



# AEI Newsletter

## European Safety Standards Drop

Despite the constant denials from the EU to the numerous warnings from AEI about the unrelenting lowering of standards the truth can no longer be hidden.

The EASA Advisory Board (EAB) Chairman at a recent meeting suggested that safety levels in the United States were now better than in Europe. In addition 2009 has witnessed one of the worst starts to a year as far as accidents are concerned.

All this of course will come as no surprise to many of us but what is astonishing is the speed at which this turn-around has taken place. Many will probably use the situation to conclude that EASA are not fit for purpose as the lowering

of standards has taken place on their watch.

AEI however believes the problems lie elsewhere. We have all experienced the scathing cutbacks made by industry in its drive to lower



costs. We all know that cost cutting has its limits which if ignored can lead to disaster. We all know that regulators are often slow to react once aware of a situation and often

intervene once its far too late.

Yet despite these issues the EASA standardization teams are doing a fine job and do uncover many of these situations along with many more.

However, EASA have no powers of enforcement. The standardization teams findings are sent to the EU Transport Commission in Brussels. Its here in our opinion that the system grinds to a halt with the inevitable resulting drop in standards.

Air Safety must not be allowed to become a play thing for politicians. Safety standards must be maintained by independent safety experts. →

## European Safety Standards Cont.

→ The current set up is unprofessional and damaging for all concerned.

EASA must be given powers of enforcement in order to be able to maintain not only the highest standards but also its own credibility. Politicians are

not solely to blame though.

The current financial crisis has shown us all that allowing industry generals to self regulate can be dangerous. Aviation is no different.

The proven way to halt the

downward safety trend is strong regulation by a truly independent regulator.



### Aircraft Engineers

#### Special Points of Interests:

- European Safety Standards
- American Maintenance
- A&P Licence Issues
- Just Culture
- What was it?

#### Inside this issue:

American Maintenance	2
A&P licence Issues	3
A Just Safety Culture	4
Annual Congress News	5
What is it?	6
What was it?	6



## NTSB Criticises American

The US National Transportation Safety Board (NTSB) have criticised American Airlines use of "inappropriate" maintenance procedures. Issues were uncovered during the investigation into American Airlines Flight AA1400 incident back in September 2007.

Also contributing to the accident were deficiencies in the FAA's continuing analysis and surveillance system (CASS), a programme that gives operators the responsibility for evaluating, analysing and correcting systemic maintenance and inspections problems.

The failings led to an engine fire and subsequent complicated emergency landing of the MD-82 shortly after takeoff from the St. Louis Lambert International Airport.

Prior to the incident faulty work was performed by American's maintenance staff, both in planned depot visits and on the

line. Investigators found that the left engine's air turbine starter valve (ATSV) air filter had disintegrated due to improper cleaning maintenance, most likely during the aircraft's most recent "C" maintenance check 10 months before the accident. That fault caused numerous failed starting attempts for that particular engine, and led to manual starts by mechanics on the ground.

The ATSV provides forced pneumatic air to start an engine, though because of issues with the air filter, a part not designed to be replaced during the life of the aircraft, the ATSV could not reliably provide air to start the engine. Mechanics had been called in to use a manual procedure to start the engine numerous times in the previous 10 days and had replaced the ATSV six times without properly diagnosing the issue with the separate filtering unit. In addition, the line mechanics had been using a non-approved but

time-saving procedure to manually start the engines in such circumstances, which involved using a lever to push a manual start button under the engine. However the action had damaged the manual starting switch, a possibility Boeing warned operators about in 1997.

The damage ultimately caused the starter to engage during take-off and climb, causing the device to self-destruct and create an ignition source within the nacelle.

American in the aftermath of the accident modified its maintenance programme and pilot procedures to correct several of the issues discovered in the investigation.

For American Airlines, the Board recommended finding out why CASS did not reveal the maintenance issues or the lack of compliance with carrier procedures before the accident occurred.

