath I called for "A little power" with no response rapidly followed by "Power - Waveoff, Waveoff" at the same time activating the waveoff lights. I only managed to get down on one knee,

there was an almighty bang, nobody jumped into the safety net, there was no time. I honestly thought we were dead! The Mirror Control Officer was **Lyall O'Donoghue** and I believe he jumped into his safety net.

I next remember seeing the aircraft climbing away very steeply with Graham Quick calmly talking to Phil to convince him to stay with the aircraft and head back to Nowra (Phil wanted to eject) as the aircraft appeared flyable.

Apparently my good friend **John Park** (USN exchange A4 pilot/LSO) was in the Wardroom and was sent down to talk Phil down for a short field arrest although I don't know whether he got there on time.

Phil's ramp strike was a direct result of him not following the LSO's directions.

I have not seen Phil since that night.

Peter (GT) James
Very retired ex CAG LSO

PS: For those interested there is a very good 'You Tube' channel run by **Ward Carol** an ex USN F14 RIO (Radar Intercept Officer) and previous editor of the USN safety magazine "Approach" analysing the F35C ramp strike on the USS Carl Vinson in January 2022. You can see it [here](#). ✈

Our thoughts are with our Associates in the West at the moment, who are suffering through the worst bushfires in that State for a while. Please reach out to let them know we are thinking of them.

Christmas is a time for families and friends to get together. Shops close, people gather, presents are opened, food and wine are shared. It is a time to connect and enjoy.

BE A MATE

- IT'S WORTH IT

But for some it is a devastatingly lonely time. Perhaps they have lost their loved ones, or cannot reach out to them. All around them, they see the joy of human connection and they have none.

You can reach help in a heartbeat. Ring or text them. Invite them to share a beer. Offer a meal and the hand of friendship, and in doing so, offer that missing connection.

All it takes is one phone call. A conversation could change a life.

A conversation could change a life.

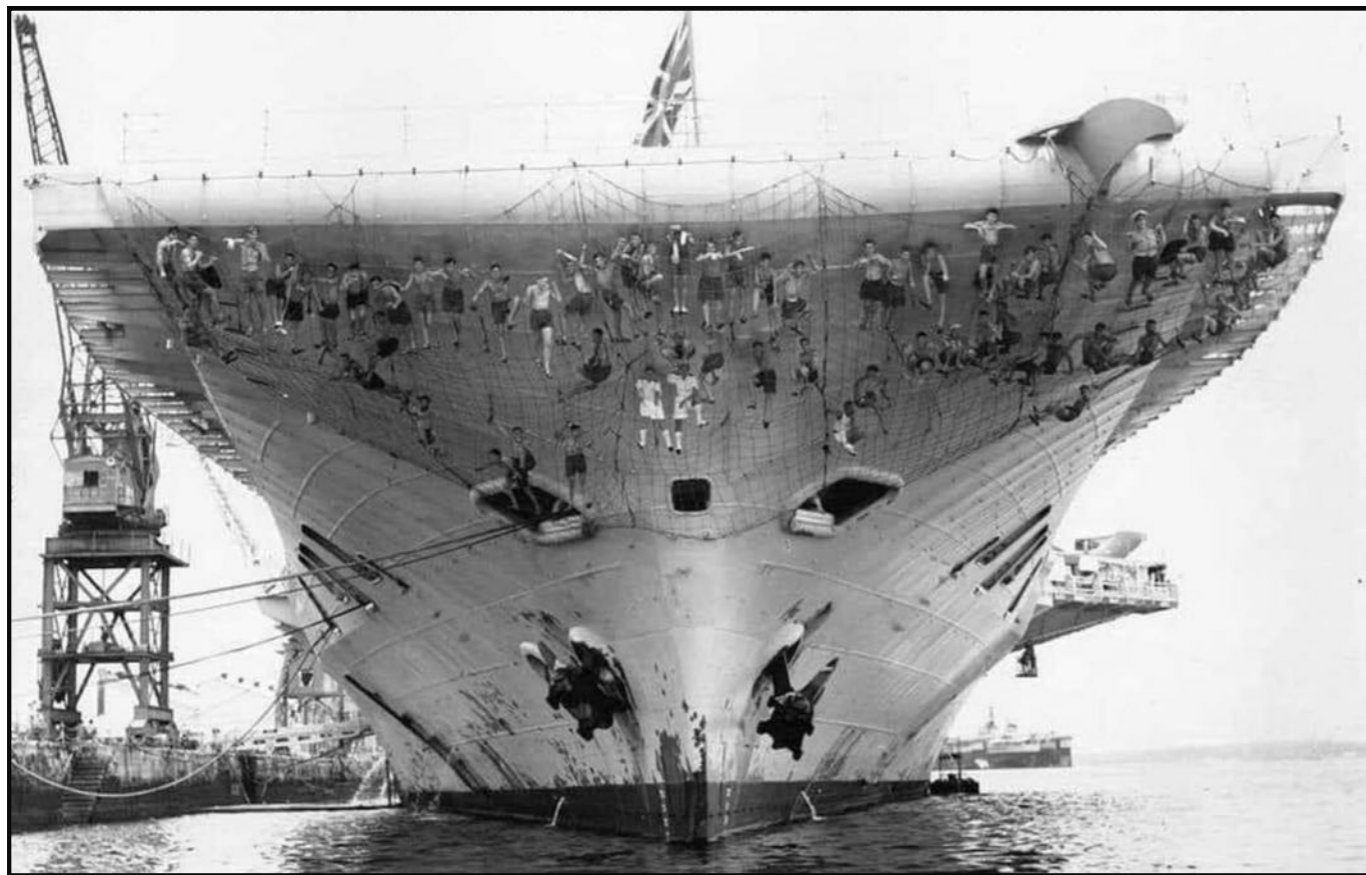
Click  **RUOK?**

LAST MONTH'S CAPTION COMPETITION ENTRIES

Marcus Peake: *The Brits first attempt at a Force Element early warning system was underwhelming, to say the least.*

John Brown: *These Pommie sailors will do anything to avoid a wash.*

Michael Payne: *Surfing the Net! The Early Days.* ✈

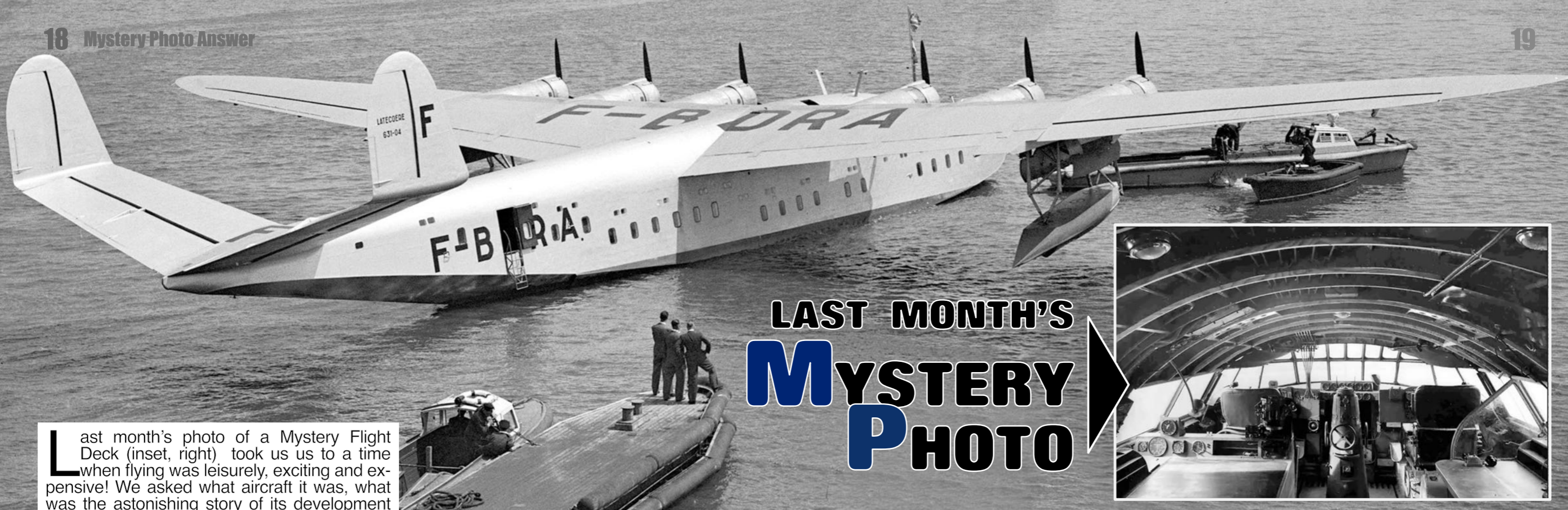


THIS MONTH'S MYSTERY PHOTO



This month's Mystery Photo features a modern looking aircraft with an astonishing secret. Do you know what it is? Send your answer [here](#).

