<u>RESUMÉ</u>



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1. EXECUTIVE SUMMARY

- 1.1 Career objective is to achieve excellence in education, research and delivery of contemporary best-practice safety science solutions, investigations and analyses.
- 1.2 Career highlights include development of the globally unique Bachelor of Accident Forensics degree and Masters in Accident Investigation degree with specialisations in Aviation, Road, Rail and Industrial accident investigation at CQUniversity. The programs' development included creating the first genuine multi-modal forensic investigation teaching laboratory in the world.
- 1.3 Sought after by airline Boards and other high profile aviation industry organisations to provide independent oversight of operational safety governance arrangements and performance.
- 1.4 Received prestigious awards for contribution to safety science and the safety profession in Australia.
- 1.5 Elected to lead the safety professional association, the Safety Institute of Australia, as National President for nine years.
- 1.6 Inducted by the Governor-General of the Commonwealth of Australia to lead the Australian safety profession's academic and technical safety science endeavours as Dean, College of Fellows, Safety Institute of Australia.
- 1.7 Academic appointments include Associate Professor, Head of Transport and Safety Science Courses at CQUniversity and Discipline Leader, Accident Forensics and Investigation CQUniversity. Formerly a member of the Senior Faculty, Royal Institute of Technology Stockholm, Associate Professor/Senior Research Fellow at Monash University Accident Research Centre and member of the RMIT Aviation and Aerospace Industry Review Panel.
- 1.8 Member of the Editorial Boards of two international safety science journals; Journal of Safety and Health Research and Practice and the e-journal; Safety Science Monitor.
- 1.9 Presently supervising three Doctoral candidates, two Higher Degree Research Masters candidates and five Master of Safety Science course work minor thesis students at CQUniversity. There has also been twelve project completions since 2014, and currently working with five potential Higher Degree Research students preparing expressions of interest to commence research studies at CQUniversity.
- 1.10 Sought after by the television, radio and news media in Australia and overseas for expert opinion and comment on aviation, rail and road crashes, industrial accidents and related safety science. Since 2014, over fifty interviews have resulted in rebroadcast and republication into over 200 television, radio, newspaper and online news media in Australia and overseas including translation into multiple foreign languages.

- 1.11 An award winning and experienced researcher whose airline accident prevention research has been internationally recognised for its adoption by the global industry and its delivery of significant and lasting reductions in fatal accident frequency and severity.
- 1.12 Forty papers published in peer reviewed and refereed safety related journals and seventy seven invited technical presentations at aviation safety, rail safety, road safety, OHS, accident investigation and risk management conferences in Australia and overseas.
- 1.13 Leader of several hundred major accident and serious incident investigations in aviation and other industries for Governments, airlines and other industry organisations over 40 years.
- 1.14 Previously held many appointments to government panels and industry committees and Counsels related to aviation safety, OHS, accident investigation and risk management.
- 1.15 Previously held executive safety management positions in industry over the past 40 years which has included leadership of trans-disciplinary teams of staff with qualifications and experience allied to the delivery of effective safety programs, including occupational physicians, crash investigators, lawyers, ergonomists, sociologists, forensic scientists, psychologists, engineers and safety professionals.
- 1.16 Leader of more than one hundred risk analyses and safety system development projects for government and industry over 40 years.
- 1.17 Education includes a PhD (Airline Accident and Injury Prevention project), Master of Applied Science (Fatal Aircraft Pushback Accident Prevention project), Graduate Diploma in Occupational Hazard Management, all from the University of Ballarat (now Federation University), Aviation Safety Program Management short course qualifications from the University of Southern California and Air Safety Investigation short course qualifications from the former Australian Bureau of Air Safety Investigation.
- 1.18 Presently enrolled in the Graduate Certificate in Tertiary Education having completed the Nature of Learning and Teaching unit. Previously held VET Certificate IV in Training and Assessment now requiring upgrade.

2. CAREER MISSION STATEMENT

Achieve excellence in education, research and delivery of contemporary best-practice safety science solutions, investigations and analyses. Provide strategic guidance to Boards of Directors and company Executives. Provide leadership in safety science, accident prevention and investigation education and understanding across society. Mentor industry and society to achieve continuous improvement in accident prevention, reduce injury occurrence and severity, and enhance safety standards to optimise performance and protect quality of life.

3. CAREER LANDMARKS & AWARDS

- Developed globally unique Bachelor Degree in Accident Forensics and Masters Degree in Accident Investigation with specialisations in Aviation, Road, Rail and Industrial accident investigation at Central Queensland University. The programs' development included creating the first genuine multi-modal forensic investigation teaching laboratory in the world which utilises practical accident scenes and wreckage reconstruction to give students applied learning and assessment opportunities. Appointed 2010
- Appointed (pro bono) Head of Safety for Aerospace Australia Ltd, the not for profit operator of the biennial Avalon International Airshow. Appointed in 2008. This appointment has included responsibility for safety oversight for the 2009, 2011, 2013, 2015, 2017 & 2019 Avalon International Airshows.
- Appointed (pro bono) Chairman of the Nauru Airlines Board Safety Sub-Committee, July 2018, providing independent review of corporate safety governance for the fledgling Australian certificated international airline operating a fleet of five Boeing B737-300 aircraft on low yield routes in the South Pacific.
- Appointed as Independent Member of the Board of Directors of Cobham Flight Operations and Services, the parent company of Surveillance Australia P/L which operates the Australian Border Force 'coast watch' fleet of Bombardier Dash8 aircraft. Cobham are/were also the operators of the Qantas Link Boeing B717 jet fleet, National Jet Systems BAe146 and Embraer E190 regional jet charter fleets, the prestigious UK Defence Central Helicopter Pilot Training School at RAF Shawbury UK, a fleet of Falcon 20 jet aircraft conducting air warfare readiness training for the RAF and RAN in UK and a fleet of Bell 214/414 Griffin Helicopters in search and rescue operations for a number of nations globally. Cobham also owned and operated the third largest aircraft maintenance and engineering organisation in Australia. Appointed 2006 and voluntarily stood down from the Board in 2016.
- In October 2011, Dr Dell was awarded the Harold Greenwood Thomas Award, the Safety Institute of Australia's highest award for recognition of a significant contribution to the safety profession in Australia.
- In 2002, at Government House, Canberra, Dr Dell was inducted by the Governor-General of the Commonwealth of Australia to the position of Dean, College of Fellows, Safety Institute of Australia, to lead the technical safety science and academic efforts of safety professionals in Australia.



- Elected annually by the 4000 plus members of the Safety Institute of Australia Inc. to the peak role of National President from 1996 to 2002 and again 2005 to 2007. Programs led during the 1996 to 2002 tenure delivered a retained funds surplus of over A\$1.5 million, while simultaneously moving the professional association from a part time and honorary administration to a full time paid permanent staff of management and finance professionals.
- In September 1996, in Dubai, United Arab Emirates, Dr Dell was awarded the Washington DC based Flight Safety Foundation's inaugural award for the development of engineering solutions to fatal aircraft pushback run-over accidents. Since their introduction in 1993, the solutions have become the global industry best practice standard having been adopted by many major airlines worldwide and have effectively eliminated these occurrences across the industry.



- In July 1997, Dr Dell was presented with the VIOSH Eric Wigglesworth Award for excellence in publication of a safety science research journal article in a refereed scientific journal.
- As Secretary of the Australasian Airlines Flight Safety Council in the early 1980s, successfully lobbied the Federal Government to legislate for a smoking ban on all Australian domestic regular public transport flights.

