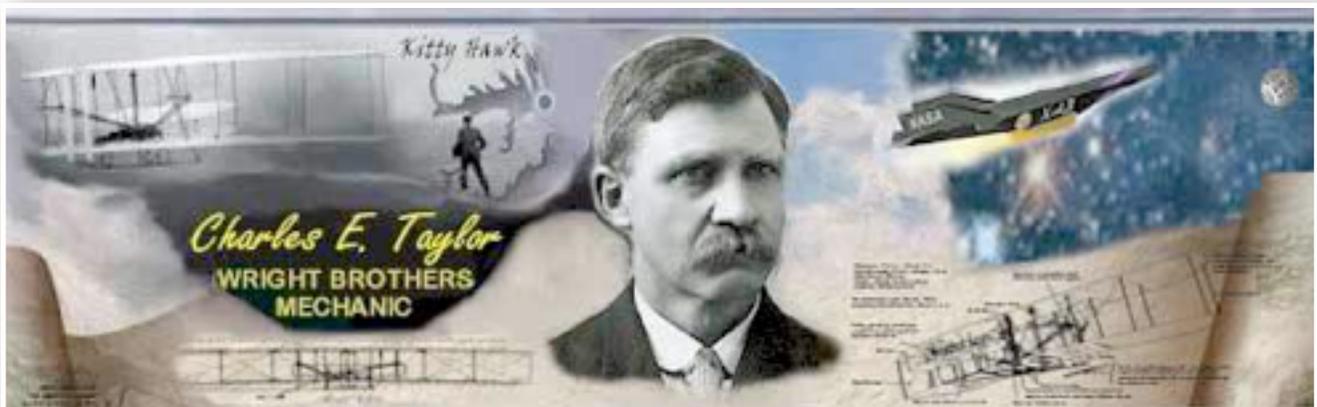


Aviation Human Factors Industry News

Volume XIV. Issue 18, September 02, 2018



From the sands of Kitty Hawk, the tradition lives on.

Hello all,

To subscribe send an email to: rhughes@humanfactorsedu.com

In this weeks edition of *Aviation Human Factors Industry News* you will read the following stories:

★The European Aviation Safety Agency (EASA) released the Annual Safety Review 2018

★Memorial unveiled to remember those who died in Manchester Air Disaster

★NTSB Cites Corrosion In FedEx Accident

★Close Call for Falcon with DEF-contaminated Fuel

★FAAST Blast — Biweekly FAA Safety Briefing News Update

★'Stressed, Weeping' Pilot Caused Deadly Nepal Plane Crash: Probe Report

★Government watchdog calls on military branches to standardize aviation crash investigation data

★And Much More

The European Aviation Safety Agency (EASA) released the Annual Safety Review 2018



http://r20.rs6.net/tn.jsp?f=0010FfUH-9b-The1QRy_Py7JN08B5PkMpc37WJEaA6u8DxKpPby_Ywm14wL5Uzc4DobtOPgOMikdNf5g-r8PE9rVRoTswysCqPycaC-YnRF9jdY7X64-nWVGKUJ2jF5wAHybCMkbQcufFS0hyzfjNNnMoEpAeXxL29zH3PjNRkthPncCj8z2PhKY1Ysp egizqJpHHpysTet9_xfN9v_dc-r2QpotlK0oGCO_NNxT8-MzwcyrB4Jjt6nx_9iH-54FLGzF8p0BctsbvJoM0jnMkX-KBFZrJBYfXmyHzMOaUv0Z9E=&c=bhXv9SYxSnUaKgDKvO20PQEyOdeY9WWrsmozisv4orGV0KcD6aePQw==&ch=TNQdc4IPvJYzyfmpIhvVoXSGokdYYyMFywNeF9Sz1-h2heEMSO8KmA==

Memorial unveiled to remember those who died in Manchester Air Disaster

A total of 55 people died after a Boeing 737-236 operated by British Airtours [suffered an engine failure](#) as it departed Manchester Airport

On August 22, 1985, a Boeing 737-236 operated by British Airtours and bound for Corfu suffered an engine failure as it departed Manchester Airport.



The crew abandoned take-off as they realized an engine had burst into flames and an evacuation was ordered. As they tried to escape, 55 of the 131 passengers and six crew on board lost their lives. Most victims were overcome by toxic smoke.