(See next page for answer to last month's photo). ✈



LAST MONTH'S MYSTERY PHOTO



Last month's photo of a Mystery Flight Deck (inset, right) took us to a time when flying was leisurely, exciting and expensive! We asked what aircraft it was, what was the astonishing story of its development and why it was ultimately regarded as a disaster.

The rapid progress in aviation technology brought about by WW1 and the relative wealth of a world freed from global conflict brought about a boom in air travel in the 20s and 30s.

Back then, most of the long range airliners were flying boats, primarily due to the shortage of big runways compared to the ready availability of suitable bodies of water.

And so the world became accustomed to flying boat airliners built by the likes of Dornier, Boeing, Saunders-Roe and Short Brothers. Less well known were the big boats built by the French, which tended to operate out of sight in places like Africa, Martinique and South America.

Arguably the finest of these were the product of the French manufacturer Latécoère, and the last of them was the Model 631. Unfortunately, it suffered a less than stellar safety record and was to bring about an end to the era of flying boat airliners.

Design

The Latécoère 631 originated from a request from the French CAA back in 1936 for an airliner that could carry at least 40 passengers a range of 6,000km (3,728 m).

The company got to work and the result was as above: a graceful, all-metal craft powered

by six Gnome et Rhone 1650 hp radial engines. At 142 ft long and with a wingspan of 188 feet, it grossed at 157,000 lbs. It didn't match the 'Spruce Goose', which had a 300 ft wingspan, but it was still an impressive size.

The aircraft was ordered in 1939, just in time for the war. Despite this, work continued and the prototype first flew in November 1942. Unsurprisingly, it was promptly confiscated by the Germans who took it for flight testing to Lake Constance, a body of water at the foot of the Alps where Austria, Germany and Switzerland meet.

The RAF was having nothing of that so they shot it to pieces with a pair of Mosquitos in April of 1944.

Back in France Latécoère managed to hide the components of an incomplete second aircraft. These were dusted off after the war for assembly, with the first flight in March of 1945.

A total of 10 production models of the big boat were produced, and they were, for a while, the source of considerable national pride as tangible proof that the French aviation industry still existed. These production aircraft carried 46 passengers and were powered by six Wright R-2600 Twin Cyclone engines developing 1600 hp.

It wasn't too long, however, before things went pear-shaped.





Left. A promotional poster of the time showing the main routes serviced by the 631. The hub in France was Biscarosse, a small holiday town in the south-west of the country. It was chosen as Latécoère's manufacturing base as it had a triangle-shaped lake suitable for operations in different wind directions, and was close to the coast. It was possibly the only time in history that a tiny French town had an air route directly to major cities such as Manhattan and London, and to the continents of South America, Africa and Asia.

Below. A 631 based at Biscarosse. The hangar was later to collapse in a heavy snowstorm, crushing one of the remaining aircraft. ✈



The First Accident

Only six months after starting regular service, the first accident occurred on an Air France flight from Rio de Janeiro to Montevideo. The propeller of No 3 engine, closest to the fuselage on the port wing, separated in flight and struck No. 2 engine, almost severing it from the airframe. A second propeller blade entered the hull, slicing a 3 metre hole in the cabin and killing two passengers who were unfortunate enough to be sitting in that position.



A small fire started which was quickly extinguished, and the aircraft made an emergency landing. An investigation concluded that the aluminium propeller hubs were susceptible to failure, and they were replaced with steel units. In the

meantime, one of the starboard engines on the stricken aircraft was relocated to the port wing and the now four-engine aircraft was flown to Montevideo for repairs that took three months.

The Second Accident

Less than three years later, F-BDRD crashed in February of 1948 during a test flight, killing all 19 crew and engineers aboard. The investigation was inconclusive, but there was speculation around pilot spatial disorientation in bad weather (the aircraft lacked proper icing-control and instrumentation for the weather conditions), or low flying in poor weather and possible collision with left over D-day wreckage.

The Third Accident

Tragedy again struck in August of 1948 when F-BDRC was lost over the Atlantic. There were no survivors from the 52 souls aboard. An extensive search eventually located some wreckage that hinted an in-flight breakup, but without confirmed cause.



Above. The last known photo of F-BDRE, which crashed in Cameroon killing everyone aboard. It was engaged in a flight from Lere to Douala carrying eight passengers and eight crew and a load of cotton bales. During transit it encountered thunderstorms and severe turbulence which imposed forces that exceeded its design, and resulted in wing separation. It was the final charter for this aircraft which was then scheduled to return to France for maintenance. It was to be the last 631 in service. ✈

The Fourth Accident

In March of 1950 F-BANU crashed during its second flight of the day, which was a test flight to investigate airframe and engine vibrations - partially to understand the loss of F-BDRC. After adding power the left wing began to flutter, causing the outer section of the port aileron to detach. The aircraft spiralled, inverted, and crashed into the sea killing all 12 people aboard. Subsequent investigation revealed a resonance issue between the engine, gearbox, propeller and wing components which lead to rapid component fatigue.

At that point Air France deemed the aircraft unsafe to operate and sold its remaining assets.

The Fifth Accident

After extensive modifications, a new company employed 631s on cargo operations. Disaster again struck, however, when one of them lost a wing during a fierce thunderstorm over Cameroon, resulting in the deaths of all 16 aboard. The investigation concluded the wing failure was caused by turbulences that exceeded its structural design.

It was the last nail in the coffin of the 631, with all remaining aircraft grounded. Little wonder, as of

the ten production aircraft in service, five had suffered fatal accidents.

Fate was to deal a final blow to the giant flying boat though, when a grounded 631-08 was crushed when the Biscarosse hangar collapsed after a heavy snowfall. All remaining airframes were then scrapped.

Looking back, the aircraft was never really properly engineered - perhaps because of the contingencies of the time it was designed, the interruption that war brought, and the desire to bring it to market at a time when the French needed to demonstrate its aerospace prowess. ✈



HMAS ALBATROSS

and the Procedure Y Project

By Kim Dunstan

HMAS *Albatross* (1) was built as a seaplane carrier at Cockatoo Island Dockyard to a British design between 1926 and 1928 and was commissioned into the Royal Australian Navy (RAN) on 23 January 1929. She then began scheduled cruises with the fleet, exercising with her embarked RAAF 101 Fleet Cooperation Flight Supermarine Seagull 111 amphibians.

In 1930 a little-known but significant task for the ship was to secretly intercept Japanese wireless telegraphy (W/T) signals. Later *Albatross* became the chief monitoring ship for 'Procedure Y' - the code name for W/T intercepts - and continued its involvement while in service with the RAN.

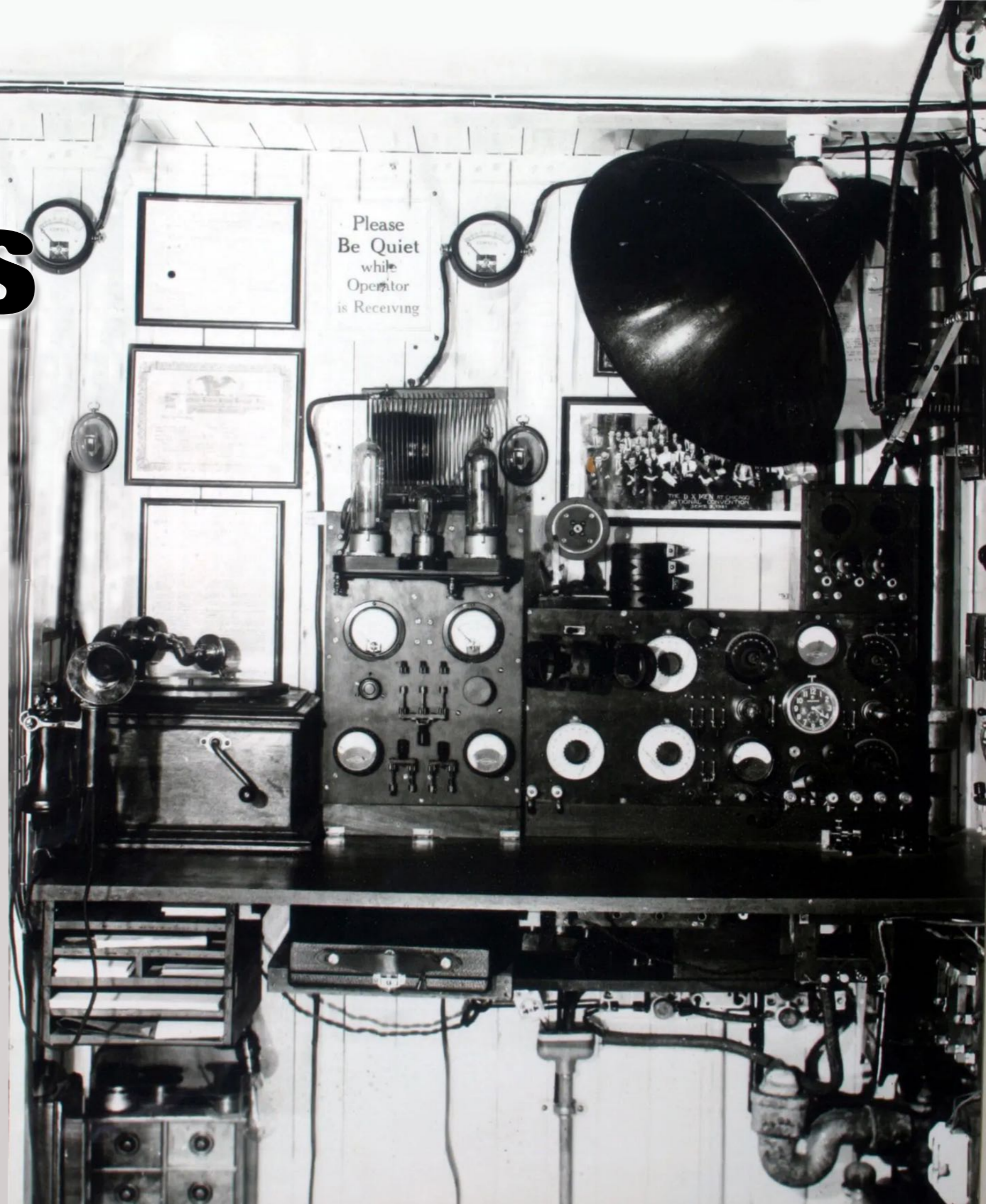
Savage Defence budget cuts during the 'Great Depression' cut short *Albatross's* sea-going career, and in April 1933 she was placed in 'E' class reserve. She was located Sydney Harbour as a seaplane depot vessel for the next five years, but was still involved with 'Procedure Y' until 1939 when she was finally transferred to the Royal Navy as part-payment for the cruiser HMAS *Hobart*.