• As Chairman of the Australian Dangerous Goods Air Transport Council, in 1988 introduced Australia's first industry wide airline passenger dangerous goods awareness program which included display cabinets in all Australian airport terminals which are still visibly in use in all airports today.

4. ACADEMIC, BOARD AND PROFESSIONAL APPOINTMENTS

Present academic & professional appointments:

- Associate Professor, Head of Transport and Safety Science Courses, CQUniversity Australia responsible for academic leadership and oversight of all aspects of CQUniversity's Transport and Safety Science courses including undergraduate and postgraduate OHS, Accident Forensics and investigation courses, Post Graduate Certificates and Diplomas in OHS and accident investigation, Masters of Safety Science degrees and VET level qualifications in Rail Safety Investigation. This includes responsibility for all aspects of academic quality both in discipline-specific knowledge, skills and attributes, curriculum development and delivery, together with alignment of the learning outcomes, learning activities and assessment of the courses to ensure excellence in design, development and delivery of the courses in accordance with the requirements of the Australian Qualification Framework (AQF). Appointed 2016
- Associate Professor CQUniversity Rockhampton. Joined the University to develop and introduce the University's new undergraduate Degree in Accident Forensics and Masters Degree in Accident Investigation with specialisations in Aviation, Road, Rail and Industrial accident investigation. This work included the development of the world's first multi-modal Forensic Investigation teaching Laboratory at the University's Bundaberg Campus. Appointed 2010.
- Member of the Affiliated Senior Faculty of the Royal Institute of Technology Stockholm, Sweden, Centre for Technology and Health. Appointed 2010 until 2015.
- Member of the Editorial Board of the peer reviewed e-journal Safety Science Monitor. Appointed in 1998
- Member of the Editorial Board of the peer reviewed Journal of Safety and Health Research and Practice. Appointed 2009
- Presently supervising three Doctoral candidates, 2 Higher Degree Research Masters candidates and 5 Master of Safety Science course work minor thesis students at CQUniversity. Previously supervised and/or examined Doctoral and Masters Theses from students from CQUniversity, Swinburne University and Curtin University.

Previous appointments:

- Co-Chair of the Flight Safety Foundation, Australian Advisory Board. 2011 to 2014.
- Member of the Judges Panel for ComCare Australia's annual OHS Awards, 2010 and 2011.
- Adjunct senior lecturer in Risk Management and Accident Investigation at the University of Ballarat 2002 to 2008
- Part time Associate Professor/Senior Research Fellow appointment at Monash University Accident Research Centre 1998 to 2001.
- Foundation Member of the Aviation Safety Research Group at Monash University Accident Research Centre 1998 to 2005.
- Chairman of the Membership Committee of the Australian Society of Air Safety Investigators 1984 to 2010.
- Dean, College of Fellows, Safety Institute of Australia, Inc, 2002 to 2010. Safety Institute is the Australian professional association for safety and injury prevention personnel with over 4000 members in Australia and overseas. Dean, College of Fellows was the Academic Head of the profession.
- Member of the WorkSafe Victoria Foundations for Safety Construction Industry Forum, representing the Monash University Accident Research Centre from 1990 to 2000.
- Safety Compliance Manager, Australian Formula 1 Grand Prix, Engineering and Infrastructure Project, 2009 to 2012. This appointment has included responsibility for safety compliance for the 2010, 2011 & 2012 Australian Formula 1 Grand Prix Engineering and Infrastructure Projects.
- Chairman of the Organising Committee for the inaugural Dr Eric Wigglesworth AM Memorial Lecture, 2009.
- Member of the Australian Standards AS/NZS4360 Risk Management Standards Committee 2005 to 2011. AS/NZS4360 Risk Management Standard was the basis for risk decision-making across Australian industry and society and was called up in many Acts of Parliament at Federal and State Government level in Australia and New Zealand.
- Member of the Board of Directors of the Aviation Safety Foundation of Australia 2003 to 2009. Aviation Safety Foundation of Australia (ASFA) was an independent not for profit

organisation focused on enhancing standards of flight safety in Australia. ASFA merged with the Washington DC Based Flight Safety Foundation in June 2009.

- Member of the RMIT University, School of Aviation and Aerospace, Industry Review Board 2005 to 2009.
- Appointed in 2005 by Major Projects Victoria as part-time Safety Manager for the Australian Synchrotron Project for the synchrotron installation and commissioning phases of that cutting edge technology project. The project delivered over 1 million man hours without a lost time injury. Stood down in 2008 when the Australian Synchrotron was handed over fully operational to the permanent ongoing operating company.
- Elected President, Victoria Division, Safety Institute of Australia, 2002 to 2005
- Appointed to the Board of Directors of the Quality Society of Australia Register of Certified Auditors, February 1997 to June 1999. The predecessor to the RBQSA Auditors Certification, the role at QSA was instrumental in development of the original safety auditors certification criteria and program for Australian Industry.
- Appointed to the Board of Directors of the Australian Injury Prevention And Safety Association Inc. (IPSO Australia) 1998 to 2006.
- Appointed to the Selection Board for the Flight Safety Foundation (Washington DC) Ramp Safety Award 1998 to 2000.
- Appointed to the Victorian WorkCover Authority, OH&S Advisory Panel 1998 to 2000.
- Appointed to head the Assessment Panel of the National Safety Council of Australia Safety Auditors Register, July 1997 to Jan 1998.
- Appointed Chairman of the Ergonomics Committee of the United States of America, National Safety Council, Air Transport Executive in 1994 and 1995.
- Elected annually as Chairman of the Australian Dangerous Goods Air Transport Council 1986 to 1995
- Elected Secretary of the Australasian Airlines Flight Safety Council 1983 to 1991
- Appointed Member of the Australian Aviation Industry, Ministerial Advisory Council (AVIAC), Committee on Aviation Safety Education 1984 to 1988.

5. LEADER OF MAJOR ACCIDENT & EXPERT WITNESS INVESTIGATIONS

- <u>ISB2 Lark Glider accident near Benalla Airport January 2015</u>: Expert witness investigation report into the circumstances surrounding the crash of an ISB2 Lark glider on approach to Benalla Airport which resulted in serious permanent injuries to the glider's passenger. The investigation included analysis of the data from the aircraft's flight data recorder which proved, to the subsequent satisfaction of both the plaintiff's and defendent's Legal Counsels' in the Court case, that the pilot allowed the airspeed to decay to the point where the aircraft stalled and then the pilot seriously misjudged the subsequent off-aerodrome emergency landing. The case was subsequently settled out of Court.
- <u>Fatal Crushing Injury to Construction Worker at the New Royal Adelaide Hospital</u> <u>Construction Site 2014:</u>

Expert witness investigation report for the South Australian Coroner into the likely causation and safety systems failures which led to the fatal crushing of an elevating work platform operator during the construction of the new Adelaide Hospital. This included a half day in the Coronial Inquest Court hearings being cross-examined by four barristers separately representing the deceased, SafeWork SA and the two construction companies involved. The Coroner accepted the Report and made complimentary coronial findings calling for regulatory changes in the management and operational oversight of elevating work platforms in Australia.

