

An amazing man !

Robert Hardman

Erick “Winkle” Brown, now 94 years old, makes Biggles look like a wimp. He's flown more planes than anyone else in history and took 2,000 Nazis prisoner single-handed.

Eric (right) who now lives in Copthorne, Sussex, UK, was also the first man to fly a jet on and off an aircraft carrier. He has set aviation records that will almost certainly never be broken and is revered as one of the greatest test pilots of all time.

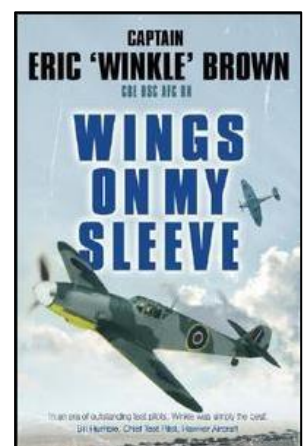
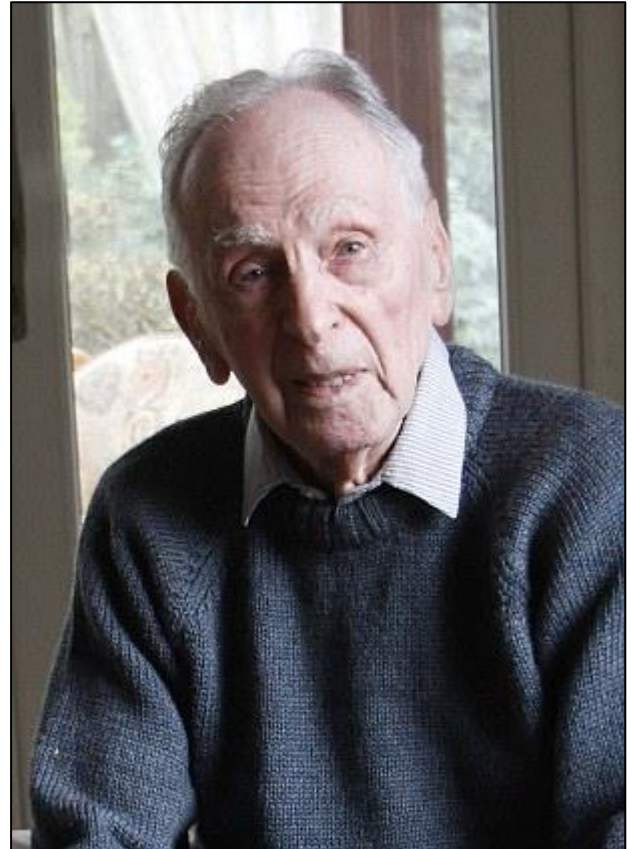
He must certainly rank as the most extraordinary airman alive. Indeed, open his memoirs at any page and you are left asking a single question: how on earth did this modest Scotsman live to tell the tale?

Here is a man who narrowly cheated death in the wreckage of a torpedoed ship, helped to liberate Belsen and took 2,000 enemy prisoners armed only with a pistol. In the immediate aftermath of the war, Eric had to interrogate a bewildering cross-section of leading Nazis, including Hermann Goering, as well as plane manufacturer Ernst Heinkel and designer Willie Messerschmitt.

What's more, he then had to test all their aircraft. And all this before turning 30. Little wonder that when he arrived at Buckingham Palace at the grand old age of 28 for the fourth time, to receive the AFC in addition to the DSC, MBE and OBE he had already received, George VI greeted him with the words: 'Not you again.' In fact, young Brown would soon be back once more to receive the King's Commendation for Brave Conduct. Years later, he would end up as an aide-de-camp to the Queen, who would add a CBE to his collection in 1970.

Pin-sharp at 94, Eric is in constant demand from historians and documentary makers, while his autobiography, *Wings On My Sleeve*, is a must-read for any self-respecting aviator.

Eric's father had served in the Royal Flying Corps during the Great War and, along with all former RFC pilots, received an invitation from the newly formed German Luftwaffe to visit the 1936 Olympics. A promising scholar at Edinburgh's Royal High School, Eric had recently lost his mother, so his father decided to take the boy to Germany to see the Games. Among those hosting the RFC delegation was the charismatic Great War ace Ernst



Udet, who had become a famous stunt pilot. He took Eric up for a spin, ‘Terrifying stuff’, and the teenager was hooked.

‘When we landed, Udet gave me the old fighter pilot’s greeting — “Hals und Beinbruch!” [Break your neck and leg] — and told me to learn to fly.’