National Defence Concerns

In 1926 the Naval Board made a serious push to begin 'Procedure Y' activities. This followed Earl Jellicoe's 1919 report on the naval defence of Australia - which highlighted the importance of signal intelligence - and named Japan as a potential threat.

Throughout the 1920s the Australian government had been concerned about Japanese militarism, territorial disputes in China, and the rift between Britain and Japan following the end of the Anglo-Japanese Alliance. After the RN-RAN conference at Penang in March 1921, which broached the subject of war between Britain and Japan, the British Admiralty asked the Naval Board to boost the RAN's signal intelligence - and to focus on intercepting Japanese W/T signals.

When RAN ships began monitoring Japanese radio traffic, the W/T surveillance was conducted mostly during 'down time' - with limited results. A decision was then made to have HMAS *Albatross* conduct monitoring on a full-time basis with a trained 'Procedure Y' crew working in shifts. Because there was a shortage of telegraphists - and it took months to train 'Y' operators - it placed a strain on the plan which took time to resolve.





Above. HMAS Albatross (I) entering Sydney harbour. Note the prolific radio aerials on both the forward and aft masts. **Opposite page:** The Steam Yacht Franklin taken at Jervis Bay. She later became the PNG Administrator's vessel and was employed in early attempts to intercept Japanese radio traffic. Apparently the wind whistling through her rigging interfered with the reception of W/T signals.

The SY Franklin Experiment

Although *Albatross* was (later) assigned the key 'Procedure Y' role, in 1927 a W/T scouting cruise was completed using an intercept crew on SY *Franklin*, the PNG Administrator's steam yacht and a former RAN College tender at Jervis Bay. The vessel reconnoitred around PNG, New Britain and New Ireland, as it was deemed a likely area to intercept signals from the Japanese mandates of Palau, Truk, and Marshall Islands in the Western Pacific.

SY *Franklin's* job was to monitor Japanese W/T stations ashore and afloat, their call signs, wave lengths, frequencies and schedules, operator procedures and methods, spanning naval, military, diplomatic and commercial traffic. *Franklin's* voyage proved fruitful with valuable W/T details gathered during the cruise, including call signs for Japanese warships and submarines. A copy of the Franklin report was forwarded to the Admiralty who expressed appreciation for the work.

Importantly, *Franklin's* trip proved ships could successfully monitor distant signals in the tropics, and so *Albatross* was directed to do further intercepts around the Australian mandated islands.

HMAS Albatross Heads North

In September 1930 *Albatross*, in company with the Flag Ship HMAS *Australia* (II), set course from Sydney for the mandated territories.

Under cover of a routine winter cruise both ships spent time targeting W/T signals originating from the Japanese. The ships' telegraphists used quiet periods to monitor radio signals, noting call signs and frequencies and other details that would add to the jigsaw of information about Japanese activities.

Because *Australia* received a large number of signals from Navy Office there was less 'down time' available for W/T tracking, and fewer results. *Albatross* had less traffic, allowing her more time to engage in Procedure Y and she was able to identify 12 Japanese radio stations, a warship and submarines in the area - in addition to other signal intelligence.

A Naval Office signal of 04 November 1930 highlighting the success of the mandated territories trip said: "It is considered that the amount of information forwarded by HMAS *Albatross* reflects great credit on the officers and ratings concerned."



Information provided by HMAS *Australia* was also good, considering the amount of signal traffic interfering with 'Procedure Y' during the cruise.

Overcoming Obstacles

Budget cuts and a shortage of telegraphists, including staff retention, were problems which delayed building a core of trained 'Procedure Y' operators. Likewise, the shortage of Japanese linguists and cryptographers was an area needing urgent attention. In the early days Lt. Eric Nave, RAN (later captain) was one of the few fluent Japanese speakers, and later made a major contribution towards code breaking their cipher signals.

Although the 1922 Washington Naval Conference imposed restrictions on naval fleets, the daunting size of the Imperial Japanese Navy was a concern. In 1932 the future risk to Australia was made clear when the Japanese navy blockaded and bombed Shanghai with carrier-borne aircraft. Naval Office quickly ordered an increase in Japanese language and 'Procedure Y' training.

As international tensions escalated the demand for reliable intelligence grew. Due to the way High Frequency signals bounce off the ionosphere Australia was in a favourable position to intercept Japanese HF traffic over

long distances - so the Naval Board ordered RAN ships to continue checking Japanese W/T while at anchor or berthed dockside, especially at night when Japanese W/T signals were most active, with Dictaphones used to record signals for later analysis.

The Albatross Legacy

When *Albatross* was finally sold it released skilled 'Y' operators for other ships, a legacy of her pioneering work. Despite the hurdles the RAN had established a small but valuable signals intelligence capability which expanded in later years, playing a vital role during WW11.

The contribution HMAS *Albatross* (I) made towards aviation in the RAN was recognised when the RAN Air Station at Nowra was given the same name. Although her 'Ever Watchful' motto on the original Albatross crest was not adopted until 1952, it is a fitting slogan, as, apart from serving as the RAN's first seaplane carrier it echoed the ship's important W/T eavesdropping role in during 1930s.

References:

National Archives of Australia, MP1049/9
 'The Factory' by John Fahey, Allen & Unwin 2023
 Fears & Phobias problems re Japan 1909-39 by Neville Meaney
 RAN History HMAS Albatross (1)
 Wikipedia. ✈

Light Fleet Carrier

Steve Chaplin argues there's no better time to examine the need for a Carrier than in these times of rapid geopolitical escalation.

RAN's International Partner Relationships

I, along with probably hundreds of thousands of fellow Australians (including serving and retired Naval personnel), welcomed the news that as a replacement for the aging Collins class submarines, Australia is finally going to join the 21st Century and purchase nuclear powered submarines.

Of course, we cannot forget the bruhaha that erupted when the cancellation of the Attack class submarine with France was announced and the verbal free-for-all in Australia's Parliament over this decision, however – I believe it was the smart thing to do and, the formation of the AUKUS alliance was also a very intelligent determination to make.

Where this is leading to is in part, the resumption of the justification for Australia to commission into service with the R.A.N. an up-to-date, next generation fleet carrier. We have all, at one time or another, listened to or read the arguments for and against such a move to re-establish a veritable fixed wing component back into our Fleet Air Arm. Why you say, why is there such a need for purchasing such an expensive piece of kit – so - let us re-examine the positive facets for the requirement then.

Part (and only a small part) of the disputation that was robustly stated, was that, given the vast distances surrounding our country Australia, speed was a necessity for submarines to transit from one part of Australia to another part – thousands of nautical miles and unfortunately, a conventional submarine just doesn't cut the mustard – however, with nuclear powered submarines, they have the capability to transit vast distances, under water with the added benefit of being able to move at great speed and not have to snort to

recharge batteries and get some much needed fresh air into the boat.