- <u>Investigation of a spate of Cabin Air Quality Incidents for Cobham Aviation Services</u> <u>2013</u>: Completed a major investigation into Cabin Air Quality incidents, consequences and prevention. The enquiry reviewed over 190 reports of previous reviews, analysed the designs of modern gas turbine powered aircraft and engines, interviewed aircrew, engineering and maintenance personnel, arranged the conduct of potentially exposed personnel urine and blood chemical analyses. The study identified a range of interventions the airline is now implementing to reduce the incidence and impact of cabin air quality incidents.
- Explosion at Boodarie Iron, Port Hedland, WA, May 19, 2004: Appointed by the West Australian Government and BHP Billiton to head the independent multi-disciplinary investigation into the causes of the fatal explosion at Boodarie Iron, Port Hedland WA on May 19, 2004. The investigation team included safety systems investigators, physicists, chemists, process engineers and lawyers from United Kingdom, The Netherlands and Australia. It involved laboratory reconstruction of the explosion chemistry at TNO in the Netherlands, analysis of over 800 operations documents and interviews of over 300 personnel. The investigation into the explosion chemistry proved, for the first time globally, that an airborne cloud of iron ore fines could be initiated as a major dust explosion. The enquiry identified a very poor safety culture at Boodarie Iron, serious flaws in maintenance procedures and practices, anomalies in hazard analysis and risk assessment methods, superficial auditing methods, inadequate process knowledge, poor contractor control and gaps in the emergency response arrangements. The 300 page final report of this

major enquiry, which itself cost over \$1.5 million to conduct, was delivered within 6 months of the occurrence and its findings led to the BHP Billiton Board deciding to permanently close and dismantle the A\$10 billion plant on safety grounds.

- <u>Fall through elevated walkway during plant maintenance shutdown, October 2012.</u> Appointed to carry out a major investigation into a serious fall incident in the boiler house of a large aluminium production plant. A section of elevated flooring had been removed for maintenance access to the boiler and a worker fell through the opening after protective barriers had been removed by other workers. The investigation revealed conflicting work procedures and a dubious regime of work authorisation which allowed simultaneous conflicting work activities to take place. It also revealed a blame the victim incident response culture existed in the organisation.
- Pratt & Whitney FT8 Gas Turbine Catastrophic Engine Failure, Bell Bay, Tasmania, May 20, 2009: Appointed in 2009 by the CEO of the Tasmanian Government owned power generator AETV Power to conduct an independent investigation into the catastrophic failure of a Pratt & Whitney FT8 gas turbine engine which resulted in over \$25million in losses including total plant shutdown and complete loss of revenue for over 4 months. The investigation revealed shortcomings in plant operations knowledge and experience, gaps in the available operations data from Pratt & Whitney, operating system shortcomings in relation to engine vibration and alarm systems and a history of problematic operation of these FT8 engines which had been imported second hand from USA by a previous owner of the power station.
- <u>Fall in a High Rise Construction Site 2004</u>: Conducted an independent investigation, as "Friend of the Court" in a common law case in the Victorian Supreme Court where the plaintiff was seeking damages from a former employer due to suffering a permanent disabling back injury which occurred as a result of a fall at a Victorian high rise building construction site in 2004.
- Finger Amputated by a Saw Bench in School Workshop, Launceston, Tas, September 22, 2008: Led the independent investigation into the amputation of a student's finger in the woodworking workshop of a Launceston teaching institution. The investigation revealed shortcomings in the instruction of students in relation to machine safety, a lack of supervision of students using hazardous plant in the workshop and discrepancies in the design of the particular saw bench which was old and did not meet modern machine guarding standards.
- <u>Worker Fell Inside Chemical Digester Vessel, Tumut, NSW, July 5, 2008</u>: Appointed by the General Manager Visy Pulp and Paper to lead the independent investigation into the major accident involving a worker falling 13 metres inside the black liquor chemical digester vessel at the Tumut Kraft Pulp and Paper Mill during the annual plant maintenance shutdown. The enquiry revealed shortcomings in the control of maintenance contractors, scaffold erection and certification procedures and work permit systems.
- <u>Boeing B737 Aircraft Tow Bar Failures</u>, Brisbane, Qld, October 16, 2006: Appointed by the Qantas Airways Queensland Maintenance Superintendent to investigate a series of tow

bar shear pin failures at Brisbane Airport which in one case resulted in damage to a new Qantas Boeing B737-800 aircraft when the aircraft over-ran the tug on a down slope in taxiway Mike. The investigation revealed shortcomings in the towbar design, anomalies in the Qantas towing procedures, personnel training and procurement processes.

- <u>Airbus A330 Weathercocking Accident, Melbourne, Vic, June 30, 2004</u>: Led the independent investigation into a towing accident at Melbourne Airport in 2004 which resulted in a new Qantas Airbus A330 aircraft suffering in excess of \$500,000 damage. The investigation revealed deficiencies in the Qantas towing procedures in relation to towing in high winds, engine starting during towing operations and also highlighted the aircraft's tendency to weathercock when towing in crosswind conditions.
- <u>Runaway Train Accident Investigation, Lithgow, NSW, February 11, 2002:</u> On behalf of the NSW Government Rail Freight Corporation, led an independent investigation into a runaway diesel locomotive and derailment accident at Lithgow. The investigation involved rail infrastructure specialists, engineers, driver trainers, medical and human factors personnel. The enquiry analysed train crewing, driver training, drugs and alcohol issues and locomotive design. The investigation also looked into the impact of corporate culture and management systems. Key recommendations included improvements in driver training, human factors awareness and changes to rostering arrangements and introduction of a new drugs and alcohol program.
- <u>Collision of Locomotives 8150 and 8021 at Enfield DELEC, NSW, Feb 2, 2002:</u> On behalf of the NSW Government Rail Freight Corporation, led an independent investigation into a collision between two locomotives in the Enfield DELEC rail yard. The investigation revealed shortcomings in the shunting procedures, signage in the yard and human factors training of train crews.
- <u>Level Crossing Accident in the Cooks River Rail Freight Terminal, Mascot, NSW, July</u> <u>2002.</u> On behalf of NSW State Rail, conducted an investigation into a collision between a shunting freight train and road vehicle at an internal road level crossing at Cooks River Freight Terminal. The investigation revealed shortcomings in the storage of containers, signage, traffic management arrangements, shunting procedures and interfaces between the rail and road operators and other users of the freight terminal.
- <u>Rigging failure and crushing accident, Wivenhoe Power Station, Qld, June 5, 2002:</u> Led the independent investigation into a rigging failure and serious crush injury accident at Wivenhoe Power Station. The investigation identified safety system failures, shortcomings in maintenance procedures, poor lifting practices, inadequate work scheduling and supervision arrangements which led to a 4 tonne generator rotor pole falling on a maintenance worker.
- <u>Ash Eruption & Fire ball Accident in Yallourn Power Station, Vic, 2002</u>: Led an independent enquiry, on behalf of Silcar Maintenance Services, Power Division, into a fire ball eruption accident at Yallourn W Power Station in 2002. The team included specialist engineers, operations and safety systems personnel. The enquiry identified the sequence of events and precursor conditions leading to a 40 metre fireball eruption from an

electrostatic dust precipitator during precipitator cleaning operations that caused 1st degree burns to 50% of one worker's body and two others received 3rd degree burns. The enquiry identified flaws in plant isolation practices, maintenance tasks, hazard analysis methods, plant knowledge, systems of work, training, rostering, emergency response and recovery arrangements.