But there were also survivors, and as they recovered together in a ward of Wythenshawe Hospital, they made a solemn vow – that those who perished would never be forgotten [and that lessons would be learned by the aviation industry](#).

Now, 33 years later, [that promise has taken a new](#), timeless form with the unveiling of a memorial featuring the name of each person who lost their life.

The wooden tribute, in the Garden of Remembrance between Terminals 1 and 2, was at the heart of a service led by more than 500 relatives, friends, survivors and airport and emergency workers.

John Beardmore, 75, from Congleton, Cheshire, his wife Pamela and their sons David and Simon, were among survivors at the service.

Along with fellow survivors and relatives, they had campaigned for years for a more appropriate tribute than the A3 plaque in the prayer room of Terminal 3.

And, working with Manchester Airport, they helped design the new memorial – 42 carved posts featuring the names divided into family groups.

John said: “Recovering together in Wythenshawe Hospital, we made two promises. That those who died should never be forgotten and we would work hard to make sure that happened. The second one was that lessons would be learned from that horrendous day, and that those be implemented.”

The survivors have also made good on their second vow. Together, they formed [Scisafe](#), a group to campaign for better aviation safety.

They took their case to the House of Commons and there was a parliamentary select committee inquiry into cabin safety.

The legacy of the tragedy has led to air safety changes. [These include a policy where aircraft on fire](#) are stopped on the runway so passengers can be evacuated as quickly as possible. There have also been major changes to seating design close to emergency exits, the introduction of fire-resistant seat covers, walls and ceiling panels, as well as floor lighting, more on-board fire extinguishers, and clearer evacuation procedures.

John added: “Survivors and bereaved families would like to thank Manchester Airport and especially operations director Rad Taylor and George Lane, the chaplain who led the service.

“Both have helped us tremendously in the last three years and it’s culminated in today’s dedication of this fitting memorial. We’d also like to thank BA for their contribution.

“This is a memorial for those who died – but it’s also a beacon of hope for the future that the aviation

Industry will always remember that day and never forget the lessons learned.”

[View Gallery:](#)

<https://www.manchestereveningnews.co.uk/news/greater-manchester-news/gallery/british-airtours-disaster-9729699>

<https://www.facebook.com/SciSafe/>

NTSB Cites Corrosion In FedEx Accident

A landing gear collapse that caused a FedEx cargo jet to skid off the runway and subsequently catch fire in 2016 was caused by corrosion that led to **fatigue cracking**, the NTSB said in a report released on Thursday. The accident occurred shortly after the MD-10-10F touched down at Fort Lauderdale–Hollywood International Airport (FLL) on Oct. 28, 2016. According to the report (PDF),

NTSB investigators found that the failure of the left main landing gear was the result of an **undetected metal fatigue crack** within the gear. **The NTSB also found that the aircraft was nearly a year overdue for an overhaul on its main landing gear.**

The report states that the oversight was a contributing factor in the accident since the crack in the gear likely would have been found during the overhaul.



After the gear collapsed, the aircraft veered off to the left side of the runway and came to a stop. A fire started, fed by a broken fuel supply tube, and the left main fuel tank exploded. The two flight crewmembers—who were the only people onboard—were able to evacuate with only minor injuries sustained. The aircraft was “damaged beyond economical repair.”

<https://app.nts.gov/pdfgenerator/ReportGeneratorFile.ashx?EventID=20161028X93712&AKey=1&RType=Final&IType=MA>

Close Call for Falcon with DEF-contaminated Fuel

Another mishap involving jet-A contaminated by diesel exhaust fluid (DEF) occurred on August 14 when a Fair Wind Air Charter-operated Dassault Falcon 900EX was forced to make an emergency return to Miami Opa-Locka Airport after suffering **failure of two of its three engines**. DEF, a urea-based solution that lowers nitrogen oxide pollutants in diesel exhaust, is not approved for use in jet fuel. **When the two are accidentally mixed**, crystals form, causing potentially catastrophic clogs throughout aircraft fuel systems.



According to Alexander Beringer, COO of Fair Wind, the problem manifested itself soon after takeoff, as the aircraft indicated a clog in its number-two engine fuel filter, followed quickly by the same indication in the number-three powerplant. The crew decided to return to base and then declared an emergency when the number-two engine failed.