So, with that in mind and given the localities of the R.A.N.'s major Fleet Bases, it again creates the argument for the R.A.N. to be able to move into areas of conflict, not only rapidly, but with the equipment in which to provide either a defensive force OR an attacking force in order to provide this requirement.

For the moment though, let us look at a few significant details related to several other allied Navy's major surface combatants in comparison to

Defence Force Australia's (ADF) combatants and the respective size of their countries and populations.

Considerations

Recently, a somewhat lengthy, well presented and itemised media video editorial interconnected with RAAF and RAN operations in and around S.E. Asia stated that the RAAF had the capacity to provide and maintain Combat Air Patrols (CAP) within that region in support of our Naval Task Groups.

Whilst the objective was plausible, the reality is, the air support in an actual combat element, I do

not believe would have the capability to be maintained in a protracted conflict phase – meaning weeks, as opposed to days – the RAAF does not possess long range fighter/attack aircraft.

Currently, the U.S. Navy has only one aircraft carrier based in Japan to cover the Western Pacific region and other than that, there are no other countries with aircraft carriers in which to maintain or support a presence in this region.

To further enhance the newly created AUKUS alliance with the United Kingdom and the United States, it would be, not only strategically, but unassailable reasoning for Australia to integrate a





Australia

Coastline: 59,736 km (37,118 miles)
 Area: 7,686,850 sq. km
 Population: 26,196,358
 As At: 11 November 2022
 Aircraft Carriers: Two Canberra Class LHD
 Names: HMAS Canberra, Adelaide
 Size: 27,500 tons.



United Kingdom

Coastline: 12,429 km (7,723 miles)
 Area: 248,532 sq. km
 Population: 68,700, 880
 As At: 17 Oct 2022
 Aircraft Carriers: Two Queen Elizabeth Class
 Names: HMS Queen Elizabeth, Prince of Wales
 Size: 65,000 tons



Japan

Coastline: 29,751 km (18,486 miles)
 Area: 377, 973 sq. km
 Population: 125,625,190
 As At: 12 November 2022
 Aircraft Carriers: Two Izumo Class(One currently under modification)
 Names: JS Izumo. JS Kaga
 Size: 27,000 tons



Singapore

Coastline: 193 km (120 miles)
 Area: 733 sq. km
 Population: 5,958,758
 As At: 12 November 2022
 Aircraft Carriers: None
 Names: N/A
 Size: N/A

fleet carrier and fixed wing air arm to augment allied Naval platforms in and around not only the Western Pacific region, but also the Eastern Pacific regions as well.

The commentary did make some rather compelling statements:

- Should a task group element become engaged in a surface engagement in and around regions to the North of Australia, the RAAF would be available to provide CAP coverage in the use of their tanker aircraft supporting F-35A fighter aircraft,
- Support would develop from RAAF Base Tindal (Katherine – N.T.) and RAAF Base Darwin with the major tanker units initiated from the East Coast of Australia,
- Tanker aircraft would probably need to loiter in a race-track pattern some 200 to 300nm from the Area of Operations (AOO) and would require at least a minimum of two (2) tankers to carry out in-flight refuelling for aircraft proceeding both into and out of the CAP tasking area,
- A third tanker would need to be ready in reserve on the ground in Darwin to be used when required,
- Insofar as the number of CAP aircraft are involved, it would most likely be in the region of some twelve (12) aircraft and would be tasked such that four (4) aircraft would be involved in CAP duties, four (4) aircraft in transit to the AOO and four (4) aircraft returning from the AOO,

- Basically, that sounds all reasonable, however – there are significant flaws within the proposal, especially when one digs deep down into the roots of the operation :
- We are looking at fighter aircraft operations, around the clock, some thousand/s of miles away from their major support base with very restricted assistance and once having completed their mission, again, there is that significant distance to return for rearming, refuelling etc.
- Should any of these aircraft experience a serious equipment/engine dilemma, again there is a significant distance in which to recover the affected aircraft – more so if there is no allied aircraft base in the region in which the aircraft could recover to,
- A substantial consideration is in the crew rostering/rotation, especially as was pointed out beforehand that in a protracted operation, ostensibly 24hrs per day, how long are the pilots/flight crew able to maintain the exhaustive tempo of commitment – especially should major repairs having to be undertaken with multiple aircraft in being able to support the Task Group requirement – safely,
- With respect to the aircraft start of operation, getting airborne, transit time (TT), in-flight refuelling, engagement/loiter time (ELT), departure time (DT), in-flight refuelling, transit time (TT), landing at operations base (AOO), it could be estimated that the time period from start to finish for each pilot/aircraft could be no less than a 6 x hour sortie. Should the demand/requirement exist for that pilot/air-



Regions to the north of Australia which hold significant interest for peaceful transit of international shipping.

craft to rearm/refuel etc. and return to the AOO, the actuality of pilot fatigue after 12 hours (or more) will rapidly diminish the squadrons operational capability with prolonged combat demands,

- Within the AOO, is there or are there, allied air bases having the capacity and ground crews (with equipment and armament stores) to support the RAAF aircraft and what is their relative distance from the AOO. Very good chance that this would not work, especially if pilots were requiring a rest period in order to maintain 100% fitness and alertness to return to operations after a rest period and a vast distance from home base.

Fleet Carrier

With the above “factors” in mind, let us get down to the nitty gritty as to what (not only me, but in all probability, millions of Australians), believe is an essential requirement to commission into service, a new Fleet Carrier and reinstate the RAN’s fixed wing aviation squadron/s.

The major over-riding argument to actually set this in place, is that looking at the above discussed scenario, with a fleet carrier linked with a surface task group, the “airfield” is actually there, close at hand (probably some 200nm away) as opposed to a few thousand miles. Understandably, with a carrier air group, all support facilities and crew travel with the Task Group and are on hand. More so when considering travel to and from AOO, we’re not talking about long hours, we’re talking about probably less than an hour. This works to a massive operational advantage with the capability to have more aircraft on task, quicker turn arounds and the capacity to engage quicker and with more aircraft in the AOO.

Conceivable Solution

After reviewing a significant number of Light Fleet Carriers, universally, that could and would fit the bill (so to speak), I believe the Japanese Izumo Class helicopter carrier is an ideal platform to select for our requirements in Australia.

The Izumo Class, the largest surface combatant in Japan, was put into service with the Japanese Maritime Self Defence Force (JMSDF) in March 2015. The Izumo Class destroyer ships replace the Hyuga Class destroyers, which were commissioned in March 2008. The class is designated as a “multi-purpose operation destroyer” by the Japanese government due to limits on the Japanese Constitution prohibiting the acquisition of offensive platforms. The vessels can be used for multiple purposes, including anti-submarine war-

fare, command-and-control operations, humanitarian aid and disaster relief operations.

Japan Marine United Corporation (JMUC) custom-built the two Izumo Class ships at the Yokohama shipyard. The construction of Izumo Class destroyer was conceptualised by the Japanese Ministry of Defence (MOD) in November 2009. JMOD received a budget of JPY118.1bn (US\$1.3bn) for the fiscal 2010 for the construction of a helicopter destroyer.

Name	Laid Down	Launched	Commissioned	Status
Izumo (183)	2012	2013	2015	Active - In Service
Kaga (184)	2013	2015	2017	Undergoing Conversion

Construction of the first ship in the class, JS Izumo (DDH-183), began in 2011 at Yokohama shipyard. Its keel was laid down in January 2012 and the vessel was launched in August 2013.

JS Izumo was commissioned at Yokosuka port in Japan in March 2015. Investment on the vessel amounted to approximately JPY120bn (US\$1.01bn). Keel for the second ship in the class was laid down in October 2013, and its commissioning took place in March 2017.

The Izumo Class destroyer features a spacious flight deck that can accommodate five helicopters to take off and land simultaneously. It also includes roll-on and roll-off ramp, and interior space for up to 50 vehicles. For a vessel (such as this) and considering it to fit into the mould as a “light fleet carrier”, by and large, its substantial advantage is that it has a side elevator located on the Starboard side aft of the island superstructure – a huge win-win for this vessel as no other light fleet carrier has this facility incorporated into its design. This detaches flight deck overcrowding enormously during flight deck procedures – total winner!

It is estimated that each Izumo Class carrier could operate 12 or more F-35B JSF aircraft, coupled with approx. 4 x MH-60R helicopters fitted out for either general purpose operations, ASW operations or SAR operations.

On 18 December 2018, the Japanese Cabinet gave approval to modify the Izumo Class into “de facto aircraft carriers”. The modifications will reinforce the decks of the Izumo-class ships to support the additional weight of F-35B JSF, as well as the heat and forces from the jets during vertical landing.