- <u>Runaway Coal Train, Illawarra, NSW, Feb 1, 2001</u>: On behalf of the NSW Government Rail Freight Corporation, led an independent investigation into a runaway 42 Wagon coal train which collided with another train unloading at the Illawara Bulk Terminal. The investigation involved rail infrastructure specialists, engineers, driver training and human factors personnel. The enquiry analysed train crewing, training, locomotive design and operation, as well as corporate culture and management systems to identify the failures which lead to the runaway. Key recommendations related to crewing pairing practices, human factors training and locomotive design.
- <u>Fatal Forklift Accident, Dandenong, Vic, December 2001:</u> On behalf of Pilkington Glass and the Australian Workers Union conducted an investigation into the organisational and plant operational factors which led to a worker being crushed when a load fell from a forklift during warehousing operations. The enquiry revealed shortcomings in the design and use of forklifts, warehousing procedures which required pedestrians to be adjacent to loaded forklifts and inadequate warehouse traffic management arrangements.
- <u>Amputations in Wood Milling Machines, Hardwood Timber, Vic, 2000:</u> Appointed by the CEO of Hardwood Timber to investigate the organisational and human factors which led to amputation accidents involving wood milling machinery at two company saw mills. The enquiry found a poor "blame the victim"safety culture at both mills, inadequate machine guarding and interlock systems and poor plant maintenance practices and procedures.
- <u>Spate of Thirty-two Runway Incursions, Sydney Airport, February 1999</u>: Appointed by the CEO Sydney Airport Corporation Ltd to lead the independent investigation of a spate of thirty two serious runway incursion incidents which occurred over an eighteen month period. In each of the incidents unauthorised vehicles, or taxying aircraft not cleared to do so, entered the active runway with real potential to conflict with aircraft cleared to arrive and depart from the runway. The investigation revealed anomalies in traffic management arrangements, personnel training and licensing, shortcomings in communications between vehicles and air traffic control, and the need for improved cooperation between the airport owner, airlines and other airport users.
- Explosion at the Esso Longford Gas Plants, Longford, Vic, September 25, 1998: Appointed by the Esso Australia Pty Ltd, Manager Longford Plants to conduct an investigation into the safety management systems and safety culture in place at the Esso Longford Gas Plants, as part of the company's recovery from the fatal gas explosion. The investigation found anomalies in the local application of the management system and its key recommendations included the need for personnel human factors training especially in critical incident onset awareness and enhanced use of operations control systems simulators.

- <u>Airline Caterer Disabling Back Injury 1998</u>: Provided specialist safety input to an independent "Friend of the Court" investigation in a common law case in the NSW Supreme Court relating to an accident where an airline catering employee suffered a serious back injury.
- <u>Airbus A300 Aircraft VH-TAA Rolled Unattended Across Filton Airport, Bristol UK, September 28, 1994</u>: Led the investigation into the accident to VH-TAA when it rolled unattended across Filton Airport and became bogged in soft ground. Although only superficial damage was caused to the aircraft in the event, the aircraft narrowly missed other parked aircraft and buildings before becoming bogged in soft earth adjacent to the active runway. Investigation revealed shortcomings in understanding of the British Aerospace (BAe) maintenance staff as to the operation of the A300 brake pressure indication system which lead to the aircraft being left unattended with no pressure in the parking brake system. In was apparent that the ground crew had also failed to follow standard procedures for the placement of wheel chocks on unattended aircraft which highlighted a shortcoming in the BAe procedures for preparing aircraft for post maintenance ferry flights.
- <u>Collision between Cessna C404 and AS350 Helicopter, Mildura, July 6, 1994:</u> Led the investigation into a collision between the Cessna C404 VH-DLF, which was taxying to the passenger terminal after landing at Mildura after dark, and the AS350B helicopter which was parked on the aircraft parking apron. The investigation revealed significant shortcomings in aerodrome lighting and taxiway guidance markings at Mildura which were below standard, and human factors issues related to the pilot's failure to follow established taxying procedures, organisational acceptance of such procedural non-compliance and an established practice of parking helicopters in locations other than designated aircraft parking positions.
- Operation of Boeing B737 VH-TAK with Asymmetric Aerodynamic Configuration <u>February 17, 1993</u>: Led the investigation into the organisational systems failures and human factors which led to operation of the aircraft over a period of 4 days in an asymmetric aerodynamic configuration. The enquiry revealed an engine cowling had been inadvertently installed on the aircraft without the necessary vortex control device fitted to it due to anomalies in Boeing's component nomenclature for the engine cowlings. The nomenclature did not distinguish between those cowlings fitted, and those not fitted, with a vortex control device. Coincidental failures of the maintenance dual inspection and certification procedures were also identified. Analysis also revealed that the lack of a vortex control device resulted in approximately five knots increase in stall speed of the wing on that side of the aircraft and would have adversely affected the flight characteristics of the aircraft as it approached stall speed. However, in the normal flight profile and speeds regime which the aircraft had been operated in during the period the device was not fitted, there were no measurable adverse aircraft control effects.
- <u>Fatal Accident to MU2 Aircraft VH-WMU, Bathhurst, NSW November 7, 1990:</u> Seconded to the Australian Bureau of Air Safety Investigation and conducted a flight profile and ground impact reconstruction of the fatal accident to the Western NSW Airlines

Mitsubishi MU2 turbo prop aircraft at Bathurst in 1990. The investigation proved the aircraft was under control and under power at the time of ground impact.

- <u>DHC6 Twin Otter Take-off Accident Dunk Island, Qld, November 18, 1988:</u> Led the investigation into the DHC6 Twin Otter loss of control on take-off accident at Dunk Island Queensland which resulted in the total constructive loss of the aircraft. Investigation revealed a range of human factors issues in relation to operation and crewing of the DHC6 aircraft including poor application of rejected take-off procedures, limitations in the DHC6 syllabus for training captain instruction and limited experience on the DHC6 by both pilots. Also a factor in the accident was the sometimes previously reported problematic directional control characteristics of the Twin Otter aircraft on initial take-off roll due to a combination of inadvertent asymmetric take-off power settings by the pilot flying, limited rudder authority at low speed and sensitive nose steering command.
- <u>Boeing B737 Decompression and Emergency Descent Incidents 1986:</u> Investigated a spate of decompression and emergency descent incidents which occurred to Australian Airlines Boeing B737 aircraft which were subsequently found to be due to the airconditioning system ram air doors motoring open in cruise due to a valve logic anomaly. Contributing to the seriousness of the outcomes were shortcomings in the warning system design which included the warning lights being located outside the normal field of view of the pilots and the airconditioning packs trip-off not being included in the master caution warning regime.. The investigation led to enhancements in the airconditioning trip-off warning system that were subsequently retrofitted to the entire Boeing B737 fleet.
- <u>Airline Aircraft Aircrew Compliment Enquiry 1986</u>: On behalf of Trans Australia Airlines (TAA) conducted an independent investigation which was presented to the Australian Industrial Relations Commission as part of the Airline Aircraft Crew Complement Enquiry. The investigation identified the differential risk, based on the occurrence of human error related incidents and accidents, in the operation of two pilots vs three technical flight crew (two pilots and a flight engineer) airline aircraft. The investigation clearly demonstrated that the safety record of two pilot aircraft was better than contemporary 3 flight crew aircraft. The Commission found in favour of the two pilot aircraft model which is still applied globally today.</u>
- <u>Fokker F27 Nosegear Collapse on Landing, Longreach, Qld, June 1, 1982:</u> Led the investigation of the nose undercarriage collapse accident which occurred to a Trans Australia Airlines Fokker F27 aircraft on landing at Longreach Queensland in 1984. The investigation revealed weaknesses in component overhaul NDT testing methods.
- <u>Fokker F27 Landing Accident, Amberley, Qld, June 9, 1982</u>: Led the investigation of the total loss accident to an Australian Airlines Fokker F27 aircraft during a crew base training flight. The investigation led to changes in the methods and procedures the airline applied to asymmetric engine operations during base training sequences for Check and Training Captain initial and refresher training.
- <u>Fatal Injury to Aircraft Despatcher, Hobart, Tas, 1980:</u> Led the investigation into the ergonomic and human factors which led to the TAA aircraft engineer being crushed