Eric went on to Edinburgh University, where he studied German and joined the university’s air squadron. During a student trip to Germany, he wrote to Udet, by then a senior Luftwaffe general, who invited Eric into his social circle. The wide-eyed student was introduced to some of the leading lights of the Luftwaffe — including their formidable test pilot and world gliding champion Hanna Reitsch (below), having no inkling that, within a couple of years, they would be his sworn enemy.



‘Udet was like a schoolboy who regarded the whole world as a friend,’ says Eric. ‘He had these riotous evenings at his flat in Berlin. One of his party tricks was a shooting game where you had to fire a pistol at a target behind you, using a mirror. It made a mess of the wall, but he was very good at it. ‘I often wondered what the neighbours thought, but I suppose you didn’t complain if your neighbour was a Nazi general.’

In 1939, having recently arrived in Germany on a teaching exchange, Eric received a knock on the door one morning. ‘Our countries are at war,’ said an SS officer, before taking away Eric for interrogation. Fearing the worst, he was pleasantly surprised to be dumped at the Swiss border, from where he made his way home as fast as possible to sign up with the RAF.

Like all young pilots at the time, Eric was itching to get airborne and was frustrated by the lack of RAF planes and postings. But, following the loss of the aircraft carrier, HMS Courageous in the opening weeks of the war, along with the loss of more than 500 men, there were plenty of vacancies for pilots in the Royal Navy.



A Hurricane IIB

He was transferred to the Fleet Air Arm, where he was nicknamed 'Winkle' and retrained as a naval pilot. Before long he was on HMS Audacity, an aircraft carrier escorting vital convoys between Britain and Gibraltar.

His bravery in his Martlet fighter soon earned him the Distinguished Service Cross.

Then, in December 1941, his ship was torpedoed and sank 450 miles off Cape Finisterre. He was one of the few survivors after floating in the water for several hours. 'I couldn't walk for a week, but I was lucky,' he said. 'As pilots, we had proper lifejackets.'

Back home, his exceptional flying skills had been spotted and he was transferred to special duties as a test pilot. Among his



tasks was working out ways of flying Spitfires, Hurricanes and Mosquitoes on and off ships, vastly improving the clout of the Fleet Air Arm.

By 1944, Eric had moved to the top secret Aerodynamics Flight based at Farnborough and when he wasn't testing the boffins' latest theories, he was also charged with training a gung-ho band of Canadian Spitfire pilots with whom he saw regular action over France.

Winston Churchill needed a solution to the Nazis' unmanned V1 rocket bombs, which were terrifying the civilian population. One of the first had reduced Eric's home, near Aldershot, to rubble. 'My wife was injured, our cleaning lady lost an eye and the dogs disappeared, so my interest was personal,' he says. Eric helped develop a booster system that could get a fighter alongside a V1 for a short spurt and tip it off-course without colliding. 'You couldn't blow it up because you'd fly straight into the debris but there was a way of nudging its wings using air pressure and not actually touching.'

It led to Eric's first, and last, bail-out. 'One day, the engine caught fire and my feet were starting to fry, so it was time to go over the side,' he says, matter-of-factly. 'I landed in a pond in a field with this very angry bull in it. Every time I tried to get out of the water, it came at me and the ambulance and the Home Guard wouldn't go near it. I shouted at them to get the farmer. I remember him leading it away, saying: "Come on, Ferdinand."'



As the Allies progressed through Italy and France, Eric became commanding officer of a very exotic unit, Farnborough's Enemy Aircraft Flight. His task was to capture and evaluate as much Nazi hardware as he could find. One of the most unappealing was a Messerschmitt 163, (above) a rocket plane that ran on liquid explosive.

Dozens of German pilots had been killed developing the thing, but Eric still chuckles as he recalls his maiden flight: 'I soon worked out that the only way to land it without exploding was to run out of fuel first, so you had to get your timings right.'



In 1945, landing at a newly captured airstrip in Germany, he met Allied troops investigating rumours of a concentration camp at Belsen. Realising that Eric had better German than his interpreter, the brigadier in charge asked him along to assist with translation. Eric has never forgotten the sights he encountered nor the remorselessness of the female commandant he interrogated, Irma Grese (above). 'She was the worst human being I ever encountered,' he says. She was hanged a few days later.

Soon afterwards, Eric flew in to another air base in Denmark, only to discover the Allies had yet to capture it. 'I was in this little Avro Anson and there were still 2,000 enemy troops there,' he says. 'I thought we were for it as we landed, but the commanding officer came up to me, handed me his sword and surrendered on the spot.'

