

*Missions for America
Semper vigilans!
Semper volans!*



Publication of the Thames River Composite Squadron
Connecticut Wing, Civil Air Patrol
300 Tower Rd., Groton, CT.

Issue 18.03

17 June, 2024

Lt Col Stephen Rocketto Editor
1st Lt David Pineau, Publisher
Maj Roy Bourque, Paparazzo
2d Lt Joanne Richards, PAO
Capt Edward Miller, Features
Maj Scott Farley, Roving Correspondent
Shawn Terry, Automated Sciences, IT Guru

QUICK QUIZ

What do all of these U.S. Army Air Force, U.S. Army, and U.S. Air Force aircraft have in common?



Consolidated A-10

Douglas A-24 Banshee



Douglas Skyraider

Lockheed RB-69A



*Ling-Temco-Vought A-7
Corsair II*

McDonnell F-4 Phantom II



WHERE ARE THEY NOW

Maj Erik Nelson, USAF Update

Erik has just informed *The Coastwatcher* that he has been selected for promotion to lieutenant colonel.

Captain John deAndrade, Delta Airlines

Former Squadron Commander John deAndrade and his wife Nicole are both based in New York. John is now flying the Boeing 757 and 767 on domestic and international routes and Nikki is a flight attendant.

*John and
Nikki*



An Aside



Credit: (U.S. Air Force photo by Paul Shirk)

While in the USAF, John flew the North American Rockwell, B-1B. One of the aircraft he flew, named *Lancelot*, 85-0081, has been retrieved from retirement at the 309th Aerospace Maintenance and Regeneration Group, Arizona, and flown to Tinker AFB in Oklahoma for upgrading. *Lancelot* will replace a B-1B that was so damaged by an engine fire that repairs are cost prohibitive. This must be done to keep the B-1B fleet at its congressionally mandated inventory of 45 aircraft.

Lt Brendan Flynn, USCG

Former TRCS Cadet Brendan Flynn married María Gracia Pantigoso Lira in February. They are expecting a child in November.



Brendan has spent the last three years. These past three years working at the Coast Guard's Intelligence Coordination Center in Washington as an analyst. He has been reassigned to Wilmington, N.C. Where he will serve at Sector North Carolina command center supporting coastal USCG operations.

Brendan has also continued his musical avocation continuing to compose music and play piano.



*Flynn, in concert
at Connecticut
College while a
cadet at the
Coast Guard
Academy.*

AIAA WINNING ESSAY

The CTWG is proud to announce that C/CMSgt Abel Francis Agil of the Royal Charter Composite Squadron had won the \$200 prize for the best 8th grade level essay submitted to the Hartford Section, American Institute of Aeronautics and Astronautics 2024 essay contest. His winning essay follows:

***James Webb Space Telescope – De-Mystifying
the Origins of the Universe***

*by
C/CMSgt Abel F. Agil*

One of the most important space telescopes used in the study of astronomy and cosmology is the James Webb Space Telescope. The new technology of the Webb Telescope allows it to conduct infrared astronomy, meaning that the telescope can view objects that are too old, too far away, or are too faint for other space telescopes to see. Webb's most important aspect is its Integrated Science Instrument Module, which is the powerhouse of Webb and supplies Webb with the powerful tools that it currently has. The

instruments aboard the Webb are the NIRCam, the NIRSpec, MIRI, and FGS/NIRISS. The James Webb Space Telescope was launched on Christmas of 2021 and arrived at its destination in January of 2022 in a solar orbit approximately 1.5 million kilometers away from Earth, and since then, the Webb Telescope has made significant contributions to the field of astronomy with its groundbreaking findings that are still invaluable till this day.

The Integrated Science Instrument Module (ISIM) is the framework for the Webb Telescope that supplies electrical power, structural stability, and much more to the telescope. The ISIM holds Webb's four scientific instruments, NIRCam (Near Infrared Camera) which is a camera used to provide information to align the 18-section mirrors, NIRSpec (Near Infrared Spectrograph) which is a spectrograph that can measure the near-infrared spectrum of up to 100 celestial objects like stars and galaxies simultaneously, MIRI (Mid-Infrared Instrument) which is a camera and spectrograph that is able to observe mid to long infrared radiation, and FGS/NIRISS (Fine Guidance Sensor and Near Infrared Imager and Slitless Spectrograph) which, as the name implies, is a combination of a Fine Guidance Sensor and a near-infrared imager and spectrograph.