between the tow tractor he was driving and the aircraft fuselage when he jumped from the tractor as it reversed through the rotating No. 2 engine propeller of a Fokker F27 after engine start. The investigation revealed serious design flaws in the tow tractor gear selection, brake and accelerator design and configurations. The engineer had switched to the particular tractor involved in the accident only seconds before the accident and the tractor had gear selection layout reversed 180 degrees from other normal automatic transmissions such as that he had been driving until seconds before the accident. Also, it was found that the accelerator and brake were positioned so close to one another that both could easily be applied simultaneously by one foot and when the engine revved, the brakes were overwhelmed by the engine power due a combination of high engine power, the low ratio of reverse gear and an inadequate brake drum design which made the brakes ineffectual when the vehicle was operating in reverse. As a result, the driver was unable to stop the reverse motion of the tractor prior to impact with the aircraft.

• <u>Investigator In Charge of several hundred major aircraft incident investigations, 1979 to</u> <u>present</u>: including several significant air miss incidents involving high speed passenger aircraft, several emergency evacuations of full compliment of passengers and crew, multiple incidents of air traffic control failure, dangerous goods incidents including several in-flight baggage and cargo fires and many aircraft component failures including several major in-flight engine failures.

6. TELEVISION, RADIO AND NEWSPAPER INTERVIEWS

Dr Dell's Television, Radio and Newspaper interviews include:

- 1. Sydney Morning Herald, March 19 2019, <u>Pilots, experts call out push to make CASA weigh</u> <u>costs of safety</u>, published interview regarding the conflict between commercial and safety considerations potentially leading to a degradation in safety standards.
- 2. KBS World Radio (South Korea), March 14, 2019, <u>The Lion Air and Ethiopian Airlines B737</u> <u>Max 8 crashes</u>, pre-recorded interview regarding the similarities of the two crashes, the key differences in the B737 Max 8 to earlier B737 types and the justification for grounding the type.
- Australian Business, republished by Asian Correspondent, Scroll.in, and Viw Magazine, March 13 2019, <u>Flights suspended and vital questions remain after second Boeing 737 MAX 8</u> <u>crash within five months</u>, re-printed excerpts from similarly named article published in the Conversation, http://theconversation.com/flights-suspended-and-vital-questions-remain-aftersecond-boeing-737-max-8-crash-within-five-months-113272
- 4. ABC National Radio Drive program, March 12, 2019, live to air, <u>How safe is the Boeing 737</u> <u>Max 8, live to air interview_discussing the crash of the Ethiopian Airlines B737 Max 8, https://www.abc.net.au/radionational/programs/drive/how-safe-is-the-boeing-737-max-8/10893376</u>

- 5. The Australian newspaper, January 25 2019, <u>Man free to fly again despite plane violence</u>, Interview by Robyn Ironside discussing the application of the regulations relating to disruptive and violent passengers on Australian airlines.
- 6. The Morning Bulletin, November 29, 2018, <u>Uni head Calls for research into crash causes:</u> <u>Drivers can be unfairly blamed</u>, published interview regarding the need to shift from blaming drivers to systematic analysis of all contributory factors if all lessons are to be learned from crashes and effective long term corrective actions identified and implemented.
- 7. The Conversation Canada, November 5 2018, <u>Lion Air JT-610 flight recorder found</u>, <u>but more evidence needed before concluding why the plane crashed</u>, republished from similarly named article in the Australian Edition of the Conversation, https://theconversation.com/search/result?sg=c3242ecc-b4be-4984-8c3db4371a83fb1c&sp=1&sr=3&url=%2Flion-air-jt-610-flight-recorder-found-but-more-evidenceneeded-before-concluding-why-the-plane-crashed-106246
- 8. Australian Newspaper, November 1, 2018, <u>Teething Issues Up in the Air</u>. published interview by Robyn Ironside on the failure rates of new aircraft designs and technologies.
- 9. ABC News Radio, October 30 2018, <u>The investigation of the Lion Air B737 Max 8.</u> Live to air interview regarding the likely immediate priorities for the investigators and discussion of evidence in the public domain. Interview was syndicated and rebroadcast on multiple occasions on regional ABC radio stations
- ABC Television Evening News, October 29, 2018, <u>The Crash of Lion Air B737 Max 8 in</u> <u>Indonesia</u>. live television interview on the potential causation and investigation into the Lion Air B737 Max 8 crash.
- 11. ABC Television News, October 5, 2018, <u>United Airlines Low Fuel Emergency</u>, Live to air television interview discussing what preparations are made at Australian Airports for response to a significant aviation emergency with many casualties. Rebroadcast on Indonesian Television and translated and published in five foreign language newspapers in Indoneasia and USA
- 12. Australian Business, September 28 2018, <u>Lessons learned from the Essendon air crash: the</u> <u>importance of pilot checklists</u>, republished from similarly named article in the Australian Edition of the Conversation, http://www.businesses.com.au/general-business/430520-lessonslearned-from-the-essendon-air-crash-the-importance-of-pilot-checklists
- 13. The Australian Newspaper, September 26 2018, <u>Essendon crash pilot's form raises questions</u>, published interview regarding the different levels of safety afforded by sections of the aviation industry and CASA failure to follow-up on earlier non-compliance findings related to the aircraft operator.
- 14. The Adelaide Advertiser, August 25 2018, <u>Comparisons made between the investigation of a</u> death at an Adelaide construction site and that of the loss of MH370, publication of comments

made by Dell in the witness box at the South Australian Coronial Inquest into the death of Jorge Cabrillo-Riffo.