The easiest way to find something lost around the house is to buy a replacement...

Given his excellent knowledge of German and aeroplanes, Eric interrogated all the enemy top brass but he says he did not warm to Willie Messerschmitt. ‘We had a bit of a to-do,’ says Eric, with mischievous understatement. ‘I accused him of compromising the integrity of his planes because the wings on some had started falling off. He bridled at that!’ but he says Dr Ernst Heinkel was a ‘funny little man’ and his erstwhile mentor, Udet, had committed suicide in 1941.



One day Winkle found himself in an interview room with Hanna Reitsch, (right) still an unrepentant Hitler worshipper. ‘She was emotional because she had just heard that her father had shot all the women in the family and then himself to spare them from the Russians. So she told me quite a lot.’ He even interviewed Hermann Goering. ‘His uniform was falling off him, but he perked up when I told him he was going to be interviewed by a pilot. He answered all my questions. ‘The first thing I asked was his opinion on the outcome of the Battle of Britain and he said: “A draw.” He said they had not been defeated, but that Hitler had ordered the withdrawal of fighter units to concentrate on Russia.’

After the war, Eric worked with Sir Frank Whittle, the inventor of the jet engine, clocking up numerous life-threatening ‘firsts’ in the field of jet aviation. Among his unappetising tasks was discovering why certain aircraft would crash at certain speeds, and why planes had a habit of disappearing in storms. Among his many records is one for the most aircraft carrier landings in history: 2,407. A U.S. naval pilot who tried to beat him got as far as 1,600 before suffering a nervous breakdown.

It is also highly unlikely that anyone will surpass Eric’s world record for flying 487 different types of aeroplane.

A proud grandfather and great-grandfather, he is typical of his generation in insisting that he was ‘only doing the job’. But Eric Brown did not merely witness history: he made it, too. And it is a hell of a story.

You can see an interview with Eric [HERE](#)

A Public Servant fell down the stairs at home and went to the doctor. The doctor examined him and said, Mr Smith, I have some bad news and some good news, unfortunately you won’t be able to work again. Ok, said Mr Smith, what’s the bad news??

Why does the colour red fade.

It is important to understand that white light is made up of three primary colours – red, which has the longest wavelength, green, middle wavelength and blue which has the shortest wavelength of the radiation spectrum which is visible to our eyes. Our eyes have three colour sensors, which separate these parts of the visible spectrum, and we get all of our colour

sensations by various mixtures of sensing in these three areas. One of the most surprising results is that we see yellow when only our green and red sensors are stimulated. This means that yellow is the sensation we see when blue is absent from what would otherwise be white light. Similarly we sense cyan (a turquoise colour) when red is absent – i.e. only our green and blue sensors are stimulated, and magenta (a purplish hue) when green is absent – i.e. only our red and blue sensors are stimulated.

Red, blue and green are called the “additive” primaries – simply because they add up to white light. Cyan, magenta and yellow (the “opposites” of red, green and blue) are called the subtractive primaries because each subtracts one of the additive primaries from white light. In printing and in photography cyan, magenta and yellow dyes are most commonly used to form the image colours. This is better than using red, green and blue dyes because cyan, magenta and yellow only absorb one third of white light, whereas red, green and blue dyes each absorb two thirds. This makes twice as much use of light when viewing images.

If you imagine a red image in a sign, the red colour is formed by a mixture of yellow and magenta dyes. The white light falls onto the mixture and the yellow dye absorbs all the blue light. Similarly the magenta absorbs all the green light, and so the remaining light, red, is the only light reflected back to your eye. If you see the red fading – i.e. your eye is seeing other colours coming back reflected from the image area that is supposed to be red this is because the yellow or the magenta or both are themselves fading and failing to fully absorb the blue and green light.

Now it is usually the case in photography that the magenta and yellow dyes in colour prints fade faster than the cyan. You may have noticed that photographs faded in shop windows go cyan in colour – this is why. Remember cyan is the opposite of red – so the red is fading fastest. This is because the yellow and magenta dyes are more susceptible to oxidative fade induced when light reacts within the dye layer to produce oxygen radicals which tend to react with the dye and bleach it – destroy the part of the molecule which absorbs the light to give the dye its colour. Cyan dyes tend to bleach by a reductive process and are actually less stable in dark, hot conditions than are yellow and magenta.

BUT – this all depends on the particular dyes used, and also on how they are contained in the substrate, and on what protection from UV light may be coated on top. Another factor is the incorporation of “stabilisers” – things that preferentially react with oxygen radicals to prevent dye bleaching.