Each instrument plays an important part in identifying redshift in the universe and being able to observe stars, planets, and galaxies that are light-years away from us. Each infrared instrument has longer wavelength coverage and more sensitivity than the Hubble and other space telescopes, which allows for more stars and planets that are very faint to be in the field of view of the Webb. The definition of redshift is light shifting into redder wavelengths, eventually leading into infrared. This is the biggest key concept for how Webb's instruments are designed to work because as space expands, celestial objects move farther away from each other. The farther objects are away from each other, the less visible the objects will be because of infrared waves that develop from the redshift that occurs from this.

This results in objects not being visible to the human eye. So, this means that to study the earliest formations of stars, we need to observe infrared light and use very powerful telescopes and instruments that are specifically optimized for this kind of light. Scientists have thought that the very first star formation happened somewhere between redshift 15 and redshift 30 with the help of Webb. During that time, the universe was very young, only about 100 to 250 million years old. Now you may be thinking that 100 to 250 million years old seems very old, but to show how young this is, the current age of the universe is 13.6 billion years old, so approximately, Webb is able to see stars in the universe when the universe was only about one or two percent of its current age, which shows how well Webb works with its powerful resources.

The technology that the Webb contains is extremely valuable if we want to learn more about our solar system, or galaxy, and our universe as a whole. Some of the main questions that Webb was designed to help with are what the universe's first light looked like or when the first stars formed. With the incredible scientific instruments and telescopes that the Webb has, it can detect stars and planets that are about ten billion times as faint as the stars that are visible without a telescope. To put that into comparison, that is 10 to 100 times fainter than what the Hubble can see. Now, with the discoveries that Webb has made, we have more information about the composition of the first planets and stars that formed and, approximately, when they formed. This data will also help scientists lead to more clear results about the Big Bang Theory, such as what were the first elements and how compositions of celestial objects change as time passes. The Webb, with its famous ISIM framework, should be considered as one of the most powerful and useful space telescopes launched. Without Webb, scientists and mankind would never have been able to discover and learn so much about our solar system, galaxy, our universe, and we would have been limited with Hubble's limited field of vision and limited infrared detection and some of the other telescopes that NASA has.

CURRENT, MORE OR LESS, EVENTS

A Busy Week for Space Activities

Gone West



Maj Gen William Anders, USAFR, went west on 7 June, 2024 at the age of 90 when the Beech T-34 Mentor which he was flying crashed into the waters of Puget Sound. General Anders is best known as the astronaut who took the stunning photograph “Earth Rise” during the Apollo 8 mission.



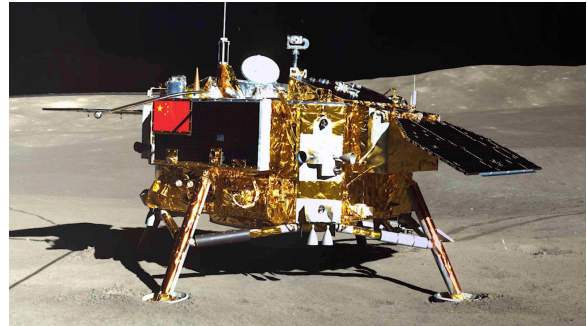
“We came all this way to explore the Moon, and the most important thing is that we discovered the Earth.” William Anders

Anders graduated from the U.S. Naval Academy but took his commission in the U.S. Air Force. He also held a Master of Science for the USAF Institute of Technology in nuclear engineering.

In a long career, Anders was an astronaut, a Commissioner of the Atomic Energy Commission, Chairman of the Nuclear Regulatory Commission, and Ambassador to Norway. Highlights of his work in corporate America included executive positions with General Electric, Textron and Chairman and CEO of General Dynamics.

Chinese Sample the Far Side of the Moon

On June 2, the Chinese National Space Administration announced that the *Chang'e-6* landed on the far side of the moon. *Chang'e-6*, named after the Chinese moon goddess is gathering samples of lunar regoliths from a large crater, South Pole-Aitkin Basin.



Once returned for analysis, the materials will be compared to the samples which have been garnered from the near side of the moon. The Chinese lunar sampler lifted off on June 4th and is expected to land in Inner Mongolia on June 25.

Boeing Starliner Mates with ISS

June 5th marked the launch of Boeing's much delayed Starliner on top of a United Launch Alliance Atlas V rocket.



The craft carried two NASA astronauts, Butch Wilmore and Suni Williams, to the International

Space Station. The astronauts arrived on June 6th and are expected to stay for one or two weeks.