Each vessel will also have the bow section of its flight deck, which is currently trapezoidal, modified



An Izumo class carrier marked for helicopter operations with five spots. In the fixed wing role it is estimated the class could carry up to 12 F-35B Joint Strike Fighters and 4 MH-60R helicopters.

into a square shape to accommodate not only for safer F-35B flight operations, but add additional deck parking for aircraft/equipment.

On 30 December 2019, Japanese Ministry of Defence approved the FY 2020 budget that would finance the refurbishment of the Izumo Class for F-35B Joint Strike Fighter (JSF) operations.

In 2020, JS Izumo began the conversion process. Initial modifications include strengthening the heat resistance of the deck and installing power supply equipment to enable the departure and arrival of the F-35B JSF. A second renovation, to change the bow shape to a quadrangle for the safe operation of the F-35B JSF and the maintenance of the interior compartments, is scheduled to be carried out starting from the end of 2024. The JMSDF has received Government approval to purchase 42 F-35B JSF for JS Izumo and JS Kaga.

JS Kaga began her initial modifications in March 2022 at the Japan Marine United (JMU) shipyard in Kure, Hiroshima Prefecture. The proposed modification of JS Kaga will be more extensive (and significantly more expensive) and includes changes to the shape of the bow.

The initial modification of JS Kaga is expected to take 14 months, followed by a second modifica-

tion of the ship’s interior, which is expected to begin in March 2027.

On 3 October 2021, two (2) USMC F-35B JSF performed the first vertical landings and horizontal take-offs from JS Izumo, marking 75 years since fixed-wing aircraft operated from a Japanese carrier.

Changes and Purposes

To a number of peoples questions as to “why” this particular type of vessel/hull as opposed to returning to an already in operation vessel of the Canberra Class LHD platform, the answer is quite simple for a number of reasons:

- The Izumo Class has a side elevator located to the rear starboard side of the ship, which can remove congestion of aircraft movement to and from the flight deck – this is something sadly omitted from the Canberra Class LHD. Recalling an interview with a Harrier pilot after the Falklands campaign and when asked if there were any things that he would have liked to change in respect to their aircraft operations, he wished that their ships had been fitted with side elevators – for that exact reason – removing congestion in aircraft movement to and

A good airborne image of JS Izumo operating helicopters whilst underway. The two vessels of this class are currently designated as ‘multi-purpose operation destroyers’ as the Japanese constitution prohibits acquisition of offensive platforms, but refits in 2023 and 2024 will upgrade them to allow embarkation of F-35B Joint Strike Fighters. Note the side elevator aft of the superstructure.

from the flight deck. Even so, there is a second elevator located in the centre of the flight deck on the Izumo Class, opposite the bridge,

- As mentioned, the ships have a stimulating turn of speed (30 kts) as a result of some very state-of-the-art gas turbines, allowing a very rapid transit to an area of operations, something the LHD’s do not have,
- The existing Izumo Class vessels are fitted out with an impressive self defence system with a grouping of Phalanx CIWS and the SeaRAM anti-missile CIWS, an absolute plus,
- Should Australia consider the purchase of one (1) of these vessels (initially), the same construction, fit-out procedure as the Canberra Class LHD could be followed, whereby Japan

would build the hull and after launch, placed onto a docking ship and transported to Australia for the remainder of construction. Reflecting the LHD’s were completed in Williamstown, Victoria after being shipped from Spain and the Australian shipyard has the capacity to berth these distinct size vessels, then that would make sense to repeat the operation for the Izumo Class vessels.

As for the vessel’s size/class, it is an ideal “fit” for Australia, being some 27,000 tons, it slides very comfortably into the role as a “light fleet carrier”, coupled with the attraction that changes to the accommodation set up can be rejigged to supplement the aviation crew component from a troop transport to aircraft/helicopter integration, given that the initial Izumo Class vessel was set

up for some 500 troops. Understandably, there would be some transformations to the internal fit-out of the vessel to associate it with RAN requisites, but I do not believe these transformations would be too considerable,

- Acquiring this unique light fleet carrier, would no doubt convey Australia’s commitment with encouragement in trade associations with Japan, but to further bolster friendship affiliations with a very supportive trading partner and that can only be beneficial for both countries. Militarily, in purchasing this particular type of vessel from Japan, it would undoubtedly demonstrate Australia’s commitment in standing shoulder to shoulder in ensuring a solid and diplomatic defence force within the S.E. Asia region,
- Recent political altercations between Australia, the Solomon Islands, Papua New Guinea and China have recognised a worrying concern in terms of having China establishing some form of paramilitary operations/assistance not only to the Solomon Islands, but to Papua New

Guinea. And, coupled with that, there is also the worry of having another country offering significant financial assistance to a number of our Pacific partners, which cannot end well should any of those particular countries default on loan repayments to China.

- Current media statements in Australia made by the Minister of Foreign Affairs (Ms. Penny Wong) on the 9th December, 2022, signify a very supportive and steadfast alliance between our two countries, notably defence co-operation; and, with this obligation, it would be patently obvious for Australia to purchase this type of “light fleet carrier” !

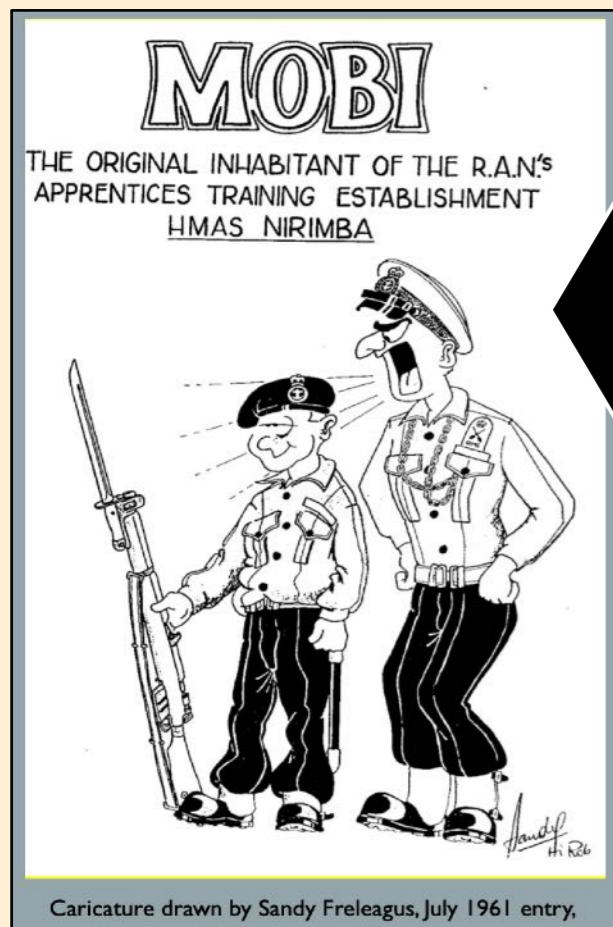
Concluding – not only militarily, but in terms of financial and political common sense, the time is exact for Australia to commit to a significant undertaking and constructive acquisition of a new fleet carrier. This time should not be squandered !

H.M.A.S. Australia deems to be an appropriate name, don’t you think? ✈

Light Fleet Carrier Comparison – Current & Preceding

IZUMO CLASS (DDH) JS IZUMO	CANBERRA CLASS (LHD) HMAS CANBERRA	Specifications	INVINCIBLE CLASS HMS INVINCIBLE	MAJESTIC CLASS HMAS MELBOURNE (II)
US\$1.5 Billion (approx.)	AU\$1.5 Billion (approx.)	Unit Cost	GBP£295 Million (1982)	GBP£8.4 Million (1946)
2015	2014	Commissioned	1980	1955
In Commission	In Commission	Decommissioned	2005	1982
27,000 tons	27,500 tons	Displacement	22,000 tons	20,000 tons
248 M (814 Ft)	230 M (757 Ft)	Length	210 M (689 Ft)	214 M (702 Ft)
38 M (125 Ft)	32 M (105 Ft)	Beam	36 M (118 Ft)	25 M (80 Ft)
7.5 M (25 Ft)	7.08 M (23 Ft)	Draft	8.8 M (29 Ft)	8.0 M (26 Ft)
COGAG – 4 x GE Gas Turbine	CODLAG – 1 GE Gas Turbine 2 x MAN 16V32/40 Diesel Generators	Power/Propulsion	4 x R/R Olympus TM3B Gas Turbine – Twin Shaft	2 x Parsons Single Reduction Geared Turbines – Twin Shaft
112,000 hp (83.97Mw)	25,600 hp (19.1Mw)		97,000 hp (72,000 Kw)	42,000 hp (30,000 Kw)
30 Kts	20 Kts	Speed	28 Kts	24 Kts
6,000 Nm @ 20 Kts	6,000 Nm @ 20 Kts	Range	7,000 Nm @ 18 Kts	12,000 Nm @ 14 Kts
970 (Total)	1,046 Embarked Forces	Capacity	1,051	1,355
500		Troops/Other	384 Aircrew / 59 x Misc.	347 Aircrew
470	293 x RAN / 62 x Army 3 x RAAF	Crew	726	1,008
12 x F-35B JSF - Proposed	8 x Helo. (Standard)	Aircraft	18 x Harrier GR 7/9	8 x A4G Skyhawk
2 x SAR - Proposed	18 x Helo. (Max. Hangar Space)	Helicopters	4 x S61 Sea King ASW Helo.	6 x S2G Grumman Tracker
2 x ASW - Proposed	MH-60R Seahawk			4 x S61 Sea King ASW Helo.
2 x Phalanx CIWS	4 x Rafael Typhoon 25mm Gun	Armament	3 x Goalkeeper CIWS	25 x 40mm Bofors A/A Guns
2 x SeaRAM CIWS	6 x 12.7mm M/G		2 x GAM BO1 20mm Guns	
	3 x Phalanx CIWS (Proposed)		Sea Dart Missile – Later removed	
1 x C/L Fwd.	1 x C/L Fwd.	Elevators/Catapult	1 x C/L Fwd.	1 x Steam Catapult
1 x Side Elevator Aft	1 x C/L Aft.		1 x C/L Aft	1 x C/L Fwd.
	13° Ski Ramp		6.5° Ski Ramp – V/STOL Ops.	1 x C/L Aft.