At 8,000 feet on approach, the number-three engine became unresponsive to throttle input, yet the crew landed safely on just the number-one engine, which also reported a filter clog. "We got lucky," he said, noting the entire incident occurred in less than 12 minutes from start to finish.

While the damage is still being tallied, Beringer noted that all three engines will have to be removed and undergo hot-section inspections; the APU will have to be removed, inspected and repaired; fuel pumps, filters, and control units will require replacement, and all the aircraft's fuel tanks will have to be opened up and thoroughly cleaned. Estimates call for at least a month of downtime and more than [\\$1 million in cost](#).

Beringer said the FBO, which he declined to identify, has claimed full responsibility for the incident. "Their safety controls were good. It fell apart on one issue and that could have happened anywhere." He said his company performed an on-site investigation and it is believed that a refueler-mounted Prist tank, which was removed for repair, [was accidentally filled with DEF](#) in a leak test before it was reinstalled.

The FAA is investigating the situation and is expected to issue a Special Airworthiness Information Bulletin similar to the one it issued last December, after an incident at a Nebraska airport.

Last November, seven turbine-powered aircraft at Omaha's Eppley Air Field were serviced with jet fuel that [had accidentally been treated with DEF](#) instead of fuel system icing inhibitor, while a further six aircraft were serviced using equipment that had been exposed to DEF.

Beringer believes that this mistake can happen again unless all airport service vehicles are exempted from any DEF-usage requirements. "That gets the fluid off airport properties and fixes it for good," he told **AIN**. "The industry needs to petition, as a group with one voice, federal and state regulators to come up with a permanent fix to this risk."

[http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgSAIB.nsf/dc7bd4f27e5f107486257221005f069d/457ed8c2a94c9159862582020054eccc/\\$FILE/HQ-18-08R1.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgSAIB.nsf/dc7bd4f27e5f107486257221005f069d/457ed8c2a94c9159862582020054eccc/$FILE/HQ-18-08R1.pdf)

<https://www.ainonline.com/aviation-news/aerospace/2017-11-30/faa-issues-fuel-contamination-warning>

FAAST Blast — Biweekly FAA Safety Briefing News Update

2018 Rotorcraft Safety Conference

The FAA will host the 2018 International Rotorcraft Safety Conference in an effort to reduce the national helicopter accident rate, particularly among small operators. The three-day, free event, featuring nearly 35 presentations and seminars, will offer Inspection Authorization and FAA AMT and WINGS credits. The conference will take place October 23-25, 2018, at the Hurst Conference Center in Hurst, Texas, a Fort Worth suburb. The conference will be an excellent opportunity for pilots, mechanics, and other stakeholders to review, discuss, and consider new ways to help improve rotorcraft safety. For more details, including registration information:

[go to www.faahelisafety.org.](http://www.faahelisafety.org)

Thinking for Two

Instructional flights are the second largest category of non-commercial fixed wing accidents. Since you, as the instructor, are the pilot in command, you have to do the thinking for both the trainee and yourself.

Flight instruction inherently involves multitasking, so your attention is constantly shifting. If you are a flight instructor, then please read the article:

“[Thinking for Two – Managing Instructional Risk](#)” in the July/August 2018 issue here: adobe.ly/2MxXzBr. You can read the entire issue at 1.usa.gov/FAA_ASB.

'Stressed, Weeping' Pilot Caused Deadly Nepal Plane Crash: Probe Report

The March 12 flight from the Bangladeshi capital Dhaka crash-landed at Kathmandu airport and skidded into a football field where it burst into flames, killing 51 people in the deadliest aviation accident in the Himalayan nation for decades.

An investigation into a deadly plane crash at Nepal's international airport has blamed the captain [who wept and suffered an emotional breakdown](#) during the flight after his skills had been questioned, according to a draft of the report leaked Monday.

The March 12 flight from the Bangladeshi capital Dhaka crash-landed at Kathmandu airport and skidded into a football field where it burst into flames, killing 51 people in the deadliest aviation accident in the Himalayan nation for decades.

The draft copy of the final investigation report, seen by AFP, concludes the US-Bangla Airlines captain was "under stress and emotionally disturbed" after a co-worker had "questioned his reputation as a good instructor".