If you can smile when things go wrong, you've already got someone in mind to blame.

Boeing delivers 601 jetliners in 2012.

US aerospace giant Boeing says it delivered 601 commercial aircraft in 2012, substantially more than the previous year, and it booked the second-highest number of orders in company history.



It delivered 477 aircraft in 2011, which in itself is not too bad, being just over 9 per week, but in 2012 it produced 11.5 aircraft per week and you can just imagine the size of the buildings in which all this takes place.

The company also accepted 1203 new orders in 2012 and at the end of the year, there were a total of 4373 unfilled orders on the books.

Boeing’s 737 program of single-aisle planes, the aviation industry’s best-selling commercial plane, set a new record for net orders in a single year: 1,124. Driving the increase were 914 orders for the new 737 MAX, equipped with a fuel-efficient engine and expected to make its first flight in 2016.

The Next-Generation 737 set a new annual record with 415 deliveries in 2012, which seems certain to make Boeing the world’s top plane maker this year.

Airbus delivered 516 aircraft in 2012 and accepted orders for a further 646.

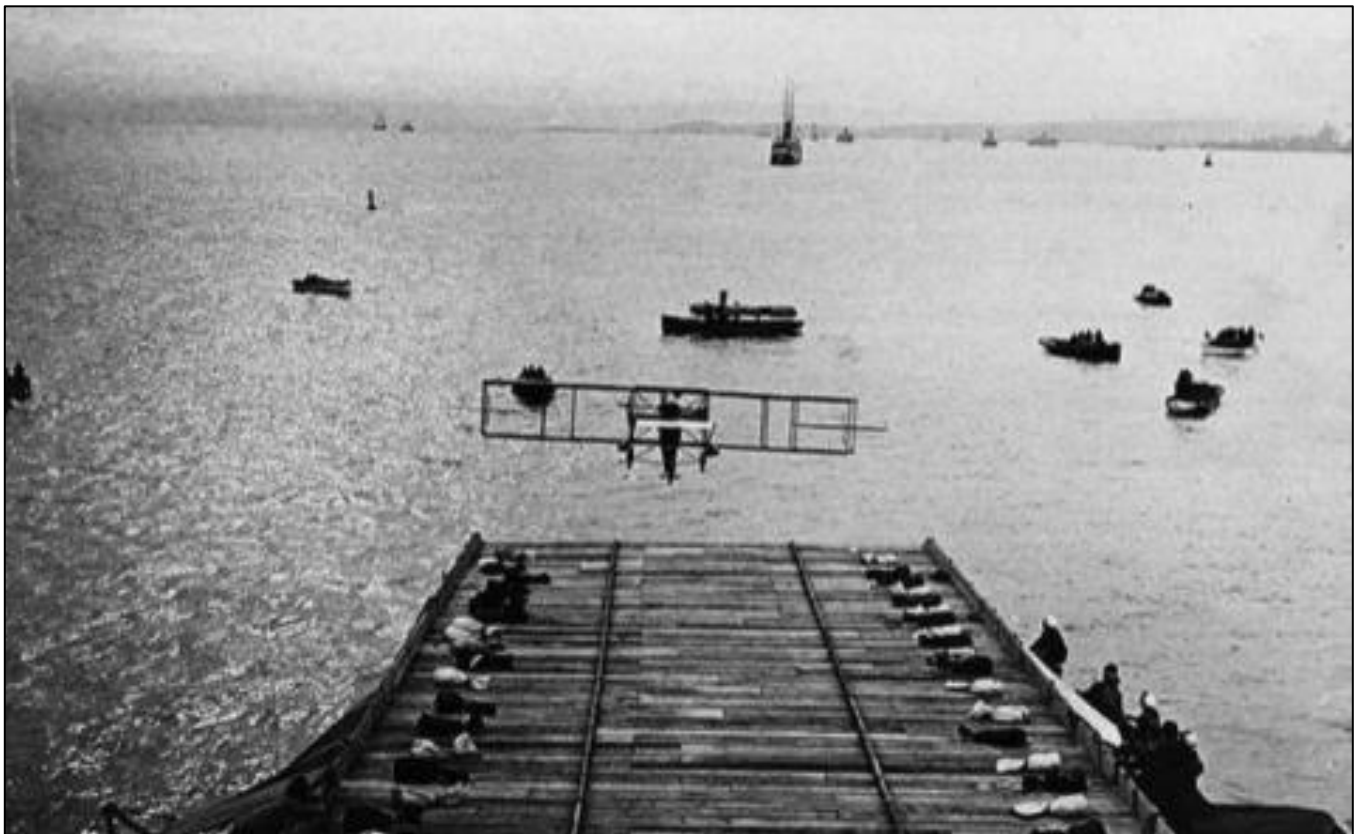
ADF Rank Equivalents

	Navy	Army	RAAF
Flag/General/Air Offices	Admiral of the Fleet	Field Marshal	Marshall of the RAAF
	Admiral	General	Air Chief Marshall
	Vice Admiral	Lieutenant General	Air Marshall
	Rear Admiral	Major General	Air Vice Marshall
	Commodore		Air Commodore
Senior Officers		Brigadier	
	Captain	Colonel	Group Captain
	Commander	Lieutenant Colonel	Wing Commander
	Lieutenant Commander	Major	Squadron Leader
Junior Officers	Lieutenant	Captain	Flight Lieutenant
	Sub Lieutenant	Lieutenant	Flying Officer
	Acting Sub Lieutenant	Second Lieutenant	Pilot Officer
Warrant Officer	Warrant Officer	Warrant Officer Class	Warrant Officer

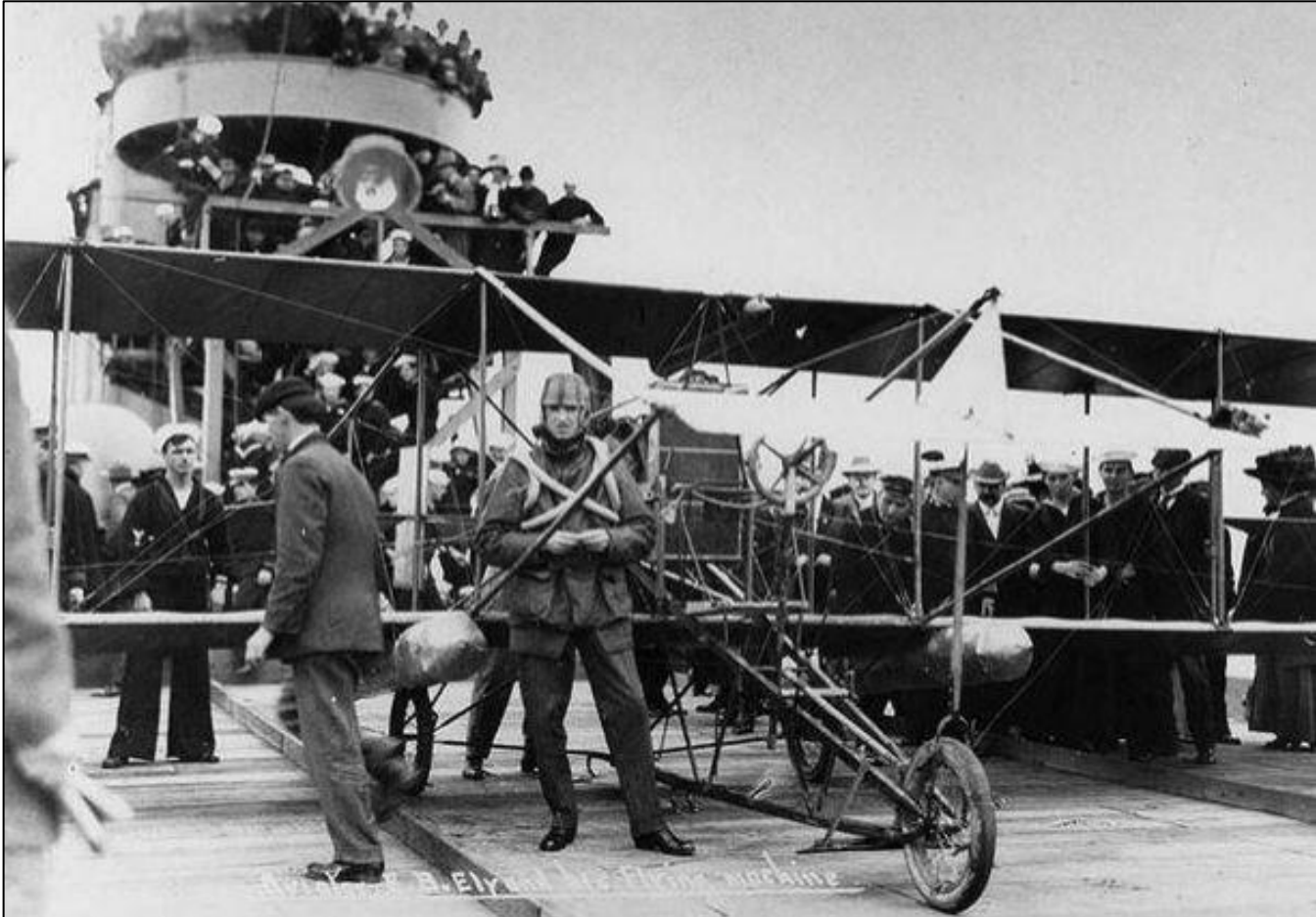
Rank		1 Warrant Officer Class 2	
Senior Commissioned Officers	Chief Petty Officer		Flight Sergeant
	Petty Officer	Staff Sergeant Sergeant	Sergeant
Junior Commissioned Officers	Leading Seaman	Corporal/Bombardier	Corporal
	Able Seaman	Lance Corporal/Bombardier Private Proficient	Leading Aircraftman/woman
	Seaman	Private	Aircraftman/woman