- 15. Time Magazine on-line, February 7, 2018, <u>Why Planes Could Still Vanish Into Thin Air Like</u> <u>MH370</u>, interview with Angus Whitley from Bloomberg published in Time Magazine on-line regarding the effect of global changes in tracking airliners in flight.
- 16. ABC Radio Darwin, October 24, 2017, <u>Cessna 210 Fatal Crash near Darwin October 23, 2017</u>, live to air interview regarding the priorities of the initial investigation of the crash and what the investigators would be looking for.
- 17. Cairns Post Newspaper, July 4, 2017, <u>Air Asia B777 Birdstrike, declared in-flight emergency</u> <u>and diversion to Brisbane</u>, published interview regarding the frequency and consequences of birdstrikes, especially leading to serious damage and forced landings.
- 18. ABC News 24 & ABC National, March 25, 2017, <u>Airline maintenance standards</u>, live television interview regarding airline maintenance standards as most Australian airlines are now sending aircraft overseas for major overhaul.
- 19. Weekend Australian, January 28, 2017, <u>Grumman Mallard Crash into the Swan River Perth</u>, published interview by Paige Taylor looking at possible reasons for the crash in which the aircraft entered a steep turn and appeared to stall aerodynamically with wings vertical.
- 20. Weekend Australian, November 26, 2016, <u>Possible causes of the loss of MH370</u>, published interview by Ean Higgins regarding the possibility that the Captain of MH370 hijacked his own aircraft and killed his passengers and crew, despite there being no evidence yet available to suggest that was the case.
- 21. The Independent Newspaper UK, May 13 2016, <u>Flight MH370: South Africa and Mauritius</u> <u>debris 'almost certainly' from missing Malaysia Airlines plane</u>, published interview regarding what the two pieces of wreckage might tell investigators about the cause of the loss of MH370.
- 22. New York Times & reprinted in the San Francisco Chronical, Chicago Tribune, NBC News online, Yahoo.com and ABC News online, May 12 2016, <u>Malaysia: 2 more pieces almost certainly from Flight MH370</u>, published interview regarding what the two pieces of wreckage might tell investigators about the cause of the loss of MH370.
- 23. The Independent Newspaper UK, May 12 2016, <u>Latest Washed Up Debris almost certainly</u> <u>from MH370</u>, published interview regarding what the two pieces of wreckage might tell investigators about the location of the wreckage of MH370.
- Associated Press Malaysia, May 12 2016, <u>More pieces almost certainly from MH370</u>, published interview with Eileen NG regarding the loss of MH370 and the possible location of the crash.
- 25. 4BC Radio Brisbane rebroadcast on 4GY Gold Coast, 4LG Longreach, 4MK Mackay and 4RO Rockhampton, January 15 2015, <u>How Important are the Black Box Recorders in the</u>

investigation of Air Asia flight QZ8501 crash, live to air interview regarding the investigation and importance of the recorded flight data in ascertaining what caused the crash.

- 26. ABC Radio 891 Adelaide, January 2015, <u>Crash of Air Asia flight QZ8501 and the Safety of Air Travel</u>, live to air interview on the ABC Drive program regarding the crash of the Air Asia flight safety of air travel.
- 27. Newcastle Herald, January 15, 2015, <u>Expert Casts Doubt on Air Asia Explosion Theory</u>, published interview refuting the theory that a spike in cabin differential pressure led to an explosion of the fuselage in Air Asia flight QZ8501.
- 28. Canberra Times, January 13, 2015, <u>Air Asia explosion theory 'not true'</u>, published interview to explore the validity of claims by the leader of the Indonesian search and rescue agency that the aircraft suffered an explosion due to a change in cabin pressure.
- 29. The Age Newspaper, December 30, 2014, <u>AirAsia flight QZ8501: A tale of two search sites</u>, published interview regarding the search area for missing AirAsia flight QZ8501 being expanded and comparisons with the search for the missing Malaysia Airlines flight MH370 and flight MH17 which was shot down over Ukraine.
- 30. The Sydney Morning Herald, December 31, 2014, <u>AirAsia flight QZ8501: What happened</u> <u>before the crash?</u>, published interview questioning why the pilot apparently flew the aircraft into a thunderstorm and what could have been done to avert the crash.
- 31. News Corp online, July 25, 2014, <u>Is it safe to fly in 2014</u>, published interview by Kate Schneider regarding the three aviation disasters in seven days and the total lives lost in the six months year to date was a staggering 719, well over the annual average of 517.
- 32. The New Daily, July 25, 2014, <u>Piecing together a disaster: How the MH17 mystery will be</u> solved, published interview regarding how investigators will attempt to triangulate evidence from the flight recorders, individual pieces of fuselage, a reconstruction of the aircraft and the pattern of its disintegration.
- 33. The Straits Times, July 20, 2019, <u>Making sense of the Flight MH17 tragedy</u>, published interview regarding shortcomings in the international arrangements for assessing and sharing intelligence regarding the risks to safe airline operations in known war zones.
- 34. China Daily, July 20, 2014, <u>Cockpit of MH17 found sawed in half at crash site</u>, published interview about what evidence from the crash site investigators will be looking for.
- 35. CNBC, July 19, 2014, <u>Aviation safety in spotlight after MH17 tragedy</u>, published interview regarding airlines' risk management decision-making processes and the avoidance of war zones.
- 36. The Sydney Morning Herald, republished on News.com.au, Malaysia Today, July 19, 2014, <u>MH17: what the black boxes will reveal</u>, published interview regarding what the fight recorders might suggest were the circumstances leading up to the loss of MH17.

- 37. The Sydney Morning Herald, republished by the Fairfax News Store Forensic Science, July 19 2014, <u>MH17 crash site, grim first views</u>, published interview regarding the importance of analysis of the forensic evidence in the investigation of the loss of MH17.
- 38. The Malay Mail online and republished by MForum.cari.com, crime files.net and DVI Forensics.com, July 19, 2014, <u>'Terrorists' looting MH17 crash site amid decomposing bodies</u>, published interview regarding_ protection of the crash scene and concern of evidence being stolen, tampered with or destroyed.
- 39. The Australian newspaper republished by SBS News online, Yahoo.com, News Corp online, The Telegraph UK, Bangkok Post, USA News, The Newcastle Herald newspaper, Mamamia.com.au, The Daily Telegraph, The Daily Mail UK, Luxemberg Times, Singapore.conconuts.co, The Journal Dublin, BMAG.com.au, 6PR Radio Perth on-line, ZeeNews India online and 24 other foreign language on-line news sites, July 18, 2014, <u>'It's astonishing': Expert says MH17 shouldn't have flown over Ukraine</u>, published interview regarding the failure of the airline and authorities that allowed flight MH17 to be planned and flown through a known war zone despite warnings by European and US aviation authorities to avoid the area.
- 40. ABC World Today online republished by News.com.au, July 18, 2014, <u>Sophisticated missile</u> <u>used to bring down plane</u>, published interview regarding the shooting down of MH17 and the failure of the authorities to ban flights through the area.
- 41. France 24, republished by Free Malaysia Today, July 18 2014, <u>Why were commercial planes</u> <u>still flying over Ukraine</u>, pre-recorded interview regarding the failure of the airline and authorities that allowed flight MH17 to be planned and flown through a known war zone.
- 42. The Guardian Australian Edition republished by South China Morning Post, TR Emeritus Singapore, tlfong01.com Hong Kong, The News Nigeria, India Times, Oman Observer, Malaysia Kini, IOL News South Africa, July 18 2014, <u>Many airlines have avoided Ukrainian</u> <u>airspace for months</u>, published interview regarding the failure of the airline and authorities that allowed flight MH17 to be planned and flown through a known war zone
- 43. The Morning Bulleting newspaper, July 18, 2014, <u>Audio of interview: Aviation expert says</u> <u>MH17 far from zone</u>, published_interview regarding the failure of the airline and authorities that allowed flight MH17 to be planned and flown through a known war zone despite warnings by European and US aviation authorities to avoid the area.
- 44. The New Daily, republished in the People Daily Malaysia (English Edition), mxnet.com.au, RTE Ireland, eNCA On-line and Sina Singapore, Emirates 24/7, July 18 2014, <u>Should MH17</u> <u>have been there?</u>, published interview regarding flight MH17 being planned and flown through a known war zone despite warnings by European and US aviation authorities to avoid the area.
- 45. HNGN New York republished by Naharnet Lebanon, Japan Times, The Malaysian Insider, My Sarawak.org, The Nation Sri Lanka, and Expatica.com, Korea Herald, July 18, 2014, <u>MH17</u>

<u>Crash: Why Was Malaysia Airlines Flying Over A Conflict-Zone Airspace?</u>, published interview regarding the failure of the airline and authorities that allowed flight MH17 to be planned and flown through a known war zone.

