



News Extra

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Editor: Donald K Smith, I. ENG, FRAeS

IFA gains membership on ICAO AIRP



We are very pleased to announce that the ICAO president of the Air Navigation Commission has approved our nomination to have membership on the ICAO AIRP (Airworthiness Panel).

Executive Director John Saull commented - 'This is great news, IFA have supported the work of the ICAO AIRP for many years, now we will have a direct technical input to this important international standards work'.

The next meeting is being held in Tokyo during November 2004 and an IFA representative will be attending.

Getting It Right: Preventing Maintenance Error

The Royal Aeronautical Society Airworthiness and Maintenance Group chaired by John Saull, organised a one day Conference at the RAeS HQ in London on 7 October 2004 addressing the above title. The conference was well attended and covered a range of subjects from both the civil and military fields of aircraft maintenance engineering error management practices.

The keynote address covered the perspective of a JAR 145 Post Holder by an airline technical director, followed by a paper dealing with Safety Management and Changing Practices from the CAA UK. The Army, the Royal Navy and the Royal Air Force each presented papers covering the work on MoD joint approaches to the Convergence of Engineering Regulations, Human Factors and 'A "Just Culture" not a "No Blame" one', across all the military aircraft maintenance activity. A Regional Airline view on methods for preventing maintenance error and a CAA UK presentation on the relationship between aircraft design and the subsequent maintenance tasking, completed the civil operator and civil authority range of subjects.

The conference concluded with an aviation lawyers dissertation on Corporate Responsibility for Airworthiness followed by a effective interactive discussion session facilitated by David King, Deputy Chief Inspector of the UK Air Accidents Investigation Branch, under the title Accident and Incident Causal Factors – How Can Industry Improve?

This was an interesting and useful conference covering both civil and military aspects of a significant aviation safety subject. IFA has an electronic copie of the presentations made to the conference. Copies may also be obtained from the RAeS Conference Department.

Andrew McClymont – IFA VP Europe

WELCOME TO NEW MEMBERS

It is great to be able to welcome so many new members and we look forward to finding out more about them in the next edition of the IFA News Magazine.

Corporate Members

Philippine Airlines

Kuwait Aircraft Engineers & Pilots Association

Spirit Airlines

Australian Licenced Aircraft Engineers Association

Kawasaki Heavy Industries Ltd

Rubybird Aviation Japan Co Ltd

Associate Members

Mr Nikulin

Retirement of IFA members

On behalf of everyone involved at IFA we wish the following members all the best in their retirement and thank them for their support over the past years.

Mr Mike Spencer - Rolls-Royce Plc

Mr Frank Price - Federal Express

Mr Max Stevens - CAA New Zealand

Mr Mike Thompson - Cranfield University

Sir Peter Masefield

It is with great sadness that we report that due to illness Sir Peter has had to resign as an IFA Trustee. As can be seen from the following list, Sir Peter has always been a strong supporter of IFA and has contributed greatly to the organisation.

IFA President

1980 - 1983

IFA Patron

1982 - 1992

Trustee

1987 - 2004

Honorary Member

1992 - 1994

Although not so active in recent years, his comments and support will be greatly missed.

International Financial Facility for Aviation Safety (IFFAS)

IFA has received a letter from the Chairman of the Governing Body of IFFAS, Mr Jules Kneepkens and the Secretary General, ICAO Mr Taieb Cherif for us to pass on through our membership for two reasons. Firstly, we are all encouraged to contact the Secretary of IFFAS in order to determine the manner in which we could be of assistance in making the skies safer by supporting IFFAS. One way would be through a financial contribution, but you may consider other ways in which your government or organisation may be able to assist IFFAS. Secondly, it may be that your organisation or Government has a need for financial assistance, do you have a project that need funding, could IFFAS help?

The following extracts from the letter give an overview of how and why IFFAS was set up.