Six NASA astronauts and three Russian Cosmonauts now reside within the ISS. Three Chinese “taikonauts” are currently on board the Tiangong Space Station-Shenzhou 18.

However, the helium leak which delayed the launch has reoccured and the return flight's date is open. The mission is designed to certify the Starliner systems for long term orbital flights.

Successful Test of SpaceX Super Heavy

SpaceX launched its mammoth Starship rocket on June 6 on its fourth test flight.



The first stage, known as “Super Heavy” made a successful descent to the Gulf of Mexico. The spacecraft entered a 40 minute orbit and then splashed down in the Indian Ocean. Some damage was noted but SpaceX considered the launch a success.

Space Tourists Fly on Virgin Galactic

On June 8, Virgin Galactic's Unity spaceplane launched from New Mexico's Spaceport America. Unity was carried aloft by Virgin Galactic's

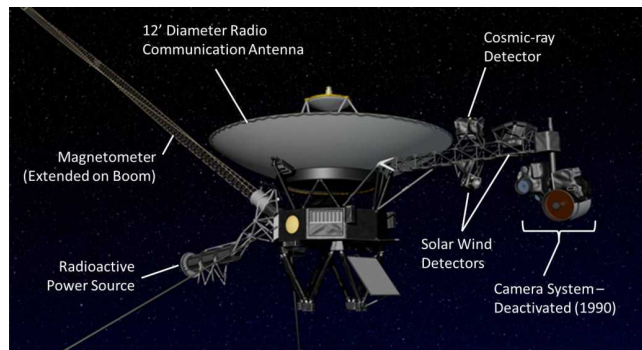
mothership, Eve to an altitude of 44,500 feet and released.



Pilots Nicola Pecile and Jameel Janjua ignited the engines and reached an altitude of 54.4 miles, 4.4 miles above the 50 mile altitude which the U.S. considers the boundary of space. A Turkish research scientist and three paying passengers were also aboard.

Voyager 1 Restored to Operation

Voyager 1 was launched in 1977 and is now cruising in interstellar space, 15 billion miles from earth. It takes a radio signal about 22 hours to travel that far.



Seven months ago, Voyage 1 ceased transmissions but engineers at the Jet Propulsion Laboratory have managed to restore communications and are receiving data from the four instruments which are working, energized by the radioactive decay of Voyager's plutonium power source.

AEROSPACE HISTORY AND CHRONOLOGY

June 12, 1979 – First man-powered flight across the English Channel. Bryon Allen pedals the *Gossamer Albatross* between Folkstone, England and Cap Gris-Nez, France. 22 miles, in 2 hr., 49 min. Paul McCready, the aircraft designer, is awarded the Collier Trophy. The flight also earns the Kremer Prize, £100,000 for the first man-powered flight across the Channel.



*Allen preparing
for departure.*
(Credit: AP)

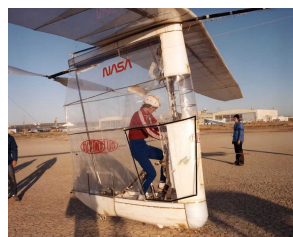
Over the Channel



*Almost there!
Ready to alight in
France.*

The aircraft has a wing span of around 98 feet, about equal to a Douglas DC-9 airliner but weighs only 70 pounds empty! The “fuselage” is framed in carbon fiber and the wing ribs use polystyrene and the skin is mylar. The cyclist must provide around 0.4 HP for flight.

Testing in California
(Credit: Jim Moran)



June 13-16, 1952 – Soviet MiG-15s shoot down a Royal Swedish Air Force C-47 over international waters in the Baltic with the loss of three airmen and five civilian signal intelligence operators from the National Defence Radio Establishment. The Swedes claim that the unarmed transport was on a navigation exercise.



The doomed ELINT aircraft, a Swedish Tp.79 (C-47) at Barkarby, Sweden.

On the 16th, the Soviets shoot down a Swedish Air Force Catalina flying boat which was engaged in the search and rescue mission. The five members of the Catalina were rescued.



*Rafting the Catalina survivors away from the
semi-submerged aircraft.*

Forty years later, the Swedes admit that the C-47 was equipped with British radio interception equipment and been on a NATO mission.

During the Cold War, the skies over the Baltic Sea were witness to continuous and sometimes deadly jousting between NATO aircraft filled with electronic and optical surveillance equipment and the *Voyska protivovozdushnoy oborony* generally referred to in the literature as the PVO. The PVO, literally “Anti-Air Defence of the Nation” was unusual in that it was independent of the Soviet Air Force.

