



SAFETY CORNER

CORPORATE AIR
NEWSLETTER

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NEXTGEN AVIATION SAFETY - STRATEGIES AND SOLUTIONS OF A SAFETY MANAGEMENT SYSTEM

THE DUCK BOAT STORY

On July 19, 2018 a duck boat sightseeing vessel capsized and sunk on Table Rock Lake in Branson Missouri after a thunderstorm created turbulent waters and high winds. The duck boat industry is one of the few public transportation services that regulators do not require Safety Management Systems, SMS. If the company that operated the duck boat service had SMS, this tragedy could have been avoided for a simple reason: SMS requires pre-operational hazard identification, incident analysis and risk assessment. Within a non-SMS world, risk assessments are post operational and often made on the fly.

THERE IS ALWAYS A TRAIL OF THINGS GOING OUT-OF-CONTROL BEFORE EVERY ACCIDENT

The Coast Guard prohibited the vessel from operating from January 2015 to April 2015, but the report does not state a reason other than "hazardous/unsafe condition." Another report from February 2015 cited leakage in a wheel well caused by sealant failure.

The owner of an inspection service had issued a written report in August 2017 to the duck boat operator after inspecting their two dozen boats. This report stated that the vessels' engines — and pumps that remove water from their hulls — might fail in inclement weather.

Duck boats have a history of fatal and less serious accidents. It's often led to criticism about their design and use as tourist vehicles.



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QUOTES

- 1) "The Way Get Started Is To Quit Talking And Begin Doing."
— Walt Disney
- 2) "The Pessimist Sees Difficulty In Every Opportunity. The Optimist Sees Opportunity In Every Difficulty."
— Winston Churchill
- 3) "Don't Let Yesterday Take Up Too Much Of Today."
— Will Rogers
- 4) "You Learn More From Failure Than From Success. Don't Let It Stop You. Failure Builds Character."
— Unknown
- 5) "It's Not Whether You Get Knocked Down, It's Whether You Get Up."
— Vince Lombardi
- 6) "If You Are Working On Something That You Really Care About, You Don't Have To Be Pushed. The Vision Pulls You."
— Steve Jobs

IMPLEMENT NEW REGULATIONS FOR ACCIDENTS NEVER TO HAPPEN AGAIN

It is commonly said, and widely accepted in the aviation industry, marine operations and commonly understood by the public that regulations prevents accidents. After each severe accident a new regulation is put in place for all of us to be taken care of and safe. Nothing is farther from the facts than this statement since regulatory compliant pilots, aircraft and operators have since the first flight of 1903 experienced catastrophic accidents. If regulatory requirements were minim safety requirements there would be no accidents.

REGULATORY REQUIREMENTS ARE THE HIGHEST LEVEL OF RISKS THAT THE GOVERNMENT WILL ACCEPT

Regulations are the risk level accepted by a Governing State for a Certificate to be issued to an operator with an expectation that catastrophe accidents could happen within undefined intervals. The intent, or design of regulations is not to set up for failure, or accidents, since regulatory compliance itself does not prevent accidents. Regulatory compliance is the authority for an operator to provide a service to the public. Where a Safety Management System is implemented by regulatory requirements or voluntarily, safety in operations rests with the operator. For an operator, it is not acceptable to operate within a culture that accepts a catastrophic accident at any intervals, or operate with a risk level that accepts accidents.

SAFETY CRITICAL AREAS AND SAFETY CRITICAL FUNCTIONS

Safety critical areas and safety critical functions are the safety risk level bars that must be passed for continuous safety improvements in operations. Without defining what is safety critical in operations it becomes an unmanageable task for the captain to make reliable safe decisions.

THIS MONTH IN HISTORY

Japan Airlines Flight 123

In 1978 the aircraft floated after touchdown and on the second touchdown the tail struck the runway. The aircraft sustained substantial damage to the rear underside of the fuselage. Then, on August 12, 1985, flight 123 departed Tokyo-Haneda for Osaka. Twelve minutes after takeoff, while climbing through 23900 feet at a speed of 300 knots, an unusual vibration occurred. An impact force raised the nose of the aircraft and control problems were experienced. A decompression had occurred. The rear pressure bulkhead had ruptured, causing serious damage to the rear of the plane. Controlling the plane became very difficult as the airplane experienced dutch rolls and phugoid oscillations. The aircraft crashed on top of a mountain ridge.

THE CAUSE

The initiation and propagation of the fatigue cracks are attributable to the improper repairs of the said bulkhead conducted in 1978, and it is estimated that the fatigue cracks having not be found in the later maintenance inspection is contributive to their propagation leading to the rupture of the said bulkhead.



When the key to safety critical areas is altered, what's on the other side is hidden.

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