The day the navy learned to fly off ships

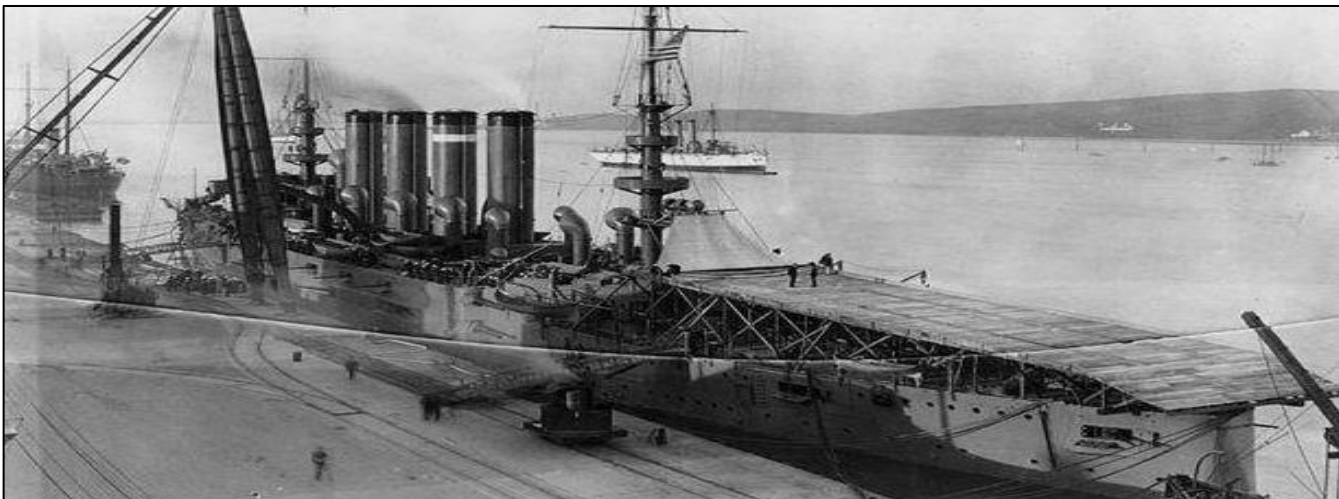
One hundred years is a very long time, yet in the hierarchy of modern marvels, the ability to recover and launch aircraft from the deck of a moving ship stands out as one of the US Navy's signature accomplishments. Which just goes to show you: Some tricks never grow old.



Naval aviation was invented one hundred years ago, on January 18, 1911, when a 24 year-old barnstormer pilot named Eugene B. Ely completed the world's first successful landing on a ship. It happened in San Francisco Bay, aboard the cruiser USS Pennsylvania, which had a temporary 133-foot wooden landing strip built above her afterdeck and gun turret as part of the experiment.



USS Pennsylvania at Mare Island navy yard fitted with a temporary landing deck.