On April 8th, 1950, four POV Lavochkin La-11 Fangs pounced on a U.S. Navy Consolidated PB4Y-2 Privateer bases with VP-26 at Port Lyautey, French Morocco. The Americans claim the aircraft was over international waters. The Soviets claimed it was intercepted over Latvia. It crashed into the sea 3-6 miles off the coast and all 10 crew members were lost.

*VP-26
Privateer*



La-11 Fang

Soviet aircraft attacked a Boeing RB-47H over the Baltic on November 7th, 1958. The Stratofortress escaped without injury to the crew.

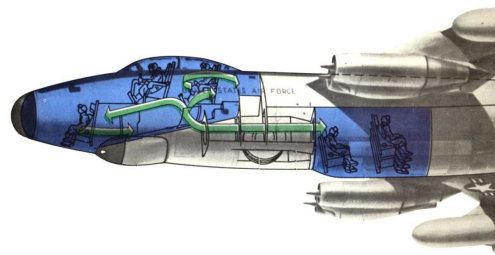
Another RB-47H flown by Major John Drost was intercepted by a MiG-19 Farmer on September 24th, 1962. Drost was a lead pilot in the 55th Strategic Reconnaissance Wing out of Forbes AFB, Kansas. Drost served for 15 years with the 55th and was repeatedly selected for sensitive missions and repeated overseas deployments. Drost retired as a colonel earning seven Distinguished Flying Crosses for his record of "heroism or extraordinary achievement while participating in an aerial flight."



RB-47H (Credit: NMUSAF)

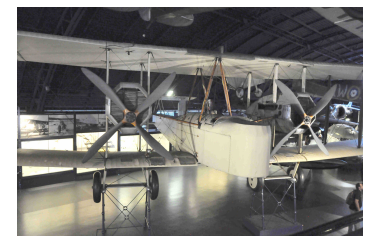
Thirty-five of the RB-47H were produced to fulfill the electronic reconnaissance and countermeasures role. The bomb bay was modified and a pressurized compartment was built which housed three operators, called "crows." They operated the equipment which monitored Soviet radar emissions in an attempt to determine the site locations and the characteristics of the signals.

Their workspace was a cramped, noisy, and extremely crowded environment in which they could not even stand up, the inside height being just four feet. Just getting in and out of the workspace was an ordeal. Arguably, never had Air Force flight personnel worked under such horrid conditions.



Crow's "nest" and restricted ingress and egress routes

June 14, 1919 – Capt John Alcock and Lt Arthur Whitten Brown depart Newfoundland for a 16 hour flight to Ireland, the first successful non-stop crossing of the Atlantic Ocean.



Alcock, Brown and the Vimy

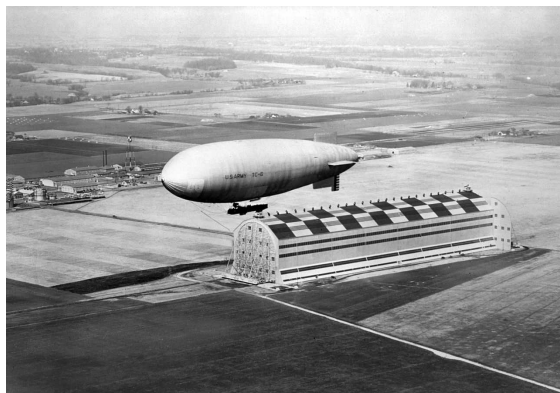
They not only copped the *Daily Mail's* £10,000 prize but are knighted. Their aircraft, a Vickers Vimy, is now on display in the British Science Museum, London

June 15, 1928 - Lts. Karl S. Axtater and Edward H. White, flying in an Air Corps blimp directly over an Illinois Central train, dip down and hand a mailbag to the postal clerk on the train, thus completing the first airplane-to-train transfer.