Around The Traps



Ahoy All MOBIs!

Another piece of nostalgia doing the rounds is a pictorial/narrative of HMAS *Nirimba* from a MOBI's point of view. "MOBI", for those that don't know, means "Most Objectionable Bastards Imaginable", and was the enduring nickname given to apprentices during their second term at *Nirimba*. The name has endured every since then as a badge of identity and honour.

The document, compiled by **Bill Marcroft** (Jul 63 intake) is rich in the history and functions of *Nirimba* and what apprentices went through in terms of life, work and play. It's a really great piece of work which captures the mood of that time, and is recommended reading. You can see it [here](#). ✈

Our Facebook Super-Sleuth **Ron Marsh** sent in this image, courtesy of the Mark Taylor collection, which appeared on the "My Unofficial FAA History Book" page. It shows Firefly Mk IV serial number TW695 which was used as a testbed from Nov 1946.

The Firefly sported a twin screw contra-rotating configuration. She was on charge at Rolls-Royce Hucknall in November of 1946 with the record noted "for general devt, fitted contra-prop), then loaned for the Radlett Airshow in 1947, was at Fleetlands for survey in 1952 and Anthorn in 1953 before being struck off charge in '57. (info via **Graeme Lunn**). ✈



Speaking of *Nirimba*, here's a snippet sent in by **David Prest**, who readily admits to being a proud MOBI. It recounts the day when a nearby house caught fire. David recalls: "I was one of those who also went over the fence with a fire extinguisher. The ship's captain stood there open-mouthed as he watched us go over his 'high security' fence. Funny as. The fence also served as a drop-off point for boot loads of booze during an apprentice inter-service sports weekend. This time the boxes went under the fence in a hole amazingly the correct size to fit a slab of beer." ✈



Below. A new helo type for the RAN? Not so much! A hovering MH60R in front of a USMC Osprey provided the opportunity to move a few pixels to come up with this world-beating design. ✈





It's hard to beat this image by HARS volunteer & photographer **Howard Mitchell** of the Navy Historic Flight Grumman S-2G Tracker 844 flying over the iconic Sea Cliff Bridge north of Wollongong as part of a parade of vintage aircraft to commemorate **Sir Lawrence Hargrave's** world-first heavier-than-air flight 129 years ago at Stanwell Park Beach just ahead. Flown by veteran **Gary Criddle** and young **Alex Le Merton**, 844 manoeuvred close-in behind one of our two operational Vietnam-era Caribous at the top of the run up the Illawarra Coast.

Not as well-known or recognised as he should be, here and overseas, Sir Lawrence was a local scientist, historian and inventor who proved flight with box kites at the beach 50 kms north of HARS on 12 November 1894, a decade before the Wright Brothers took to the air in the US. (Please see the HARS Facebook Page for a video.)

Every year, HARS celebrates that historic event with a Kite Day Fly-past of its own historic aircraft with the TAA-livered DC-3 'Hawdon' leading this year. Sir Lawrence's legacy also lives on with Bald Hill just above the beach now a popular hang-gliding spot and the name of the spectacular coastal highway on down to Wollongong. For years, Lawrence featured on Australia's \$20 note and an upstairs exhibition today at HARS commemorates his pioneering work at the Sir Lawrence Hargrave Centre next to the Australian Aviation Hall of Fame whose patron is **Michael Hough**.

The fly-past was part of a busy Tarmac Weekend at HARS with Remembrance Day just the day before on 11th of November and in which NHF aircraft Tracker 844 and Iroquois UH-1B or Huey 898 also took part. For a great A-V coverage see [here](#). (Words by Carl Robinson. Photo by Howard Mitchell.) ✈



"Can you teach me how to fly? I'd like to take a holiday every year around Christmas."

Danger - FAAAA Scam Emails

Those nefarious folk in Nigeria and other places continue to be busy, and FAAA members and office bearers have recently been directly targeted.



Typically the attempts are emails asking for a transfer to be made.

For example, the President of WA Div recently received an email allegedly from the President of NSW Div asking him to make a transfer of \$1,380.00 to the benefit of Dawne Campbell. It gave bank account details etc.

Needless to say it wasn't from the President of NSW Div, but instead originated from email address "extinvoices@gmail.com".

When it comes to FAAAA transactions, we will never ask any member of the Association to pay a third party.

We will only ask for payment for a genuine and expected transaction: for example, payment of annual subscription fees or a Wall of Service plaque. In these cases the bank accounts will always bear our name, or the address for your cheque payment will be our authorised address as per our website.

We don't publish personal contact information (emails/phone numbers etc), and we don't pass them on to other people. This isn't to say that they don't get out there by other means, however, together with other personal information like your phone number - so be alert to anything that looks unusual.

If you are ever unsure of the veracity of any of our payment requests, or any other FAAAA communication, you can always ask. Simply go to the 'contact FAAAA' button at the foot of every page on our our website. ✈



First Automated Autorotation

If you read next year's Guinness Book of Records you're likely to see an entry under 'rotorcraft' that records the world's first fully automated autorotational landing, recorded on 22 July 2023.

The feat was achieved by Skyryse, which used a highly automated flight control system fitted to a modified Robinson R22 helicopter. The company reports that it expects to roll out its first production example in the first quarter of 2024.

Autorotative landings are perhaps the most difficult manoeuvre in a helicopter as the pilot must fully lower the collective lever within a critical timeband, control rotor rpm during the descent, manoeuvre the aircraft into wind to a suitable landing spot, and then trade the inertia in the rotor system to reduce the high vertical rate of descent for a safe touchdown. All of that happens in a very short space of time and failure to achieve any of those critical actions can result in the loss of the aircraft.

You can watch a video of the event, and its explanation [here](#). (Photo: Skyryse). ✈



Air Taxi Demo in NYC

Joby Aviation was at the forefront of a demonstration in NYC of the role of electrically powered air taxis as part of the city's infrastructure. The 12th November event was attended by the city's Mayor, Eric Adams, together with a large group from the media and other visitors. Surprisingly, it became evident that the great majority of the spectators were not previously aware of the development of eVTOL aircraft, which makes you wonder what they've been reading for the last couple of years.

