Firstly I would like to thank John McColl Head of Airworthiness UK CAA for sponsoring my application for the IFA scholarship. Secondly I would like to thank the IFA for awarding me the 2015 Scholarship which enabled me to travel to Augsburg in Germany for the 2015 International Society of Air Safety Investigators (ISASI) annual seminar titled 'Independence does not mean isolation'

Why did I choose to attend this seminar ?

I have been a member of ISASI since 2006 after completing the 6 week accident investigation course at Cranfield University run in conjunction with the UK Air Accident Investigation Branch (AAIB). Fuelled by my new found knowledge I became engaged in the emerging world of aviation Safety Management Systems (SMS) and returned to Cranfield to embark on an MSc in Safety and Accident Investigation.

Graduation in 2010 helped me achieve a position within a large UK airline as the Engineering Safety Officer where I was able to begin to put theory into practice. From there I joined the CAA in June 2014 as an Airworthiness Surveyor. A steep learning curve ensued, you think you know the 'Regulations' and all about Airworthiness … and then you join the Regulator!

My SMS skills are not wasted at the CAA, in fact I am actively involved in further developing SMS at both industry level and within the UK CAA Airworthiness department. Be it developing safety related BowTies, or promoting new safety related regulation such as EU 376/2014 (the reporting, analysis and follow-up of occurrences in civil aviation) aviation SMS has become an addition to my everyday Airworthiness Surveyor tasks.

The seminar title 'Independence does not mean isolation' intrigued me

ICAO Annex 13 sets out the international standards and recommended practices for Aircraft Accident and Incident Investigation

CHAPTER 5. INVESTIGATION
RESPONSIBILITY OF THE STATE
CONDUCTING THE INVESTIGATION
General
5.4 The accident investigation authority shall have ***independence*** in the conduct of the investigation and have unrestricted authority over its conduct, consistent with the provisions of this Annex.

ICAO states adopt these standards to ensure the resulting investigation can be carried out in such a way as to not apportion blame

CHAPTER 3. GENERAL
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***

However, to enable the investigators to carry out their investigation to the required depth they inevitably have to come into contact with outside agencies including Operators, Manufacturers and the Regulator.

Operators need to ensure their reputation is not damaged to the extent that they may lose all custom. Manufacturers have a vested interest in ensuring any product that has been involved in a serious incident or accident can be shown to be safe and the Regulator must ensure that the product remains airworthy in order to prevent the public being put at risk.

But all of these 'outsiders' have things to bring to the 'independent investigation':

- The operator brings an insight into the organisation, policies, procedures, flight operations, engineering, ground handling and importantly records.

- The manufacturer brings an unrivalled knowledge and unlimited access to product data and systems expertise.

- The regulator holds a documented history of the initial and continued airworthiness of the product, the operator, maintenance organisations, continuing airworthiness management organisations, production companies, design organisations, ATC and the aerodromes.

The Seminar looked at all of these relationships

There were several lectures from manufacturers including Airbus, Boeing, Lockheed, and notably from Rolls Royces (RR) who's Manager of Air Safety Investigation made a very valid observation, that the playing field is changing :

- Many commercially certified products are now being used for military use adding an extra dimension to an investigation from the airworthiness perspective.

- In addition, the increasing commonality of product collaboration such as Europrop has added to the complexity of investigations. Although there is only one Type Certificate holder the investigation process can be lengthened significantly as different companies are responsible for different parts of the product.

- Manufacturers were keen to ensure that investigators understood that although the state accident investigation took priority if their product was determined to be the cause of an incident/accident it was their Chief Engineer who was responsible for the products airworthiness and that that responsibility also required (under regulation) that the manufacturer determine the root cause of the failure.

From an airworthiness point of view it was good to see that the manufacturers were focused on ensuring the continuing airworthiness of their products and that as a general rule they welcomed the independence of trained 'independent' investigators.

There were some interesting lessons learnt from the Director General Aviation Investigation Bureau (AIB) of the Kingdom of Saudi Arabia (KSA) who was tasked with developing a new 'independent' accident investigation branch in the KSA. The independence here came from divorcing the National Aviation Authority (NAA) who had until 2013 carried out all state accident investigations. It is true to say that independence does not happen overnight and evolves over a period of time by developing the correct procedures, training and a change in culture. It took 8 years from the Royal Decree No.M/44 - 2005 for the KSA AIB to become an effective 'independent' bureau. However, on their first call out in January 2014 they were met at the scene by the NAA who had taken control of the accident site. Often a change in culture is the most difficult challenge and takes the longest time to implement.

Had they become 'independent' ?

The Director General assured us that the relationship has since matured and that both parties now understand and respect each others roles and responsibilities.

As a point of note only one presentation was given by an operator during the 4 days of the seminar. AirAsia Group Chief Executive recalled his experience working with the investigation teams, manufacturers and regulators after the QZ8501 tragedy. This became a useful learning

experience and topic of conversation amongst the audience. It would have been beneficial if more operators had attended and presented their experiences during the seminar as all groups were keen to further understand the issues faced by the operators during the investigative process.

The seminar was an excellent opportunity for some to rekindle previous acquaintances and for others a chance to meet and gain a better understanding of each others 'needs' before they meet 'in the field'.

There will un-doubtedly always be a degree of friction between the state investigators, operators, manufacturers and the regulator in the wake of a tragedy. Each group has a unique part to play in helping the state investigators determine the cause of the accident. It is only right that to enable closure for the relatives and to prevent recurrence that we engage the best minds from each group.

And finally, a lecture from the FAA highlighting their latest weblink for the Safety Knowledge System, 'Lessons Learned from Transport Airplane Accidents' well worth a look as it covers all aspects of the Airplane Life Cycle (including airworthiness), Accident Threat categories and Common Accident Themes. www.lessonslearned.faa.gov