*Ridin' on the City of New Orleans
 Illinois Central Monday morning rail
 Fifteen cars and fifteen restless riders
 Three conductors, 25 sacks of mail...
 Good morning America, how are you?
 Say, don't you know me? I'm your native son.*

-Steve Goodman-

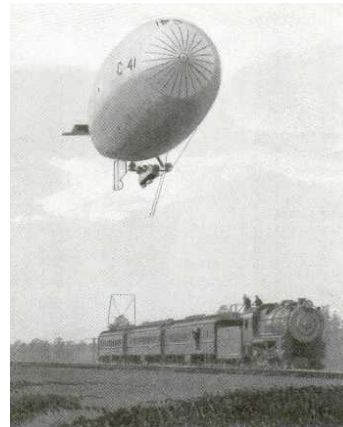
Okay! So the *City of New Orleans* did not start running until 1947, about two decades after the air to rail mail transfer but why waste the opportunity to elevate the class of *The Coastwatcher* reader with a little bit of musical culture, a bittersweet song to a time fading into history.



An Army "TC" Class blimp, their standard lighter-than-air ship over its hangar at Scott Field, Illinois.

The hangar is three blocks long, one block wide, and 15 stories high, the second largest in the world after the Navy's Lakehurst facilities. To sense how big the hangar was and how small the U.S. Army was in 1923, a report stated the the entire Army could have stood in formation inside the building!

In 1930, the Army experimented with picking up mail from a moving train and transferring it to a ship using the the blimp C-41.



The grappling hooks and pick-up rig is clearly visible as the Army airship C-41 approached to make an attempt to snatch the mail bags. (Credit: Popular Mechanics Magazine)

And speaking of trains, on the very same day in 1928, an airplane vs. railroad train race is held between London and Edinburgh. Both contestants depart at 10:00 A.M.

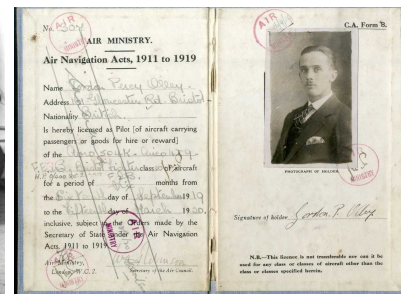


City of Glasgow

The Flying Scotsman



The aircraft is an Armstrong Whitworth A.W.154 Argosy named *City of Glasgow* carrying 18 passengers and piloted by Captain Gordon P. Olley, a WWI ace with 10 victories. Olley is the world's first pilot to log a million miles.



Olley and his License

Official railroad observer is Mr. J. Birkett, a retired London North Eastern Railway (LNER) engineer. Departure point is Croydon Airport.

The train is the LNER *Flying Scotsman* (an interesting name for a railroad train racing and airplane), the fastest express service on the London-Glasgow run and is pulled by a 4-6-2 Pacific-type locomotive. The official airline observers are Capt. G. P. Jones, Imperial Airways pilot, and Air vice Marshal Sir Vyvyan accompanied by a Major Brackley. Departure point is King's Cross Station.

The distance is 390 miles but the range of the Argosy is only 405 miles so it uses up 84 minutes for two refueling stops. The *City of Glasgow* lands at Turndrome Aerodrome, Edinburgh 15 minutes before the *Flying Scotsman* enters Waverly Station, Edinburgh.

June 16, 1959 – A Navy Martin P4M Mercator is attacked by North Korean MiG 17 Frescos 20 miles east of the Korean Demilitarized Zone. The tail gunner is wounded and the aircraft seriously damaged by the crew manage to return to Miho AFB, Japan.



The Mercator has four engines. Two turbojets are mounted within the bottom of the engine nacelles.

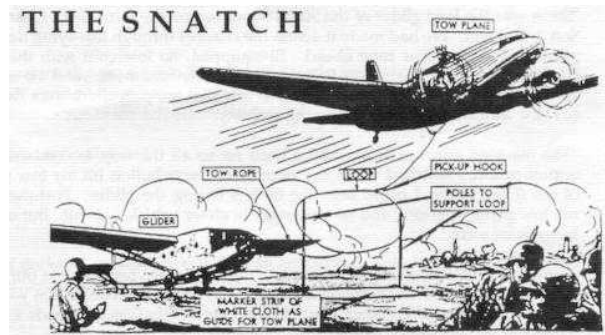
Two previous attacks on Mercators were conducted by the People's Democratic Republic of China. Previously, on April 23, 1953, Chinese MiG-15 Fagots attack a Navy P4M-4Q Mercator of the Chinese coast near Shanghai. The three aircraft exchanged fire without results.

On August 22, 1956 a P4M-1Q Mercator out of Iwauni, Japan disappears after a night-time attack by a Chinese fighter. The attack occurs 32 miles off the coast of Wenchow, China, about 180 north of Formosa. The 16 man crew are all killed.