Captain Abid Sultan was "crying and sneezing on several occasions during the flight", it adds.

During the short flight from Dhaka to Kathmandu, Sultan -- a former Bangladesh Air Force pilot who was also an instructor for the airline -- talked non-stop as he tried to impress upon the junior co-pilot his competence and proficiency.

The captain's constant monologue led to the "total disorientation" of the co-pilot, who was flying the plane when it crashed. Prithula Rashid had only recently qualified and had never previously landed at Kathmandu airport.

Nepal's only international airport lies in a narrow bowl-shaped valley with the Himalayas to the north, making it a notoriously challenging place to land.

As the Bombardier Dash 8 Q400 turboprop approached the runway it made a last-minute change of direction, failed to sufficiently reduce its speed and did not carry out the necessary landing checks, investigators said.

The report revised the final death toll up to 51, including both pilots. Twenty passengers miraculously escaped the burning wreckage but sustained serious injuries.

Conflicting reports that emerged shortly after the crash had suggested confusion between the pilot and air traffic control may have caused the accident.

The report said air traffic control did confuse the two ends of the runway -- referred to as 'Runway 02' and 'Runway 20' -- but concluded "this had no impact on the flight".

A source at Nepal's Tourism Ministry, which led the probe into the crash, confirmed the authenticity of the draft.

The accident was Nepal's deadliest since September 1992, when all 167 people aboard a Pakistan International Airlines plane were killed when it crashed as it approached Kathmandu airport.

Just two months earlier a Thai Airways aircraft had crashed near the same airport, killing 113 people.

Nepal's poor air safety record is largely blamed on inadequate maintenance and sub-standard management. Accidents are common and Nepal-based airlines are banned from flying in European Union airspace.

Government watchdog calls on military branches to standardize aviation crash investigation data

As the Department of Defense works to improve safety following a spate of recent aviation mishaps, a government watchdog says there needs to be more standardization across military branches when it comes to the data that results from investigations into mishaps.



The Government Accountability Office says the safety centers for the Air Force, Army, and Navy all collect different information when investigating an aircraft crash or problem.

The Naval Safety Center, which investigates for both Navy and Marine Corps aviation mishaps, is based in Norfolk.

Military aviation mishaps have been a concern for the Department of Defense in recent years.

16 service members were killed in a month's time earlier this year, all in non-combat crashes that impacted multiple service branches.

In Mid-March, two Virginia Beach-based Naval aviators were killed when their F/A-18 Super Hornet went down just one mile off the runway on final approach to Boca Chica Field at Naval Air Station Key West.

LCDR James Brice Johnson and LT Caleb Nathaniel King from Strike Fighter Squadron 213 were remembered and honored across Hampton Roads.

The watchdog report says the military safety centers [are not collecting standardized aviation mishap data](#). Specifically, they found "the safety centers did not collect standardized data for 10 to 17 of the 35 agreed-upon data elements for aviation mishaps that were to be provided to the Office of the Secretary of Defense (OSD), depending on the service."

The GAO also found that there's [a lack of consensus on reporting casual factors, such as performance-based errors](#), that contributed to the mishaps. They also said that there is not consistent collection of training data to help analyze trends in mishaps.

The watchdog report says "recent studies have suggested that training shortfalls are a potential indicator of trends in aviation mishaps, but additional training data would be required for further analysis."

In the report, the GAO made three recommendations including that the Department of Defense should take interim steps to ensure standardized aviation mishap data elements are collected by the safety centers for each of the service branches and [ensure human factors and training-data are included](#).

Doing this, according to the GAO, "would allow DOD to conduct broader mishap analysis that could inform risk-management decisions and improve aviation safety." In a response to the report, the Department of Defense concurred with all the recommendations

[You can read the entire report from the Government Accountability Office here.](#)

United Airlines using iPads to cut down on delays

Now pilots can send in maintenance requests or issues to techs on the ground, so crews know what they'll need for a fix **before** the plane even touches down.

United Airlines maintenance crews are always on the move. The summer months are especially busy. "The departures during summer are always higher," said Maintenance Shift Manager David Caster.

But now there's a new tool helping get you to your destinations a lot faster.

"Technicians will use the iPad to actually work the aircraft," said Caster.