'As you are aware, aviation safety requires constant attention at both national and international levels. The objective of ICAO's Global Aviation Safety Plan (GASP) and many national safety policies is to reduce the number of accidents and fatalities irrespective of the volume of air traffic, placing emphasis on regions where these numbers remain high. In practice, it has been found that some States do not themselves have sufficient financial resources to comply with the international safety standards.

An ICAO study recognised and demonstrated that there exists a need to finance safety-related projects in certain areas of the world. However, there was no funding mechanism within the existing aviation system to provide finances as required. Following an initiative of a number of states, IFFAS was established and became operation in 2003. The objective of IFFAS is to finance safety-related projects to correct deficiencies primarily identified through the Universal Safety Oversight Audit Programme (USOAP), for which States cannot otherwise provide or obtain necessary financial resources. The Facility depends on voluntary contributions by Contracting States and their parties that have an interest in raising the level of aviation safety.'

If you would like more information on any aspect of IFFAS please contact the IFFAS Secretary, Mr Jean-Claude Bugnet on jcbugnet@icao.int Tel +1 514 954 8053 Fax +1 514 954 6744 or view their website on www.icao.int/iffas

FAA Appointment

Dr Bill Jonson has been appointed as Chief Scientific Technical Adviser, FAA Flight Standards. His responsibilities include the development of Human Factors initiatives.

Bill has over 30 years applied research and development experience with a focus on human performance in maintenance and repair of complex systems. He has conducted research and development in training, job aiding, safety and additional human factors in a variety of domains. His research has concentrated on every day solutions that affect human behaviour and performance.

Human Factors Aviation Training Conference

A Human Factors training conference was held at Bentley priory (Home of Fighter Command during WW2) on 4/5 Nov 2004. A large number of MRO approved companies have already established HF training schemes, but there are many who have not yet started to meet the requirement EASA Part 145a 30(e) (ref Annex 2 of the European Commission Regulation (EC) No 2042-2003) which requires compliance by 28th September 2006.

The requirement in summary - 'all the approved company staff are competent in Human Factors' The additional means of Compliance (AMC) expands the requirements and The Guidance material (GM) states the syllabus.

The conference proceedings can be found on website: www.raes-hfg.com with a link to [/xmhfrtraining.htm](http://xmhfrtraining.htm).

There were over 100 attendees from all sectors of the maintenance industry including some from European organisations and it was a valuable networking opportunity, apart from the excellent papers given.

IFA Comment: IFA believe it is essential that the subject of 'Continuing Airworthiness' its procedures and responsibilities is fully understood by all staff involved in the maintenance activity in conjunction with Human Factors training. IFA have issued a document on this subject: it is posted on the IFA website www.ifairworthy.org

FAA Beef Up Maintenance Oversight

The FAA is increasing efforts to study airline maintenance mistakes and find ways to prevent them, The Charlotte Observer reported on Thursday. Such errors have been blamed for contributing to the crashes of commuter planes in Charlotte, N.C., and Cape Cod, Mass., last year. Two new inspectors who specialize in maintenance "human factors" have been hired by the FAA, the Observer said. Bill Johnson and Jay Hines will study how human factors such as fatigue and poor communication among mechanics can cause maintenance mistakes. Former NTSB member John Goglia told the Observer he is encouraged by the FAA's effort, but there is a long way to go to achieve results. The NTSB issued its probable cause report on the Cape Cod crash in August and found the elevator trim system had been mis-rigged. The safety board came to a similar conclusion in its report on the Charlotte crash, issued in June. The aircraft in both cases was a Beech 1900D. Two pilots died in the Cape Cod crash, and the Charlotte accident killed all 21 on board. From 1994 to 2003, maintenance problems contributed to 42 percent of fatal airline accidents in the United States, excluding the Sept. 11 terrorist attacks, according to a study by the Observer. That was up from 16 percent the previous decade.