The city is generally hostile to conventional helicopters due to noise pollution and so the demonstration was a great opportunity to show how quiet the new taxis will be. ✈

Year 1951	AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupil or Passenger	DUTY (Including Results and Remarks)	SINGLE-ENGINE AIRCRAFT		MULTI-ENGINE AIRCRAFT	
	Type	No.				DAY	NIGHT	DAY	NIGHT
						127.30	428.20	9.55	11.10
OCTOBER	5	SEAFURY II	137	SELF	R/P HAN RIVER & A.R.			2.20	
	5	SEAFURY II	101	SELF	C.A.P.			2.15	
	6	SEAFURY II	104	SELF	C.A.P.			2.10	
	10	SEAFURY II	131	SELF	R/P STUNG ON KOTO			2.10	
	11	SEAFURY II	134	SELF	R/P STUNG ON KOTO & A.R.			1.20	
	11	SEAFURY II	138	SELF	R/P ON KOTO, SPOTTING FOR 'BOULDER'			1.50	
	11	SEAFURY II	136	SELF	C.A.P.			1.50	
	17	SEAFURY II	133	SELF	R/P OYANG-NI			2.05	
	17	SEAFURY II	139	SELF	R/P HAN RIVER VALLEES.			1.50	
	19	SEAFURY II	593	SELF	R/P CHINAMPPO - SPOTTING JUNK			2.10	
	19	SEAFURY II	141	SELF	C.A.P.			2.05	
	20	SEAFURY II	102	SELF	R/P HAN RIVER, A.R. (2 ENTRIES)			2.05	
	21	SEAFURY II	593	SELF	CHASE AIR SUPPORT			2.10	
	23	SEAFURY II	593	SELF	JUNK RUN			2.15	
	23	SEAFURY II	107	SELF	RESCUE OFF CHINAMPPO			3.15	
	24	SEAFURY II	593	SELF	STUNG HAN RIVER - BOY CASE SUNDAY			2.15	
	25	SEAFURY II	133	SELF	C.A.S. C.O. HIT.			2.25	
	26	SEAFURY II	133	SELF	R/P HAN RIVER & A.R. KNAPPY DOWN.			2.35	
	26	SEAFURY II	132	SELF	R/P HAN RIVER, SPOTTING FOR 'BOULDER'			1.55	

RAN FAA Korea Veteran Crosses the Bar

If you study this page of Captain Peter Goldrick's logbook carefully, the first entry for the 26th October 1951 reads "R/P Han River & AR. Knappy Down." He refers, of course, to his fellow pilot **Noel Knappstein**, who was at that time the youngest pilot in HMAS Sydney's 21st Carrier Air Group (CAG), and who was shot down on that day over the HAN River region of North Korea.

Noel was a member of a well known South Australian wine family but, far from following in the family business, he joined the Navy in May of 1948. As was the routine then, having completed his initial training at Cerberus he was sent to the UK at the rank of Probationary Pilot for fighter training - in his case on the Hawker Sea Fury. His timing was perfect, as by May of 1951 Australian Prime Minister Robert Menzies had committed HMAS Sydney and her air group to the Korean conflict. Knappstein embarked in her in July of that year.

Sydney's work up was eventful. Both the CAG and the ship were new and untested, and for a period of about ten days Sydney experienced about ten aircraft accidents - although fortunately none of them were fatal. The ship was finally required to return to Jervis Bay when a Sea Fury was pinned 'like a moth' by the barrel of a Bofors on the port waist. The Gunnery officer of HMAS Anzac, the plane guard destroyer, described how the pilot 'went up the wing like a rat up a drainpipe and so onto the flight deck'. It was Noel Knappstein.

The story of Sydney's Korean deployment is best told [here](#). She and her CAG were welded into a superb fighting unit by the efforts of her captain, (**David Harries**), XO (**VAT Smith**), and the air group commander (**Mike Fell**). She flew nearly 2400 sorties in 64 days of operations, for the loss of three lives and 14 aircraft. Knappstein, like everyone else, performed faultlessly - including on the day North Korean flak struck his aircraft, causing him to crash-land on a mud flat on the Han River. His aircraft broke into two but he was unhurt and, whilst waiting for rescue by a seaboat from HMAS Amethyst (made famous for her escape from the Yangtze River three years earlier), he took the opportunity to sell the wreckage to nearby villagers for a wad of cash - netting about one and ninepence for the Royal Purse.

Noel completed his service in 1955 and entered into a career in civil aviation, including with TAA as a check and training captain on F27 and DC9 aircraft. He retired after many years and settled in Sunbury, VIC, where he passed away in his sleep on the 9th of November 2023, at the age of 93. *Left: Noel Knappstein on his 90th Birthday in Sunbury, VIC.* ✈



'FLY NAVY' SPREADS ITS WINGS

At first glance the photo below is unremarkable, but an eagle-eyed reader spotted a little surprise on the tail! Not sure who the culprit was, but good on you! Perhaps there are others out there too - if so, let the Editor know, and we can start a global movement.

In the meantime, we still have some stickers left if you wanted to purchase a few. You can place your order [here](#), and someone will get back to you for the modest payment. ➔



NCIS MEETS THE FAA

The long-running US TV drama "NCIS" has arrived down under with a spin-off series called "NCIS Sydney", now streaming on Paramount+. The first episode features our FAA contributing to some spectacular footage in Sydney harbour. (Navy image). ✈

Dream Liner

Will The Mighty Myra Ever Fly Again?



Building A Dream

In 1988 an aircraft took to the skies which was to become an icon around the world: the massive Antonov 225, nicknamed "Myira", which translates to 'Dream'.

Myira was a record breaker from the minute it made its maiden flight. In addition to being the heaviest aircraft in the world and with the largest wingspan, it boasted the largest internal capacity - about twice that of a Boeing 747. Its lifting ability allowed objects that were previously thought impossible to move by air to be rapidly and efficiently transported - 130-ton generators, wind turbines and diesel locomotives amongst them.

In 1984 the Soviet government asked Antonov to develop a large airlifter to support its space program. Time was short, so the designers started with their existing An-124 airframe, although that model could only carry about half of the specified payload. The engineering team set-to to double that limitation.

The 124 was stretched by adding fuselage sections, a new wing structure was designed to facilitate two additional engines, and a 32-wheel undercarriage assembly added to cope with pavement loading. A completely new tail section was also required to handle the wake turbulence generated by the Buran class orbiters to be carried piggy-back on the upper fuselage.

The work was complete by 1988 and, in December of that year, the An-125 performed its first maiden flight, making its debut at the '89 Paris airshow while carrying a Buran on its back (photo above right). The following year it performed a flying display at the Farnborough airshow to rave reviews.

But by the end of 1991 the Soviet Union had collapsed and the Buran program terminated. With no specific purpose, the sole Myira was mothballed. A second airframe, which had been ordered but never finished, was also set aside.

But Antonov officials were already contemplating using the aircraft for commercial

airlifting, and by the end of that decade it had been refurbished with new engines and modified to better adapt to heavy cargo lift operations.

Myira's first flight in commercial service departed from Germany in January of 2002, carrying 216,000 prepared meals for US military personnel based in the middle east. They were transported on 375 pallets weighing 187 tons.

Other records tumbled. In 2002 Myira carried four main battle tanks weighing nearly 284 tons. In 2009 the heaviest single item was transported to Armenia - a generator for a gas power plant weighing 187 tons. Its heaviest composite cargo clocked in at 241 tons. Altogether, the aircraft broke 240 world records, a feat that has never been matched.

Besides breaking records for cargo capacity, the An-125 hosted the highest art exhibition in the world, when a select audience viewed 500 Ukrainian artworks whilst cruising at 33,000 feet.

By early 2022 the astonishing aircraft had well and truly cemented its niche in the market and was the go-to facility for extreme loads. But all that was about to change.



Above. The An-225 "Myira" carrying a Buran Class orbiter on its back. *Below.* Despite being the world's largest heaviest aircraft at a gross weight of 640 tonnes, the An-225 was remarkably graceful. Only one was ever completed and it was destroyed in 2022, when the Russians invaded Ukraine. ✈



The An-225 Myira, or 'Dream'

End of a Dream

Myira continued to earn her keep during Covid: her last flight was in February 2022 when she delivered nearly 90 tons of test kits from China to Denmark. From there she returned to her base at Hostomel, a city north west of Kyiv (Ukraine), which hosts the Antonov company.

Over the next two weeks Myira underwent an engine change and, on the advice of NATO, was prepared for evacuation as elements of the Russian army were massing on the border to the north.

The evacuation was scheduled for the morning of 24 February 2022 but on that day Russia invaded, with Hostomel airport one of their first strategic objectives as it was only 10km from Kyiv.

The attack was poorly planned and executed. Russian airborne troops landed but were threatened by a Ukrainian counter attack. A further assault occurred the following day by units of the VDV (Russian Airborne Forces) supported by armoured

ground forces moving south from the Belarusian border.

The airfield fell to Russian forces, but fierce fighting occurred over the next few weeks, destroying much on the ground and rendering the airfield unfit for use. It was not until late March that a major Russian withdrawal allowed Ukrainian troops to secure the area.

It is not clear when Myira was destroyed. Evidence suggested it was still intact on 24 February, after the initial assault, but a photograph posted on Twitter three days later reveal an object tentatively identified as the An-225 on fire in its hangar.

A further photograph taken on 01 March identified the tail of the aircraft protruding from the hangar, suggesting it was at least partially intact, but further evidence over the following days revealed the extent of the damage.

In April of 2023, Ukrainian prosecutors charged the former head of Antonov with official negligence for failing to order the aircraft be flown to Germany ahead of the Russian invasion. The charge stated:

“...on the eve of the full-scale invasion, the An-225 was in proper technical condition which allowed it to fly outside of Ukraine. Instead, the general director of the company did not give appropriate instruction regarding the evacuation of Myira abroad. Such criminal actions of the official led to the destruction of the Ukrainian transport plane.”



Dreaming Again

When Myra was destroyed Antonov tweeted: “The Dream will never die.” It was a bold statement considering the extent of damage had not yet been fully comprehended, and that the war with Russia was still waging. But, some 600 days later, it looks as if they have stayed true to their word.