### NTSB Report

**“The air starter valve was replaced 6 times without proper diagnosis of the fault”**

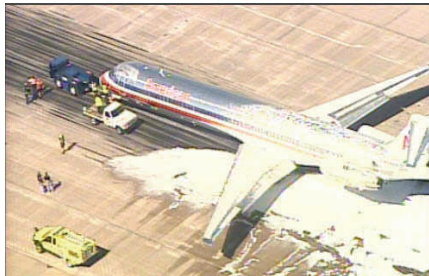
## Timely Reminder

The incident reported above bears striking similarities to American Airlines flight 191. Then as now unapproved maintenance procedures were being used in order to save time resulting in an engine departing the wing during take off killing all those on board. Both these events

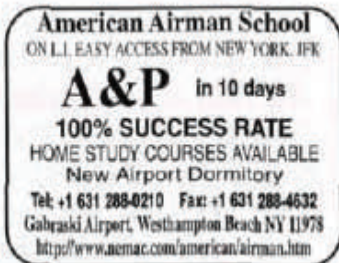
highlight just how easy it is for well intentioned actions to turn into disaster. Both events also happened many months after the initial errors were made.

We are all well aware of the pressures on us to cut corners but we must do all we can to

resist them. One further point of interest from the AA 1400 incident is that once again regulatory oversight has been questioned. Eventually the authorities will have to concede that industry just isn't responsible enough to regulate itself.



**Go on, what can possibly go wrong?**



Are the Rest of The  
World Immune?

“The UK  
and Spain  
are  
currently  
questioning  
licenses  
issued by  
their  
NAA”



## Improperly Issued A & P

Hundreds of FAA-certified aircraft mechanics nationwide including dozens in Texas may have been improperly licensed since the early 1990s, a WFAA-TV investigation has found.

The mechanics received their certification in FAA-approved testing centers that in some instances acted as "diploma mills" in which mechanics were improperly tested. Others may not have been required to speak and read English - the most basic requirement for U.S. certification.

Though the FAA has uncovered instances of bogus certification, hundreds of mechanics have never been rigorously re-tested. "Rather than having them demonstrate their competency to the required exam, they (the FAA) just gave them their watered down test and let them go," said Gabe Bruno, a former FAA manager. Other mechanics who failed FAA-administered retests, or had their certification revoked, may still continue to repair planes.

"Even if these people come in and they fail the retest, the FAA makes no effort to warn whoever it is they've been working for," Bruno added. "They say it is not their job."

Bruno knows about the problem. He began to investigate the issuance of more than 1,800 mechanics improperly granted repair certificates at St. George Aviation Testing Center in Florida in 1999. A federal investigation found that George

Aviation was selling repair licenses to improperly tested mechanics. Two men served prison time in the scandal, including owner Anthony St. George.

Instead of rigorous testing, Bruno's investigation for the FAA found St. George-certified mechanics didn't often complete major portions of the three-part written, oral and practical exams. Some were allowed to cheat. Often, the all-day or multi-day tests were condensed down to less than an hour. Bruno initially helped re-test about 350 of the St. George certified mechanics, with about 80 percent surrendering or failing the exams. But the FAA abruptly suspended re-testing of the remaining 1,500 mechanics until 2005.

That's when the Chalk's Ocean Airways seaplane crashed on takeoff in Miami. Twenty people were killed when the right wing of the aircraft broke off as a result of faulty maintenance. Government investigators recently revealed that a St. George mechanic had worked on the plane.

The FAA rushed in to re-test the mechanic several weeks after the crash. The mechanic failed the re-test twice and had his license revoked. The NTSB found the FAA was "causal" in dealing with events leading up to the tragic accident. Chalk's subsequently went out of business. "There were all kinds of warnings that nobody took any action on to

ensure the safety of the flying public," Bruno said. The FAA said there is no evidence that the mechanic worked or had responsibility for the plane's wing.