VQ-1 Squadron P4M-1Q (Credit: NMofUSNA)

June 17, 1942 – U. S. Army Air Forces conduct a test at Wright Field in Dayton, Ohio in which they experimented with picking up gliders from the ground using a specially equipped aircraft in flight.



Snatching an object from the ground while airborne was not a new idea. In 1927, the USMC used a DH4 trailing a weighted wire to pick up a dispatch case which was hanging on a wire stretched between two poles.

Just over 800 American and British gliders were used on D-Day at Normandy. The Army Air Force attempted to recover some of them. Most were either wrecked in landing, battle-damaged, or in unfavorable recovery areas. The USAAF managed to recover 13 by snatching them but some 98% were scrapped on site.

The method was used commercially. In 1939, two men with notable ancestors promoted a similar system. Dr. Lytle S. Adams, a direct lineal descendent of Presidents John and John Quincy Adams developed an improved system and worked with Richard C. DuPont, a scion of the “chemical”

Duponts to promote the concept.

They signed a contract with the U.S. Postal Service to operate two routes: Philadelphia to Pittsburg and Pittsburgh to Gallipolis, Ohio and back to Pittsburgh. They used a Stinson SR-10C Reliant to pick up mail at small towns along the routes which had no regular postal service.



All America Aviation SR-10C on Pick-Up Run



*An AAA Beech 18 snatching the mail.
(Credit: Gary Ell Collection)*

Adams founded All America Aviation to hold the patents and service the routes. The Duponts were the financial backers.



When they added passenger service, the name was changed to All America Airways. Eventually, growth, buy-outs and mergers led to the formation of Allegheny Airlines (1951), USAir (1979), US Airways (1996) and a final 2013 merger with American Airlines and the phasing out of the prior brand names.

June 18, 1928 – A Latham 47 flying boat carrying Norwegian polar explorer Roald Amundsen and five others on a flight to search for survivors of the Italian airship *Italia* disappears. A wing float and gasoline tank were found some three months later and evidence indicates that the crash site is near the island of Bjørnøya in the Barents Sea.



Roald Amundsen



Amundsen and the Latham 47

The *Italia*, commanded by Umberto Nobile had crashed on the ice pack. Eventually half of the crew of 16 were rescued.



The Italia being prepared for flight

Previously Amundsen led the first expedition to reach the South Pole. Later, Amundsen navigated the the first flight over the North Pole The flight was conducted in the Italian semi-rigid airship *Norge* also designed and piloted by Umberto Nobile, a man whose grandstanding behavior and questionable leadership qualities tarnished his reputation.



The Norge over the coal mining settlement of Ny-Ålesund from which it departed on its historic trip to Teller, Alaska via the North Pole.

That Amundsen volunteered to assist in the search for Nobile and his crew says much about his noble character.

Jun 19, 1994 - A Royal Air Force BAe 146 from the Queen's flight overran the runway at Glenevedale Airport, Islay, Scotland. The pilot flying was RAF Group Captain, HRH Charles, Prince of Wales, Colonel-in-Chief of Canada's Air Reserve Group and heir apparent to HRH Elizabeth the Second, by the Grace of God of the United Kingdom, Canada and Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith.



A Board of Inquiry found aircraft pilot-in-

command, Squadron Leader Graham Laurie "negligent" in that '(he failed) to intervene when the aircraft performance and limitations were exceeded in the final stages of the flight." The Board also found the navigator negligent for "failing to advise the captain of the tailwind component and to draw his attention to the inaccurate approach parameters." Prince Charles was not blamed since he was regarded as a passenger who was invited to fly the aircraft! Its good be be the King apparent.

No one was injured by the aircraft sustained damage approximating £1 million. Such are the wages of an unstablized approach and a downwind landing.

The Prince was attending a series of engagements in the Hebridean Islands where he paid a visit to Laphroaig Distillery and was invited to bung two casks of Laphroaig. The two casks were given to him and he kindly donated to two charities.



Bunging and Accepting

For his personal consumption, the Prince received a commemorative miniature cask. Charles also signed a number of bottles for sale with the proceeds to go to charity. Selling prices exceeded £20,000. Such is the price of a bottle of good single-malt personally endorsed by the King Apparent.

If one ordered up a shot of Charles' Choice at the bar, the tab would be around \$1700. Think of the tip you would need to leave. Such is the cost of a quick picker-upper at Bar Hemingway at the Ritz in Paris.

QUIZ ANSWER

Each of the aircraft was adopted from a Navy design.