- 46. The Australian Newspaper republished in the Toronto Sun Newspaper, The Kuwait Times and in the Borneo Bulletin, July 18, 2014, <u>Aviation safety in spotlight after some airlines avoided</u> <u>Ukraine</u>, published interview regarding the folly of planning flights through known conflict zones.
- 47. The Rakyat Post Korea, republished by New Delhi Television on-line, Asia One Singapore, Nepelese Voice, Malaysia Chronicle, Samachar News India, News UK 24, July 18, 2014, <u>Australian, Korean airlines shifted Ukrainian flight routes months ago</u>, published_interview regarding the failure of the airline and authorities that allowed flight MH17 to be planned and flown through a known war zone.
- 48. Daily News (North Dakota), July 18, 2014, <u>Malaysian Airlines Under Pressure over route</u> <u>avoided by others</u>, published interview rgearding the need to rethink international arrangements for notifying airlines and closing airspace over know conflict zones.
- 49. Radio National, Canberra, April 28 2014, <u>New phase of the MH370 search</u>, Live to air interview regarding the new phase of the search for MH370 and the importance of finding the wreckage so that the lessons from the crash can be learned.
- 50. Sydney Morning Herald republished by news.abnxcess.com, April 8 2014, <u>Missing Malaysia</u> <u>Airline jet ocean debris would depend on angle, speed: experts</u>, published interview regarding the difficulties facing the searchers for MH370 and various possible wreckage distribution scenarios.
- 51. Astro Awani (Malaysia), April 8 2014, <u>MH370: One Month Later, Lessons Learnt</u>, published interview concerning what is known about the causes of the loss of MH370 despite the wreckage not being located. Discussions centred on the investigation of evidence external to the aircraft such as pilot training, information from colleagues of the crew, social media recordings showing the Captain may have had an 'open door' approach to allowing visits to the cockpit in flight.
- 52. The Rakyat Times Malaysia, March 26, 2014, <u>Not A Single Object Recovered From Missing</u> <u>MH370 Yet</u>, published interview concerning the ongoing search for MH370 and the difficulties faced by searchers involved in the international operations in the Southern Ocean.
- 53. World Press on-line republished by The Independent (Ireland), The Telegraph Herald New York, March 18 2014, <u>Search for Malaysia Airlines jet refocuses on drone scans of seafloor</u>, published interview regarding the problematic nature of the search for MH370 in the Southern Ocean.
- 54. NSNBC International, March 12 2014, <u>Air Crash Investigation: How the search for MH370 is</u> <u>run</u>, re-printed excerpts from similarly named article published in the Conversation,

https://the conversation.com/air-crash-investigation-how-the-search-for-flight-mh 370-is-run-24229

55. Sydney Morning Herald, March 12 2014, <u>Missing Malaysia Airlines Jet: Searching from space</u> <u>may help</u>, published interview regarding limitations of visual searches and the complex algorithms required to digitally search images of large sections of ocean

7. **RESEARCH PROJECTS:**

7.1 Research Higher Degree Supervision

Current:

- Principal Supervisor, (Cikara), P/T PhD candidate, *Has the 'Chain of Responsibility' legislation in Australia improved heavy vehicle driver safety?*
- Principal Supervisor, (Hutton), P/T PhD candidate, *Validation of accident analysis* tools
- Principal Supervisor, (Bogna), P/T MHlthSc candidate, Using a hazard profiling approach for developing an Occupational Health and Safety Management System in small to medium sized enterprises
- Co-Supervisor, (*Mohan*), P/T PhD candidate, *Human Factors engineering in rail signaling*
- Co-supervisor, (Cumming), P/T MHlthSci candidate, *Human Factors in Remote Train Shunting Operations*

Completed:

- Co-Supervisor, (*Crawford*) P/T PhD candidate, *Analysis of new technology adoption (rail)* 2016
- Co-Supervisor, (*Spiryagin*), F/T MHlthSc candidate, *Socio-technical analysis of rail pedestrian crossings* 2014
- Co-Supervisor, (*Noorudheen*), F/T MEng candidate, *Trackside worker protection* 2013

7.2 Coursework Masters Thesis Supervision

Current:

- Co-Supervisor, (Peckover), P/T MSafSc Coursework Master's Thesis, *Crowd Science*
- Co-supervisor (Matiyenga), P/T MSafSc Coursework Masters Thesis, *The value of Last Minute Risk Assessment Tools*
- Co-supervisor (Webb), P/T MSafSc Coursework Masters Thesis, *Heavy vehicle driver eyesight: Effect on safety of operations*

Completed:

- Principal Supervisor, (Busk) MAccInv Coursework Master's Thesis, Safety performance in Central Queensland saw mills 2015
- Principal Supervisor, (*Curtain*) MAccInv Coursework Master's Thesis, *Investigation standards in industry* 2015
- Principal Supervisor, (Summers) MAccInv Coursework Master's Thesis, Effectiveness of Investigation methods 2016
- Principal Supervisor, (*McKenzie*) MRisk Mgt, Coursework Master's Thesis, Antecedent Analytical Variance Factors in Qualitative Bowtie Risk Analysis 2016
- Co-Supervisor, (Prentice), P/T MSafSc Coursework Master's Thesis, *The impact of accident investigation in agriculture on policy* 2017
- Co-Supervisor, (Seigel), P/T MSafSc Coursework Master's Thesis, Understanding of Managers regarding investigation concepts 2017
- Co-Supervisor, (Delaney), P/T MSafSc Coursework Master's Thesis, Vision standards in the trucking industry 2018
- Co-Supervisor, (Davies), P/T MSafSc Coursework Master's Thesis, *Safety of Rail Civil Construction workers* 2018

Personal Research Projects:

- <u>International Return on Prevention Project, Central Queensland University, The</u> <u>International Social Security Agency & the German Berufsgenossenschaften, 2010/11:</u> This study was part of an international research project and involved structured group interviews of senior executives and managers from ten Australian companies. In each company representatives of their management were interviewed in a group and their consensus opinion on the costs and benefits of injury prevention interventions sought. A structured interview process was followed for the Australian interviews that was developed by collaboration with the international stakeholders to ensure compatibility when all the international results were compared. Based on the research criteria, it was revealed that Australian companies could expect benefits over 2 to 1 in return on cost of investment in accident prevent. This result was consistent with that of other countries involved in the study.
- <u>The Causes And Prevention Of Airline Baggage Handler Back Injuries: Safe Designs</u> <u>Required Where Behaviour And Administrative Solutions Have Had Limited Effect, PhD</u> <u>Thesis, University of Ballarat, 2007.</u> This study carried out over 10 years, established the magnitude of the airline baggage handlers back injury problem, identified causal factors and investigated the efficacy of preventive measures being applied across the global airline industry. Baggage handler back injury frequencies were found to be forty times higher than best practice and stacking baggage in restricted confines of narrow-body aircraft was the highest risk baggage handling task with musculoskeletal injury risks around ten times greater than deemed to be "safe" using a contemporary manual handling regulatory and compliance standards. the This study proved that of the two commercially available baggage systems widely suggested to be part of the solution, one significantly increased

risk of back injury, the other made little difference. This study also showed it was possible to engage industry stakeholders, airlines, workers, jet aircraft manufacturers, equipment manufacturers, regulators, unions and safety organisations to create pressure for improvements in a global industry.

