

AVIATION INCIDENT INVESTIGATION TRAINING



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THE COURSE

Airwork is offering an Aviation Incident Investigation Training Course. The course is delivered by Airwork's CAA Part 141 Training Organisation, the course runs 22-26 October, 2018 and is held at Airwork (NZ) Ltd located at Ardmore Airport. This training was developed during 2015 in response to SMS Advisory Circular 100, which details the requirement for investigators to be trained.

THE TRAINERS

Facilitated by Deborah Lawrie and Captain Robert Van Gelder

"We developed our Incident Investigation Course in 2003 which has been running in Europe twice a year until 2014. We have also delivered in-house courses in Malaysia, Latvia, Greece, Holland and New Zealand. The most recent course being for Airwork in 2015. A special course for European Air Traffic Controllers was delivered in 2012."

Both Robert and Deborah have been involved with Aircraft Incident Investigation since 1998. Deborah has held the position of Manager of Investigations for KLM Cityhopper and Jetstar Airways and is currently a Check and Training Captain with Tigerair and safety consultant. Robert is a Training Captain with Etihad Airways and is also a safety consultant.

Airwork considers that the most important aspect the course is that each element is specifically tailored for the needs of attendees. It is very interactive and has a strong emphasis on analysis and report writing.

Course	Aviation Incident Investigation Training
Date	22-26 October 2018 (Tentative)
Location	Airwork (NZ) Ltd 487 Airfield Road, Ardmore Auckland
Cost	NZD\$3,750.00 excl GST
Qualification	Certificate in Aviation Incident Investigation Training
Expressions of Interest by August 22, 2018	raya.abdulmuniem@airwork.co.nz
Please note there is a minimum attendee requirement for this course to proceed.	

WHO SHOULD ATTEND?

- Safety Managers (CAANZ - Senior Person Safety Systems)
- Investigators (CAANZ - Senior Person Occurance Investigator)
- Safety Department Staff
- Workshop Managers
- Flight Crew
- Engineers

WHY SHOULD YOU ATTEND?

- Continued aviation education
- Increase skill and qualifications
- Career development
- Business opportunities
- Alignment with NZCAA AC100
- Improved quality of investigation reports

COURSE DETAIL

Day 1	
Causes	Description of primary, contributing and root causes using case study examples. Avoidance of litigation and relationship to latent failures. Difference between cause and effect
James Reason	Identification and explanation of active and latent failures. Normalisation of deviance and the breakdown of complex systems. Case studies to illustrate the model.
Heinrich Principle	Association of risk to how often a task is performed as well as how risky it is to perform. Importance of classifying incidents and recognition that they are the pre-cursors to accidents.
Risk Analysis	Differentiation between severity and likelihood of reoccurrence. Guidelines for establishing risk levels.
Risk Analysis Workshop	Practical exercise using sample safety reports. Emphasis on seeking more information and lateral thinking.
ICAO Origin and Definitions of Accident and Incident	History of ICAO, Investigation protocol and difference between accidents and incidents.
Investigation Management	Initiation and management of an incident investigation team. Time management, data management.
Investigation Protocol	Case example of where the aftermath of an incident went seriously wrong due to lack of an adequate protocol between pilots and management
Case Study Selection	Practical exercise to establish course investigation case study
Homework (Data Collection)	

DAY 2	
Homework Discussion	
Data Collection	Identification of information that may need to be sought in order to establish the factual information section of an investigation report.
ICAO Incident Report Format and Airwork Incident Report Formats	Break-down of the ICAO report format and comparison with Airwork report formats.
ICAO Annex 13 Section 1	Discussion of each ICAO Part 1 sub section and relevance or not to the course case study
Interviewing Techniques	Common mistakes made during interviewing, categories of questions, reactions to expect, body language and how to set up an interview.
Mr Bean Exercise	Practical exercise to establish witness reliability
Interview Set	
Mr Bean Results	
Interview Exercise	Participants are given the opportunity to prepare questions and conduct interviews of some persons who were involved in the case study incident. Extensive feedback is given after this exercise.
Factual Writing	Explanation of writing factual information, how to identify the source of the information. Practical exercise to identify assumptions, analysis, lack of source, conclusions etc. Interview Exercise have been written incorrectly into the factual content.

DAY 3	
Human Factors	History of human factors and consideration of several models for use in investigation of serious events,
HFAT Exercise	Practical exercise to encourage further fact finding to identify human factor issues throughout an organisation.
Litigation	Consideration of various case studies and associated litigation issues. Importance of writing reports to avoid litigation.
Stress/Workload Human Factors	Explanation of stress and workload from the human factors perspective and identification of these issues in the case study.
Situational Awareness	
Video Exercise	Participants will be able to identify factual information that was collected, what human factor issues surfaced, which latent failures were present as described in the James Reason model and will try to identify and classify all the causes associated with the video event.
Homework Feedback	One on one feedback for homework exercise
Investigation Checklist	Class exercise to develop a 'flow chart' checklist for future reference when a serious incident occurs.

Day 4	
Helicopter Safety	
Communication	Human Factor communication aspects and identification of communication factors in the case study.
Event Causal Analysis Method	Explanation of the analysis tool and its application to the case study.
Analysis Exercise	Practical workshop using the Event Causal Analysis Tool
Fault Tree Analysis	Explanation of the analysis tool and its specific use
Threat and Error Analysis	Explanation of the analysis tool and its application to the case study.
Analysis Exercise	Practical workshop using the Threat and Error Analysis Tool
Decision Making	Human factor aspects of the decision making process and its relevance to the case study.
3rd Party Contractors	Investigation set up and management when third parties or sub-contractors are involved. Relationship between Accredited Reps and Advisors and effectiveness of recommendations
Management Interview Exercise	Interview revision and further opportunity to interview a management team member from the case study investigation.
Report Writing	Recognition of emotive words, passive and active sentences. Paragraphing, bridging and various grammatical guidelines.
Analysis Writing	Homework Exercise

DAY 5	
Bad Apple	The dangers of being retrospective, proximal, counterfactual and judgmental during an investigation [based on the theories of Sidney Dekker]
Fatigue	Human factor aspects of fatigue and relevance to the case study
Tenerife Human Factors	Human Factors analysis of the KLM / Pan Am Tenerife accident
Findings	Identification of the case study findings and how they should be recorded
Automation Surprises	Discussion of how cockpit automation is linked with human factors and investigation considerations associated with automation.
Causes + Case Study Causes	Revision of causes. Examples of well written and poorly written reports and identification of case study causes.
Recommendations + Case Study Recommendations	Aspects of recommendation formulation. Examples of well written and poorly written reports and establishment of case study recommendations.
Investigation Report Reviews	Summary of various report formats. Identification of a suitable report structure
Course Summary + Certificates	

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*Cost is \$3,750 plus GST and expressions of interest can be directed to the Training and Development Coordinator: raya.abdulmuniem@airwork.co.nz. Please submit your expressions of interest by the 22 August 2018. An advanced payment of course fees will guarantee your space on the course on a first come first served basis with a full refund in case of course cancellation. Payment details will be forwarded upon receipt of expressions of interest.