"How do these types of things happen?" said Rich Rutecky, whose father died in Chalk's air crash. "How do you get into a situation where you have uncertified mechanics working on equipment. You're talking about people's lives"

Now, a decade later, the FAA still has not re-tested up to 80 St. George mechanics. Only 43 percent successfully completed re-examination, with nearly 700 others having their licenses suspended, revoked, or surrendered. In a 1993 audit, the Department of Transportation's Inspector General uncovered widespread problems with nearly two dozen so-called "designated mechanic examiners," or DMEs, who administer licensing exams to mechanics. The audit concluded: "the FAA cannot be assured that only qualified applicants were certified as aviation mechanics. Bruno said he has repeatedly asked the FAA to check to see if any St. George-certified mechanics were involved in working on planes that have had accidents. But he said he believes his calls have been ignored.

"The FAA has violated the public's trust in this area," Bruno said. "The public relies on the FAA to provide safety to the system."

## Do Politicians Really Care About Your Safety?

It is fast becoming common practice in many countries to initiate legal investigations immediately after an aircraft accident. Evidence such as Flight Data Recorders and Cockpit Voice Recorders has even been withheld from the accident investigating team. Furthermore aviation professionals connected to the accident aircraft often find themselves in a guilty until proven innocent situation which can have a devastating effect on their private lives. Many are treated as criminals and are quite often prosecuted.

**AEI strongly condemns the growing trend of criminalising aviation accidents.**

The travelling public needs to realise that applying pressure to place blame actually threatens to lower safety levels not improve them. AEI are not calling for a no blame culture but for a just culture. Aviation professionals work under

extreme pressure and impossible circumstances. Genuine mistakes are therefore unavoidable and in our opinion should not be punished.

It has been well documented that an open reporting culture where we can learn from genuine mistakes actually improves safety over time. A culture determined to criminalise genuine mistakes has the opposite effect and safety levels decrease over time.

How then should accident investigations be used and how should the judicial system react to the information collected?

The answer has already been clearly defined by ICAO. This global body has been devising global aviation regulations since 1944. These are the regulations which must be adhered to in order to maintain a minimum acceptable standard. Annex 13 of their regulations sets out what is required.

### **OBJECTIVE OF THE INVESTIGATION**

**3.1 The sole objective of the investigation of an accident or incident shall be the prevention of accidents and incidents. It is not the purpose of this activity to apportion blame or liability.**

Aircraft accidents are tragic events the human cost is often enormous. Accidents also evoke strong emotions and often the need to apportion blame can affect sound judgement. This in turn can exert pressure on governments and judicial systems who then react in order to appear to be doing at least something. However we all need to give some thought to what we actually want to achieve. If revenge or retaliation is what we really seek, then prosecute. Criminalising individuals for genuine mistakes may offer short term satisfaction but the travelling public must also be prepared to accept more accidents as a result. →



**Safety is important on the ramp too**

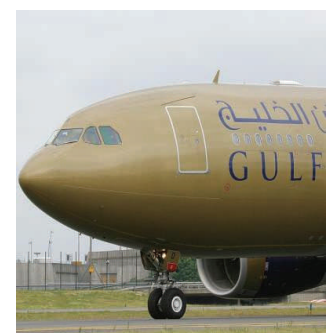
**“Aircraft accidents are tragic events, the human cost is often enormous”**

## Do Politicians Really Care About Your Safety? Cont.

→ If however, as AEI believes, the vast majority would prefer to see fewer accidents then we must fully investigate what went wrong. This involves promoting an open culture approach where aviation professionals can speak without fear of prosecution in order for experts to be able to

determine exactly what went wrong. Remove the fear of litigation and we will move one step nearer to an accident free industry. This will allow for the real goal of accident investigation, i.e. prevention, to be met. The benefits will be higher safety standards, less

accidents and less human tragedy. AEI therefore urges politicians and regulators the world over to ensure their legislation fully supports the principles of ICAO Annex 13. Only then will we all be able to truly benefit from fewer accidents.