Caster says United Airlines is the only U.S. airline using iPad technology for aircraft maintenance. It debuted the iPads earlier this year. There are 6,000 in airports around the world. 600 alone at Bush Airport.



"This is a game changer for anything aviation," said Caster.

The iPads significantly cut down on delays, shaving a minimum of 17 to 18 minutes off maintenance repairs. That gets you on your way 50 percent faster.

"The iPads give us that edge," said Caster. "It gives us efficiency we need that allows us to operate in a safe and on time manner."

Now pilots can send in maintenance requests or issues to techs on the ground, so crews know what they'll need for a fix before the plane even touches down.

"At any given time they have everything they need in 1 product," said Caster.

Believe it or not, other U.S. airlines still using paper logbooks.

"It's all about efficiency for us," said Caster.

United technicians say this small gadget is a big step forward and one of the unexpected keys to cutting down on travel time. So far it's working. This July United saw a 23 percent reduction in delay time caused by maintenance issues.

Air Ambulance called to Manchester Airport after tug crash

The North West Air Ambulance was called to Manchester Airport today after a crash between an aircraft tug and another vehicle left one person trapped.

The Tug is understood to have collided with a catering truck leaving the tug driver with serious leg injuries according to an eyewitness who did not wish to be named.



It is believed that the injured man works for ground handling company Aviator and the catering truck belonged to Alpha LSG. The truck driver is not understood to be seriously injured.

Airport Fire Services and North West Ambulance attended the scene along with the Air Ambulance and the injured man was transferred to hospital.

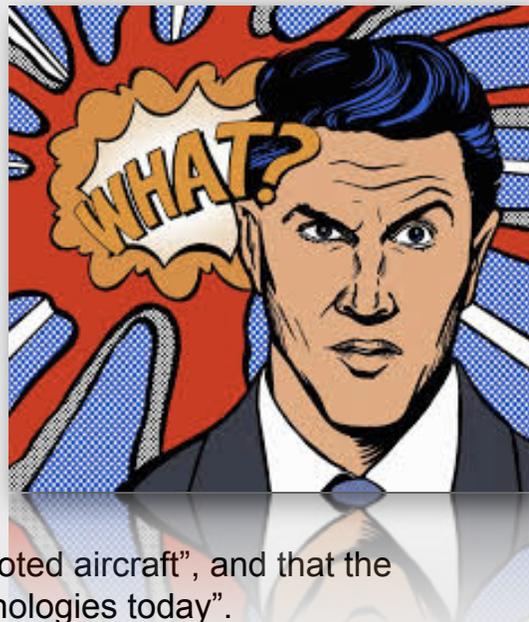
Earlier this year one man died when two vehicles collided at London's Heathrow Airport.

<https://ukaviation.news/heathrow-t5-disruption-serious-accident/>

Boeing announce plans for one-pilot planes

Under current EU aviation law, all passenger planes with over twenty seats are legally required to have at least two pilots in the cockpit. But, could that be about to change? According to plane maker Boeing, it could be. The company say that they are currently **working on new technology** that would remove the need for there to be two pilots on its planes.

Vice president of the firm, Steve Nordlund said that the new technology, which would allow for less crew on board, is being developed at a "good speed". He said in an interview that Boeing "believes in autonomous flight and self-piloted aircraft", and that the commercial division were "working on those technologies today".



He suggested that the initial trials could be carried out on cargo jets, and that it makes “business sense” to extend it to passenger planes in the future. He added: “But what you may see is more automation and aiding in the cockpit, [maybe a change in the crew number up in the cockpit](#). A combination of safety, economics and technology all have to converge, and I think we are starting to see that.”

In addition to the financial benefits it could bring to airlines, it would also deal with the ongoing shortages of pilots. And although planes are becoming increasingly automated, analysts have predicted that in the next decade, there could be a shortfall of around 200,000 if changes aren’t made in the industry.

However, the move [could prove to be a tough sell](#) to both regulators, airline staff, and of course, consumers. It’s believed that safety would be the number one concern. The European aviation safety authority (EASA) require two members of crew to be in the cabin at all time during passenger flights, meaning that even if one pilot needed to take a short break, another member of the crew would need to take their place.