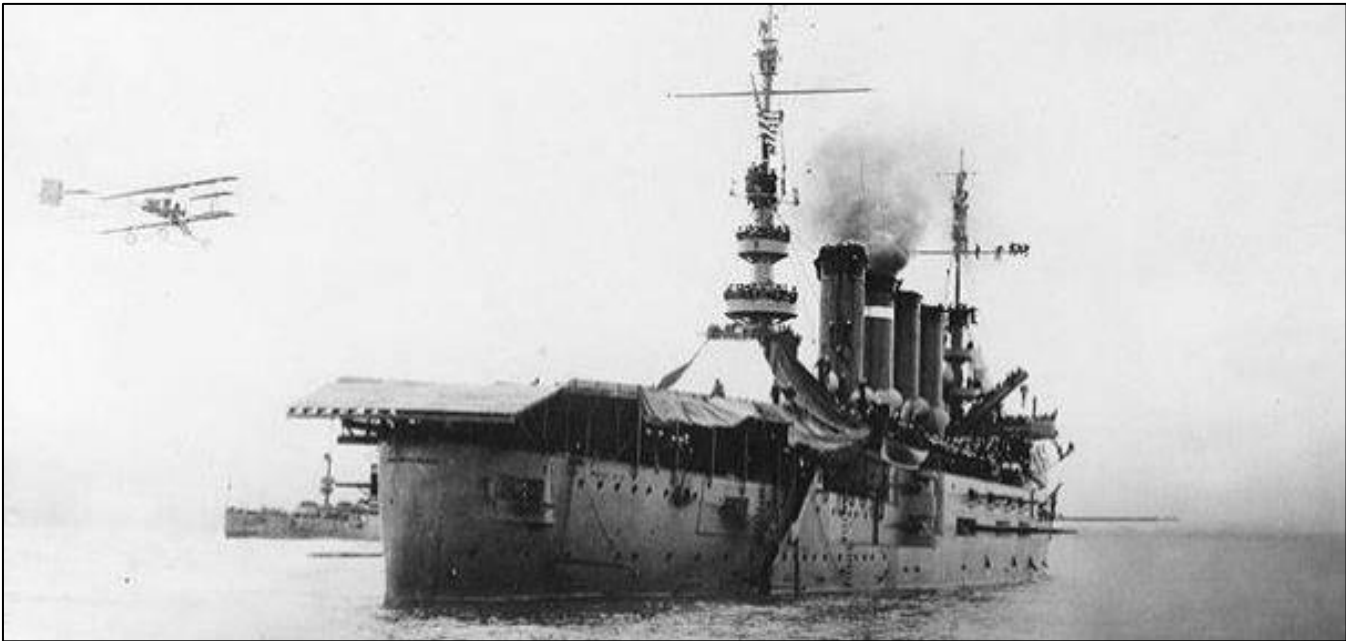




Ely accomplished his feat just eight years after the Wright Brothers made their first flight at Kitty Hawk. His aircraft was rudimentary: a Curtiss Model D "Pusher" biplane, equipped with a 60 hp V-8 engine that gave the aircraft a 50 mph airspeed. To get a sense of how simple it was, below is a contemporary replica of Ely's 1911 Curtiss Pusher that was built to celebrate this 100th anniversary.



But back then, innovation was afoot. Ely's Curtiss Pusher had been fitted with a clever new invention called a tail hook. The idea was to quickly halt the aircraft after landing by using the tail hook to catch one or two of 22 rope lines. Each propped up a foot above the deck and weighted by 50-pound sandbags tied to each end. The lines were strung three feet apart along the Pennsylvania's temporary flight deck. Mark J. Denger of the California Centre for Military History has written a tidy biography of Eugene Ely which narrates the historic day: On the morning of 18th January, 1911, Eugene Ely, in a Curtiss pusher biplane specially equipped with arresting hooks on its axle, took off from Selfridge Field (Tanforan Racetrack, in San Bruno, Calif.) and headed for the San Francisco Bay. After about 10 minutes flying North toward Goat Island (now Yerba Buena), Eugene spotted his target through the grey haze – the USS Pennsylvania.



Ely's plane was first sighted half a mile from the Pennsylvania's bridge at an altitude of 1,500 feet, cruising at a speed of approximately 60 mph. He circled the several vessels of the Pacific Fleet at anchor in San Francisco Bay. The aeroplane dipped to 400 feet as it passed directly over the MARYLAND and, still dropping, flew over the WEST VIRGINIA's bow at a height of only 100 feet. With a crosswind of almost 15 knots, he flew past the cruiser and then banked some 500 yards from the PENNSYLVANIA's starboard quarter to set up his landing approach. Ely now headed straight for the ship, cutting his engine when he was only 75 feet from the fantail, and allowed the aircraft to glide onto the landing deck. At a speed of 40 mph, Ely landed on the centre line of the Pennsylvania's deck at 11.01am.