'Every Day' available on DVD

Due to recent increase in demand of our Human Factors training programme, we have decided to produce the existing video on a DVD. This will be available as a region free copy. The existing PAL and NTSC videos are also available. We have taken the opportunity to re-package the video into a more practical, smaller style case.

The price remains at

\$190.00 or £120.00 for non members

\$96.00 or £60.00 for members.

Multiple orders can be negotiated.

For more information please view the website on www.ifairworthy.org or contact the secretariat on sec@ifairworthy.org.



Aircraft Wiring Incidents Persist in Aging Systems

The UK Air Accidents Investigate Branch (AAIB) citing several recent accidents and incidents involving electrical arching and damaged aircraft wiring, has recommended that the U.S. Federal Aviation Administration (FAA) and the European Aviation Safety Agency (EASA) accelerate the distribution of guidance material for development of electrical systems standard wiring practices manuals.

'Aging(-related) and maintenance-related wiring incidents continue to occur despite, generally, an enhanced awareness of the problems associated with aircraft wiring systems,' AAIB said in its *Overview: Incidents Resulting From Damage to Electrical Wiring*. The overview was published along with AAIB reports on four incidents involving wiring problems that occurred between Nov. 8, 2002, and July 30, 2003.

"All these incidents show how prone electrical wiring is to damage occurring over time or being introduced during maintenance or modification action," the overview said.

A full copy of the report was published in the June 2004 AAIB Bulletin, further details are available in the FSF Aviation Mechanics Bulletin Sep-Oct 2004 edition.

IATA Reports 20.4% First-Half International Passenger Growth

The International Air Transport Association (IATA) reported results for the first six months of 2004 indicate increases of 20.4% over 2003 in international passenger traffic and 13.0% in cargo. This growth outstrips the capacity expansion of 13.2%, resulting in a half-year passenger load factor of 73.0%. For June 2004, heightened capacity control resulted in a load factor of 75.6%. "If current growth trends prevail, and barring any unforeseen event," said IATA, "we could end the year with double digit growth, surpassing our March expectation of 7.5% for the year." Compared with 2000, the last "normal" year for the industry, half-year traffic results are more

Change at the Head of CJAA

As per 1 November 2004, Andre Auer, 56, from Switzerland, will take over as Chief Executive. Former Director General of the Swiss Civil Aviation Authority, Mr Auer has also served as President of the European Civil Aviation Conference (ECAC) from 1997 to 2000, as Vice President of EUROCONTROL and as a Member of the Board of JAA. The main task for Mr Auer will be to ensure a safe and efficient transition of the JAA tasks to the European Aviation Safety Agency (EASA) while taking care of the needs of the non EASA JAA Member states.

ARSA Newsletter Available

The latest issue of the hotline is available by linking to:

www.arsa.org/beyond/hotlinepdf.html

Retirement from the JAA of Klaus Koplín, Chief Executive

Klaus Koplín, who after 36 years in civil aviation administration, 24 years active involvement in JAA and 10 years as Secretary General/Chief Executive of JAA is retiring at the end of October, 2004.

Klaus has been instrumental in carrying forward and implementing the agreements made under the Cyprus Arrangements regarding the co-ordination of airworthiness activities within Europe and in promoting a close liaison with the FAA and other international Airworthiness Authorities.

At his recent retirement party at Hoofddorp, a large group of his colleagues, from many parts of the international aerospace community, gathered to give him, his wife and family their thanks for his past work and best wishes in their future activities. The proceedings were hosted by Andre Auer, who is replacing Klaus as Chief Executive of Central JAA, and speeches of appreciation were made by, among others, Patrick Goudou, Chief Executive of EASA, and senior representatives from ECAC, EUROCONTROL, the JAA and EASA Boards, the German Authorities, the industry and members of the JAA staff in the Netherlands.

Brian Perry (VP Technical) attended the function on behalf of the IFA executive and members and was able to pass on personally to Klaus our thanks for his assistance in the past and very best wishes for the future. We are hoping that we shall be able to maintain contact with him in any future activities with which he may be involved.