In the US, the Federal Aviation Administration recently asked Congress for funding to research the possibility of single pilot flights on commercial airlines. [The response was](#): “Having only one pilot in any commercial aircraft flies in the face of evidence and logic. Every safety protocol we have is predicated on having two pilots work seamlessly together as an expert team cross-checking and backing each other up.”

Dr Rob Hunter, head of flight safety at the pilot’s union Balpa, noted that there’s been a “steady reduction in the number of crew on the flight deck of commercial aircraft”. However, he expressed concerns that it could be a “greater number of occasions when the both the machine and the pilot becomes overwhelmed”.

He added: “In the airliners of the post-war period there were up to six crew acting as pilots, flight engineers, navigators and radio operators. All of these roles are now undertaken typically by just two pilots that are, more-or-less, supported by automatic systems. [Sully is absolutely right, to believe otherwise is to ignore the vital role the human plays in keeping things safe.](#)”

VANISHED PLANE NOT WITHOUT PRECEDENT

Fifty-four years before Malaysia Airlines Flight 370 went missing another airliner vanished over the ocean. [It just evaporated.](#) To this day, just what happened to it is unknown, but speculation is rife – speculation fueled by the eyewitness report of those aboard a tanker who witnessed the craft's destruction.



March 15, 1962 a Flying Tiger Line L1049H Super Constellation, bound from Agana Naval Air Station in Guam to Clark Air Force Base in the Philippines simply ceased to exist. N 6921C, Flying Tiger Flight 739/14, disappeared at 13°13' North Latitude, 140°00' East Longitude – over an all but bottomless patch of the Pacific, an abyss called the Mariana Trench. [This deepest of all depressions in the Earth's crust](#) is an astonishing 6.78 miles deep – this compared to the relatively shallow 300-foot or so along MH370's original projected flight path.

In all probability it's the virtually bottomless depths of the Pacific that entomb the remains of "21 Charlie," the call sign of the Flying Tiger Connie.

21 Charlie, operating as a charter flight for the Military Air Transport Service, was ferrying American Army personnel from Travis Air Force Base, California to Saigon, to a country we once called South Vietnam. There were 107 people on board that airplane. One of them was my stepfather. He was the co-pilot.

Bob Gazzaway was a pugnacious, plucky sort of guy who'd survived all that life could dish out – and that included being a Naval aviator during World War II.

In command of the Connie (the nickname of the Super Constellation), was Captain Gregory P. Thomas, one of Flying Tigers' most experienced pilots.

21 Charlie's path across the Pacific was placid. An Aircraft Accident Report obtained by this reporter from the U.S. Civil Aeronautics Board (the predecessor of the National Transportation Safety Board) says the weather that night was good – broken cumulus clouds, no turbulence, and moonlit visibility of 15 miles – the kind of night airmen relish.

At 22 minutes after midnight, 21 Charlie radioed its position. It was the last the outside world would hear from the crew. About an hour later the crew of the S/S T L Lenzen, a Standard Oil tanker, spotted an explosion in the sky. According to the CAB report, the crew spotted “a vapor trail, or some phenomenon resembling a vapor trail overhead...As this vapor trail passed behind a cloud, there occurred an explosion which was described by the witnesses as intensely luminous, with a white nucleus surrounded by a reddish-orange periphery with radial lines of identically colored lights.”

[What happened? The CAB couldn't determine a probable cause.](#)

In the absence of hard physical evidence, rumors ran rampant, just as they have with Malaysia Flight 370. At the time people speculated about engine problems, sabotage, even the accidental shoot down of the Connie by an American missile, an inadvertent act that scuttlebutt said was covered up by an embarrassed Pentagon at the beginning of what would mutate into the most unpopular war in American history.

Lending at least anecdotal credence to the shoot-down and sabotage theories is a statement by Captain Duilio Bona. The late award-winning investigative reporter David Morrissey and I obtained a copy of his declaration after filing a Freedom of Information request with the United States government. In his declaration, Captain Bona said some fascinating things. Among the more intriguing: the witnesses aboard the Lenzen were “convinced [that the craft they saw explode was “a U.S. Airplane...on [military] exercise flights.”

One of Bona's crewmembers, a lookout named Scarfi said, "he saw a jet vapor track," according to the captain. 21Charlie was a piston-engine airliner. Shortly after the vapor trail, Bona said Scarfi recalled, "a bright light illuminated, as a lightning, the bridge [of the ship]."