Unsurprisingly, the rebuild will use components from the unfinished second aircraft, married to what can be salvaged from the wreckage of the first.

But it won't come cheap, with an estimated cost of around half a billion US dollars. This would provide a completely new wing section, six new engines and a new avionics fit. The fuselage section of the previously unfinished second aircraft will suffice as the basis for the rebuild.

That cost is probably outside the ability of Antonov for a single airframe, so a partnership with another aerospace company is on the cards. Both Boeing and Airbus would be technically capable, but with the latter's manufacturing centres already positioned in Europe, it would make more sense to choose Airbus. To date, there has been no announcement to that effect.

The choice of powerplants will be an important factor. At least one of the existing Lotarev D-18T turboprops was destroyed in the blast. Even if it could be replaced there are compelling reasons to completely re-engine the rebuilt Myra, perhaps with a more modern and fuel efficient design like Rolls Royce Trents.

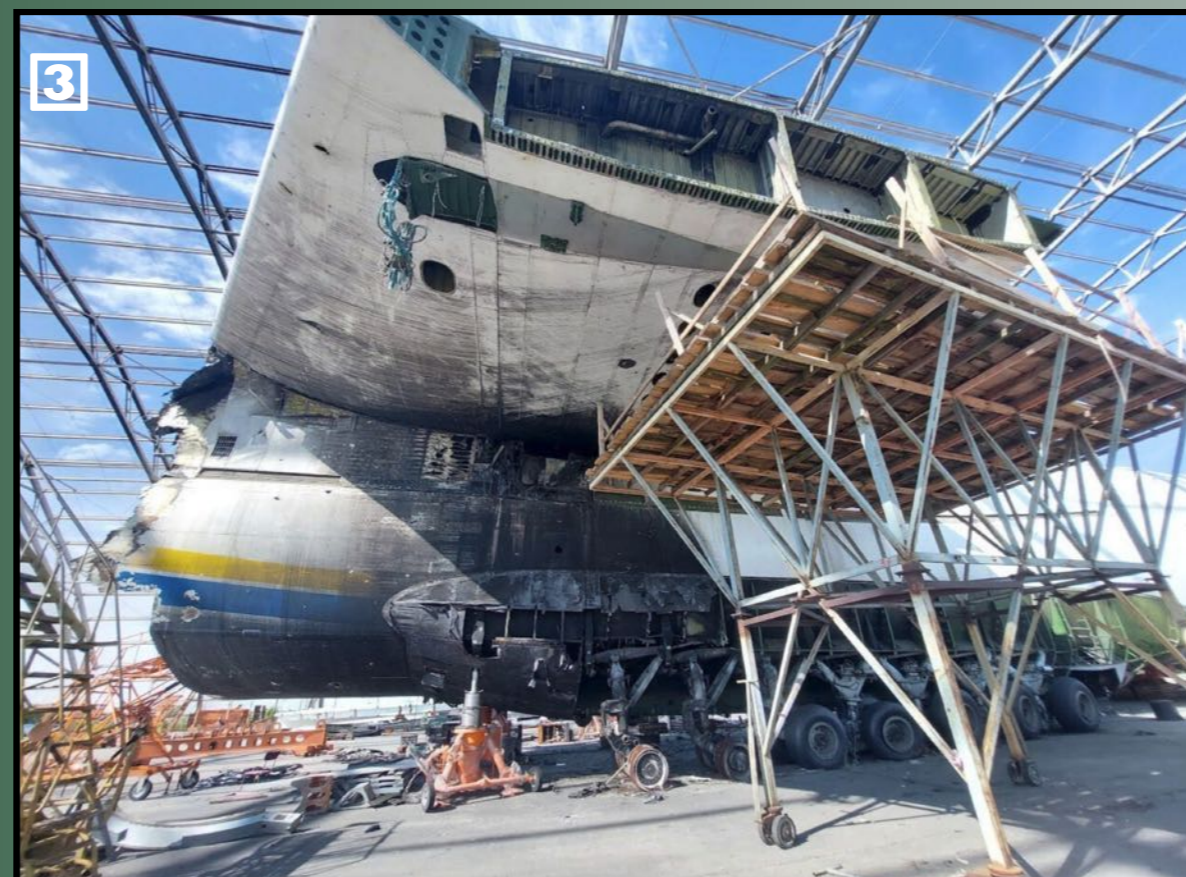
Aside from cost and logistics, there are other big questions, however. Both Ukraine and any potential partner is unlikely to commit whilst the war with Russia continues. And, even when that ends, there are thorny questions regarding funding, profitability, sustainability and viability. The estimated cost of rebuilding Ukraine is around \$400 billion, and much of that work would take priority over the resurrection of a single aircraft.

In the meantime, however, work has started on salvaging what components can be saved from the wrecked hangar in Hostomel, as the photographs on the following pages show. Antonov is hopeful that one day, the Dream will take to the skies again. We will see. ✈

It's impossible to talk about the repair or restoration of this aircraft - we can only talk about the construction of another Myra, using individual components that can be salvaged from the wreckage and combining them with those that were, back in the 1980s, intended for the construction of a second aircraft.

Andrii Sovenko, a former An-225 pilot and aviation author. ✈





Clockwise from top LHS:

[1] Myra in her hangar in Hostomel, north west of Kyiv, in April 2022 - shortly after Ukrainian troops retook the airfield. The former head of Antonov has been charged by prosecutors for criminal neglect in failing to ensure the aircraft was removed to a place of safety.

[2] The second An-225 airframe photographed in 2016 at the Antonov plant in Kyiv. It had been in storage since 1994 when it became apparent that a second aircraft was not a viable proposition. The structure is said to be about 60% complete, with the main structural components still required being engines, tail assembly, outer wings and the nose.

[3 -5] Work on the damaged Myra is progressing, with parts that were destroyed beyond repair being cut away, and salvageable parts supported by scaffolds. These will be surveyed, refurbished and, if useful, married to the second airframe to produce a complete aircraft. ✈

50 FAAAA ANNUAL SUBSCRIPTIONS ARE NOW DUE. PLEASE HELP US BY PAYING PROMPTLY.

Payment varies depending on which Division you are in - please see details below. You can pay by Electronic Fund Transfer (EFT), by direct deposit at your local bank, or by sending a cheque. Sorry we don't do Credit Cards.

If you need any advice or assistance, please contact the webmaster [here](#).

NSW DIVISION

Amount: \$40.00 pa, regardless of Slipstream format.

Account Name: FAAAA

BSB: 637 000

Account: 7168 19 388

Reference: Membership Number or your surname+initial

Cheques: The Treasurer FAAAA NSW Division, PO Box 28, NOWRA 2541. Ensure you put your full name on the back!

VIC DIVISION

Amount: \$45.00 pa regardless of Slipstream format.
(Associate Members - \$10.00)

Account Name: FAAAA

BSB: 083 961

Account: 3108 23 774.

Reference: Membership Number or your surname+initial

Cheques: The Treasurer FAAAA VIC Division, PO Box 2179 RMH Post Office, PARKVILLE 3050. Ensure you put your full name on the back!

ACT DIVISION

Amount: \$36.00 pa if you receive 'hard copy' Slipstream.
\$24.00 pa if you receive Electronic Slipstream.

Account Name: FAAAA

BSB: 032 719

Account: 374 093.

Reference: Membership Number or your surname+initial

Cheques: The President FAAAA Act Division, 41 Noarlunga Crescent, BONYTHON 2905. Ensure you put your full name on the back!

QLD DIVISION

Amount: \$40.00 pa regardless of Slipstream format.

Account Name: FAAAQld

BSB: 034 611

Account: 171 277.

Reference: Membership Number or your surname+initial.

Cheques: The Treasurer FAAA QLD Divn, 6/74 Mattocks Rd., Varsity Lakes, QLD 4227. Ensure you put your full name on the back!

TAS DIVISION

Amount: \$35.00 pa regardless of Slipstream format.

Account Name: FAAAA

BSB: 037 013

Account: 133 119.

Reference: Membership Number or your surname+initial

Cheques: The Treasurer FAAAA TAS Division, 7 Danbury Drive, LEGANA 7277. Ensure you put your full name on the back!

SA DIVISION

Amount: \$49.00 pa if you receive 'hard copy' Slipstream.
\$37.00 pa if you receive Electronic Slipstream.

Account Name: FAAAA

BSB: 065 118

Account: 009 05 668.

Reference: Membership Number or your surname+initial

Cheques: The Treasurer FAAAA SA Division, 6 Somerset Avenue, CUMBERLAND PARK, SA 5041. Ensure you put your full name on the back!

WA DIVISION has declined to publish its payment details. If you have any queries please contact the Secretary, [Jim Bush](#).