Bogus Parts Broker Gets Jail

This article was published in the September 2004 edition of Aviation Maintenance magazine (www.AviationMx.com) and was provided courtesy of Aviation Maintenance.

Tempio Pausania, Italy—Enzo Fregonese, 75 year old owner of Panaviation, an aircraft spare parts broker company located in Rome, Italy on February 26th was sentenced by the District Court of Tempio Pausania in Sardegna to serve a 15-month jail sentence for distributing unapproved aircraft parts throughout the aviation industry. The final ruling followed a three-year criminal investigation, codename “Operation Latin Phoenix,” which was conducted by the Italian state prosecutor and a special unit of Italian financial police (Guardia di Finanza). The investigation did reveal that via Panaviation and several other aircraft parts brokers, highly questionable spare parts have been distributed around the world. This is the first criminal sentence ever in an unapproved parts case in European aviation.

Two years ago an unapproved parts notification (UPN), issued by the Italian civil aviation authority ENAC alarmed the industry. During preceding raids in hangars and storage facilities the authorities seized numerous aircraft parts in questionable condition, though they were ready to be shipped to customers around the world. The investigators further found evidence of falsification of required accompanying paperwork, namely for life-limited parts as well as obviously forged JAA Form Ones and FAA 8130s.

Already back in November 2003 Enzo Fregonese pleaded guilty, but the judge rejected this plea. With this legal step Fregonese was able to save his inventory, approximately 80,000 parts and other private assets, which could have otherwise remained confiscated by the Italian government.

Soon these parts now may reappear on the market, but according to ENAC, “under strict new rules

and guidelines.” In the wake of the investigation, Italy has considerably enforced its regulations in regards to unapproved parts and parts cannibalized from old aircraft.

During the judicial session on February 26th, 2004 Fregonese voluntarily agreed to four counts of indictment.

Consequently he was sentenced for the attempt to jeopardize the safety of air transport, which is related to the Italian Penal Court Article 432. Fregonese, for example, acknowledged and pleaded guilty to having sold a fuel quantity indicator for an MD80 that was never overhauled by an authorized repair facility, as indicated by accompanying paperwork. Thereby the instrument ended up in an airplane operated by Italian regional carrier Meridiana. He further pleaded guilty to forging official airworthiness certificates (JAA Form One) for material to be installed into Fokker airplanes. The Form One originally indicated that the part belonged to Italian flag carrier Alitalia, but the Italian airline did not recognize the form, once it was made available to it by the U. S. buyer.

In January 2002 the Italian civil aviation authority ENAC alarmed the worldwide aviation industry about initial findings into the investigation. ENAC expressively declared all parts distributed by Panaviation as “suspected unapproved parts,” which makes them illegal to be installed on aircraft or be kept in stock, but only few parts were traceable and resurfaced. Investigators believe that affected parts have probably been distributed via consignment sales operation in the U. S. to operators on all continents and urged maintenance and repair facilities to cross check their inventories. Although ENAC has requested feedback upon finding any Panaviation parts, only a few

nations complied with this request. The equivalent unapproved parts notification released by the U.S. Federal Aviation Administration only five days after the Italian warning did not include the request for feedback to the Italian aviation authority.

Many operators were affected by the scheme. While producing a 52 minute TV documentary (Title: Operation Latin Phoenix, which aired first in February 2003 by German PBS station WDR and later an updated version on January 5, 2004 by SAT1) on the Italian investigation and its consequences, the producers learned that airlines such as Lufthansa, former Swissair, Crossair, AUA, SAS, Singapore, Air France, Alitalia, Air One, Finnair, and Northwest Airlines (to name just a few) were among the customers of Panaviation, and they had to check their inventories and fleets.