Lenzen's radio operator said there were no distress signals from the aircraft, a statement that led the CAB to conclude in its Accident Report "It can be reasonably assumed" that whatever befell 21 Charlie "happened suddenly and without warning."

Captain Bona said the radio operator of Lenzen tried "repeatedly" to contact Naval radio stations in Guam, Manila, Okinawa, and Iwo Jima – all to no avail. And that led to Bona's conclusion "that what we saw was a troubled secret operation."

Troubled by what, or by whom, Bona never said. A missile? Sabotage perhaps? Remember, this was the Cold War, and Vietnam was just beginning to heat up. In its report, the CAB said when 21 Charlie was parked at Honolulu, Wake Island, and Guam just about anyone could access the aircraft "without challenge...the aircraft was left unattended in a dimly lighted area for a period of time while at Guam."

In a letter on the disaster the Federal Bureau of Investigation concluded the Bureau "did not anticipate [launching an investigation] unless substantial evidence of willful destruction is developed."

Then there's a more mundane theory: engine problems. Three days before it disappeared, 21 Charlie had to return to Honolulu when number four engine developed "a significant power loss."

Shoot-down, sabotage or something else? The odds are we'll never know. 21 Charlie carried no flight data recorder, no cockpit voice recorder. The United States government says evidence of "willful destruction" was never recovered – this despite one of the most massive sea searches in history, a quest covering 144,000 square miles of ocean that employed 1,300 people, 48 aircraft, and 8 surface vessels.

“Despite the thoroughness of the search,” concluded the Civil Aeronautics Board, “nothing was found which could conceivably be linked to the missing aircraft or its occupants.”

And so it is, 54 years after the fact, that the fate of the Flying Tiger Connie and 107 souls on board remains a mystery – a mystery the answers to which are shrouded by seven miles of water.

Now, we have a new mystery on our hands. Odds are it will be solved far before the passing of a half-century.

Blue Angels Upgrade To Super Hornets

The U.S. Navy has awarded Boeing a contract to configure [nine F/A-18E and two F/A-18F Super Hornets for the Blue Angels demonstration team](#). Since the team's first performance in 1946, the Blue Angels have used eight



aircraft models, including the F11F-1 Tiger, F-4J Phantom II and A-4F Skyhawk II. They have been flying F/A-18C/D Hornets since 1986.

The contract for getting the eleven Super Hornets ready for their debut with the Blue Angels, which is worth approximately \$17 million, was awarded to Boeing on Monday. Although not specifically stated what changes would be made to the aircraft, conversions on the team's currently flying Hornets included removing the aircraft nose cannons, installing smoke-oil tanks and adding a spring on the sticks.

Overall, the Super Hornet is bigger by about four feet in both length and wingspan than the Hornet and heavier by roughly 10,000 pounds. At a maximum speed of Mach 1.6, the Super Hornet is slightly slower than the Hornet's max of Mach 1.8.

According to a Department of Defense release, the Blue Angels Super Hornet conversions will be performed at Boeing's St. Louis, Missouri, facility. The scheduled completion date for the project is December 2021.

NTSB and FAA investigating injury of a worker at Philadelphia International Airport

The National Transportation Safety Board and the Federal Aviation Administration are investigating an incident involving a [ground crew worker](#) who was badly injured at Philadelphia International Airport on Friday evening, [during pushback](#) for a departing Aer Lingus flight. Police identified the victim as a 60-year-old man, and said he was [caught under an airplane moving tug and the wheel of the plane](#).

The man was placed in critical condition at Penn Presbyterian Medical Center, police said.

"The NTSB is investigating this accident," a spokesman for the safety board said.

"We're still at the early stages."

The Aer Lingus flight, bound for Dublin, was being operated by a different airline, ASL Ireland. The injured worker was employed by a separate ground handling company, Dubai-based Dnata. According to ASL spokesman Andrew Kelly, the ground handling crew had control of the airplane during the incident, which ASL also reported to safety regulators in Ireland.

Dnata confirmed the injured worker is their employee. "We are providing him and his family with all possible support," a spokesman said. The company didn't comment on how the incident occurred, or the type of work the man was performing when it happened.