**Gulf Air A330**

# 2009 AEI ANNUAL CONGRESS NEWS VARNA, BULGARIA 23.09.09-27.09.09



Асоциация на авиационните инженери в България  
ASSOCIATION OF AVIATION ENGINEERS BULGARIA  
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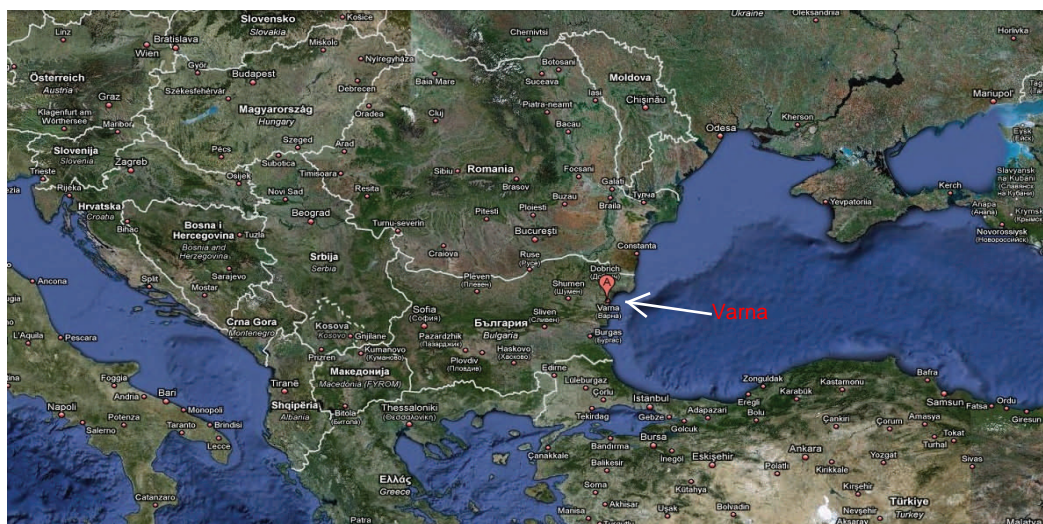
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The 37th AEI Annual Congress will this year kindly be hosted by the Bulgarian Association of Aviation Engineers. Congress will be from 23rd September till 27th September 2009 and held in the beautiful city of Varna.

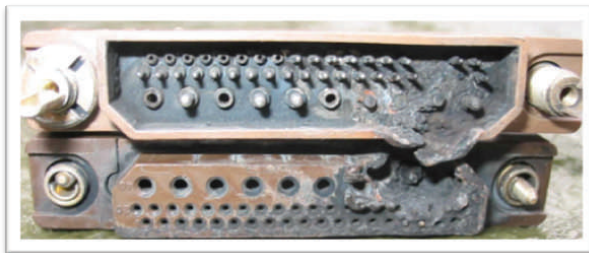
Further news and the congress programme will be announced shortly.



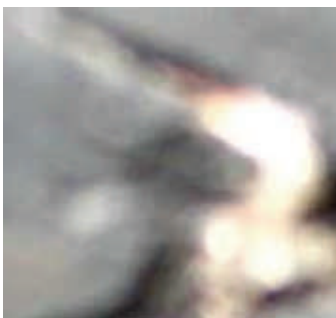


The picture in the last newsletter showed the damage than can be caused by short circuited fuel pump. Thankfully the circuit breakers did their job possibly preventing a catastrophic fire from breaking out. Yet another timely reminder of the importance of prompt and proper troubleshooting. This particular aircraft continued to fly for many weeks before this problem was dealt with due to commercial pressure to meet the flight schedule.

This also raises questions about how seriously Regulators take their responsibility of approving nominated post holders? Was the reluctance to ground the aircraft stupidity or ignorance? I'm sure you will all have your own opinion.



### What is it?

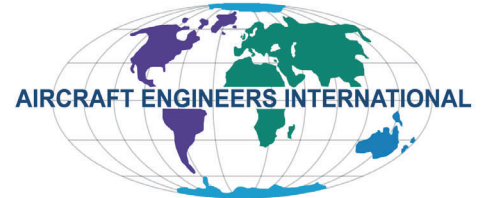


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## Aircraft Engineers International

We Keep Them Flying Safely

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The AEI newsletter is non political, straight talking and deals directly with safety issues

We keep them flying safely!

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