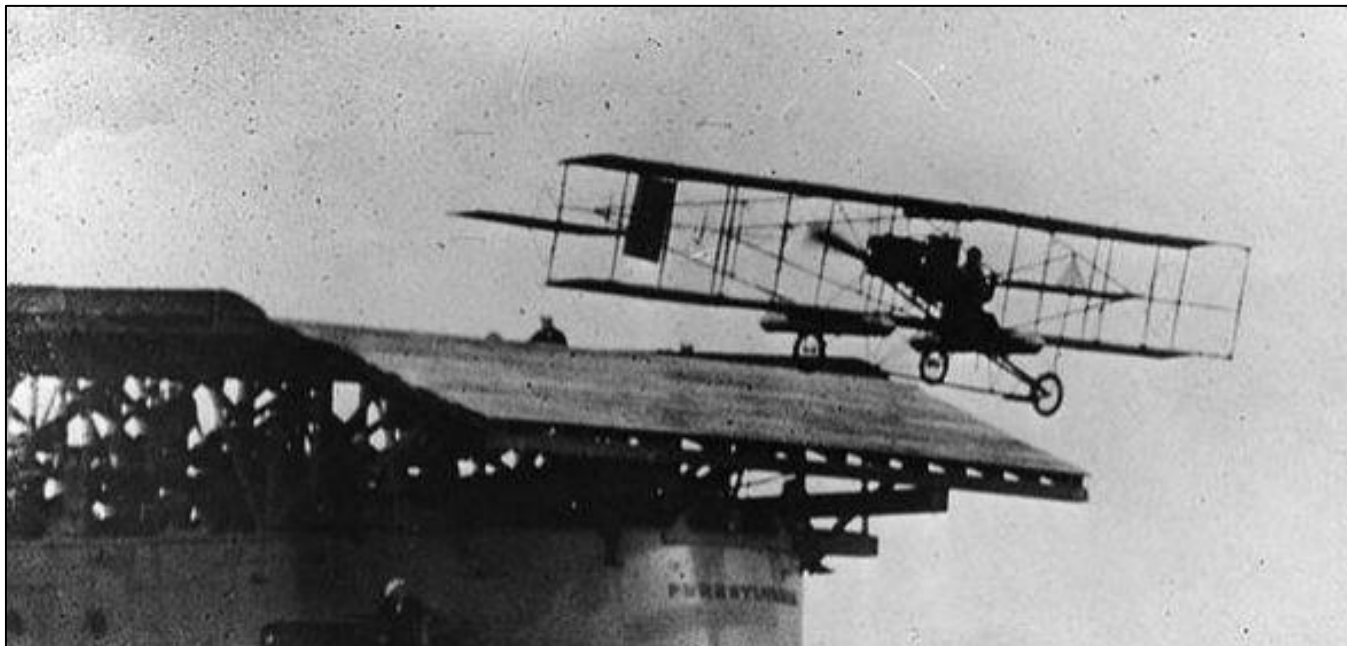
The forward momentum of his plane was quickly retarded by the ropes stretched across the landing area. As the plane landed, the hooks on the undercarriage caught the ropes exactly as planned, which brought the plane to a complete stop. Once on board the PENNSYLVANIA, sheer pandemonium broke loose as Ely was greeted with a bombardment of cheers, boat horns and whistles, both aboard the PENNSYLVANIA and from the surrounding vessels.



Ely was immediately greeted by his wife, Mabel, who greeted him with an enthusiastic "I knew you could do it," and then by Captain Pond, Commanding Officer of the PENNSYLVANIA. Then it was time for interviews and a few photographs for the reporters. Everything had gone exactly as planned. Pond called it "the most important landing of a bird since the dove flew back to Noah's ark." Pond would later report, "Nothing damaged, and not a bolt or brace startled, and Ely the coolest man on board."



After completing several interviews, Ely was escorted to the Captain's cabin where he and his wife were the honoured guests at an officers' lunch. While they dined, the landing platform was cleared and the plane turned around in preparation for take-off. Then the Ely's, Pond and the others posed for photographs. 57 minutes later, he made a perfect take-off from the platform, returning to Selfridge Field at the Tanforan racetrack where another tremendous ovation awaited him.



Both the landing and take off were witnessed by several distinguished members of both U.S. Army and Navy, as well as state military officials. Ely had successfully demonstrated the possibility of the aircraft carrier and as a result the US Navy's first aircraft carrier, the USS Langley, was commissioned in 1922, just eleven years later. But Ely didn't live to witness the milestone; he died just a few months after his historic flight, on October 11, 1911, when he was thrown from his aircraft during a crash at an air show.

But 100 years ago, he merged the power of naval warships and aviation in ways that remain cutting-edge, even today.

"As you can see," the medical instructor says,
"The patient limps because his left fibula and tibia are radically arched.
Michael", said the Instructor, "what would you do in a case like this?"
"Well," ponders the student, "I suppose I'd limp too."