Nevertheless the consequences for the industry are alarming and costly: German flag carrier Lufthansa, for example, was forced to change a hydraulic connector, belonging to the thrust reverser for CF6 engines. Unfortunately for Lufthansa it could not recall where its technicians may have installed the total of five connectors it had received and that later were earmarked as suspected unapproved parts. The German civil aviation authority LBA's reaction was sharp: the suspicious part was ordered to be removed from “all engines in operation in Germany.” So Lufthansa was forced to exchange it on the 150 engines belonging to its fleet of Boeing 747 and Airbus A300/310 aircraft. Deadline was November 2003.

Italian flag carrier Alitalia was forced to remove more than 640 bearings within the landing gear assemblies of its MD fleet because of similar tracing problems and the

local carrier Air One had numerous aircraft grounded by ENAC in order to remove parts purchased from Panaviation. Among the customers listed on Panaviation's customer list are as well very renowned manufacturers, such as Airbus Industrie and repair facilities around the world. Aviation experts estimate the damage inflicted to airlines and maintenance facilities just by accomplishing inspections and specific removals may already exceed several million Euros.

But still thousands of these "suspicious parts" have not been traced yet despite great efforts by law enforcement and civil aviation authorities. The former investigators of the Italian case believe they may be still installed in numerous aircraft, flying somewhere this very moment.

Because of the high risk of sudden failure of such components the investigators refer to them as "ticking time bombs on board of planes." Panaviation has conducted its questionable business since the early 1990s, but operators and repair facilities are only required to keep their records for a period of seven years (fewer in the U.S.), thereby making it impossible to trace transactions prior to 1996, though the parts may be still in circulation or on shelves.

In the wake of the investigation it became obvious that the major obstacle for operators, maintenance facilities, and the authorities is the fact that brokers of aircraft parts do not have to be regulated or otherwise certificated or authorized. Further, the required documentation, associated with a spare part is far from being safe against manipulation and forgeries. In fact each and every five-Euro

bank note has more safety features incorporated than a JAA Form One or its equivalent, the FAA Form 8130, which makes it easy to falsify such documents with the help of scanners or simple copier machines. And finally, Europe has no specific laws governing the distribution of unapproved parts, while the U.S. introduced a specific new law in the wake of numerous unapproved parts cases throughout the late 1990s. The new regulations provide clear definitions of crimes and penalties up to a lifetime in jail for such offenses.

Some of the affected maintenance facilities such as SR Technics and Austrian AUA would strongly support the idea of regulating brokers and parts dealers with new European regulations. But such steps would require an agreement by all European member states and would only make sense if the FAA would impose similar restrictions upon the trade and distribution of aircraft components.

Last but not least, it has always been the argument of opponents to such stricter regulation that, so far, no fatal accidents associated with the use of unapproved or bogus parts have been reported. This is not true, however.

In 1993 the National Transportation Safety Board (NTSB) database contained hundreds of accidents, many of them with commercial aircraft, that would pop up if the database was searched by the category "bogus part." In 1995 the FAA asked the NTSB to delete that category. Now those accidents can be found buried within the category "maintenance-related." Such "cleaning" of databases does not address the safety issues. "Especially not," said Bernd Kopf, a

Boeing 747 pilot of the German Cockpit Association VC.

"if meanwhile criminal activities have become involved in this business and where unscrupulous minds dare to risk the lives of hundreds of innocent people boarding a plane. The traffic in unapproved parts has reached a criminal stage, because of the high profits one can make in dealing such items. As a matter of fact, it is well known by court records that meanwhile even former drug traffickers deal in aeronautical parts because they do not have to deal with junkies, but with well suited business men and make the same profits with a lower risk, in case they're caught."

In the wake of such statements and even the discovery of bogus parts within the fire-extinguishing system of Air Force One, the U.S. Congress in 2000 released a new law that redefines prison terms and penalties of up to "life in jail" for trafficking unapproved aeronautical and space vehicle parts. As of today no such or similar laws exist in any of the European states.

By Tim van Beveren

Disclaimer: Except where stated, none of the articles or other items are to be taken as expressing the opinion of the Federation.