- <u>Common Human and Organisational Factors Involved in Sixty Australian Aerial</u> <u>Agriculture Aircraft Accidents in 2004 to 2005</u>: Conducted this research project on behalf of the Aviation Safety Foundation of Australia that enquired into the common organisational and human factors causes of a spate of 60 major aerial agriculture aircraft accidents. The accidents featured either total aircraft loss, fatalities, serious injuries or major aircraft or property damage. The review involved analysis of pre-existing data from accident reports and insurance claims lodges by the aircraft owners, interview of insurance loss adjusters involved in the original investigations, and interview of a random selection of aerial agriculture pilots. The project revealed a poor safety culture in some organisations, serious shortcomings in pilot training and standards checking by comparison to aviation industry best practice, under-utilisation of flight simulation, lack of uptake of contemporary crew training methods such as LOFT, poor flight standards surveillance of some operations and failure of some pilots to follow basic airmanship precepts.
- <u>Review of the Safety Management Arrangements of the ASX200 Companies 2000 to</u> <u>2003:</u> Conducted an applied research project for the Reputation Measurement Index and Westpac Ethical Investment Funds to review and rank the safety management arrangements of the top 150 companies on the Australian stock exchange. The review utilised the methods of the previous Monash study and ranked companies on the available evidence of compliance against a wide range of safety management systems and performance criteria. The outcomes were utilised by the stakeholders to establish safety weighted ethical investment fund packages for the financial markets.
- Review of the Safety Management Practices Of Eighteen Large Victorian Companies 2002: This three year research project (1998 To 2001) was conducted on behalf of Monash University Accident Research Centre. It independently evaluated company safety systems compliance performance and then measured management and worker opinion regarding the company performance against the same criteria. The project proved that in the top and bottom 25th percentile of companies that were independently evaluated for their safety compliance performance, both managers and workers opinions aligned with that of the independent evaluation outcomes with statistical significance at 2SD. However, in the mid performing companies, those whose performance was measured between the 25th and 75th percentile, again with statistical significance at 2SD, the managers disagreed with the evaluation outcomes while the workers agreed. It was concluded, therefore, that the opinion of workers was potentially a more accurate indicator of companies companies compliance performance at any time.
- <u>Aircraft Pushback Accidents Worldwide 1964 1992: Causes and Prevention:</u> This research project conducted to satisfy the requirements for award of the Master of Applied Science Degree at University of Ballarat investigated the causal factors associated with

forty-six pushback accidents which had resulted in death or serious injury to pushback crew members. The study obtained data from the airlines and airport operators who had experienced these accidents around the world and canvassed opinion of airline safety personnel. Recommendations from the study were adopted by most major airlines globally and led to a significant reduction in pushback accident occurrence frequency. This work was formally recognised in 1996 by the Flight Safety Foundation award mentioned above.

7. LEADER OF MAJOR HAZOP STUDIES, RISK ASSESSMENTS AND AUDITS:

- <u>SMS Review of Cobham UK Flight Operations 2013</u>: Safety Management Systems Review of Cobham Engineering and Aviation Services UK Falcon 20 flight operations for the Royal Air Force and Royal Navy at Bournemouth and Teeside UK and Review of Cobham Helicopter Services pilot training operations for the UK Defense Force Central Helicopter Pilot Training School at RNAS Shawbury
- <u>Design Risk Assessment of Werribee Open Range Zoo New Werribee River Bridge 2012:</u> On behalf of Werribee Zoo, conducted a design stage risk assessment of the concept design of the Zoo's new heavy vehicle bridge over the Werribee River Gorge which included consideration of all potential risks and other safety related matters such as structural integrity, storm/flood protection, vehicle and visitor safety, OHS and animal welfare issues.
- <u>Review of United Petroleum Crib Point Petroleum Storage Terminal and Ship Loading</u> <u>Jetty Major Hazard Facility Safety Case:</u> Engaged by United Petroleum to conduct the mandatory 5 year independent review of their formal Safety Case which led to WorkSafe Victoria reissuing their Major Hazards Facility License for a further 5 years.
- <u>Independent Review of CASR 82.5 Safety Management System Development and</u> <u>Implementation, 2010:</u> Provided the system safety input to a whole of operations review of the development and implementation of the Cobham Aviation Services Australia safety management system. The review benchmarked Cobham against CASR 82.5 and industry best practice and made forty three recommendations for improvement in the airline's systems and safety performance related processes.
- <u>Design Risk Assessment of the Melbourne Zoo New Seal Exhibit, 2009</u>: On behalf of Melbourne Zoo, conducted a design stage risk assessment of the concept design of the new seal exhibit which included consideration of all personnel safety, OHS and seal welfare and animal husbandry issues.
- <u>Design HAZOP Study, Kraft Paper Mill, Pulp Mill, Power Station and Chemical Recovery</u> <u>Boiler, Tumut NSW, 2009</u>: Led the multidisciplinary team and prepared the final reports of a design stage hazard and operability (HAZOP) study for the Visy VPP10 Kraft paper mill, pulp mill, power station and chemical recovery boiler.

- <u>Air Charter Operator Operational Safety Compliance Audit 2008</u>: Conducted a regulatory compliance audit for Toll Aviation of their subcontract air charter operators, including review of Air Work Ltd's Boeing B737 freighter flight operations and maintenance.
- <u>Safety Management Organisation Review, 2008</u>: On behalf of the NSW Rail Infrastructure Corporation, conducted an independent evaluation of the safety management organisation of the Corporation's Major Infrastructure Project Division.
- <u>Design Stage Risk Analysis, Melbourne Zoo New Oran-utan Exhibit, 2007:</u> On behalf of Melbourne Zoo, conducted a design stage risk assessment of the concept design of the new oran-utan exhibit which included consideration of all personnel safety, OHS and oran-utan welfare and animal husbandry issues.
- <u>National Jet Systems Perth Operations Review 2007:</u> This study was undertaken to investigate issues and hazards associated with National Jet Systems airport and aircraft operations at Perth following safety concerns being raised by some employees. The study found that the operations at the Perth were made difficult due to congestion on the tarmac due mainly to substantial increase in number of operations due to business growth. The study recommended changes in the design of the aircraft parking bays and changes to aircraft arrival and despatch procedures.
- <u>Australian Synchrotron Installation and Commissioning HAZOP Study 2007:</u> Led the multidisciplinary team and prepared the final report of the synchrotron technology and equipment installation and commissioning stage HAZOPS for the Major Projects Victoria, Australian Synchrotron Project.
- <u>Sydney Airport Terminals Expansion Design Risk Assessment Study 2007</u>: On behalf of the Sydney Airports Corporation, led the multidisciplinary team and prepared the final report of the design, installation and commissioning stage HAZOPS for the Sydney Airport International Terminal and Domestic Terminal 2 expansion, systems and facilities up grade projects.
- <u>Risk Analysis of Night Public Events at Melbourne Zoo, 2006</u>: Conducted an independent risk analysis of the night public events conducted by the Melbourne Zoo. The review considered public safety, staff OHS and site security issues.
- <u>Checked Baggage X-ray Screening Systems Design Risk Assessment, 2005</u>: On behalf of Qantas Airways, led the multidisciplinary team which conducted the design stage risk assessments for the installation and commissioning of checked baggage screening x-ray machines and associated conveyor systems in the Melbourne, Sydney and B risbane Qantas Terminals.
- <u>Airport Operations Risk Review, Darwin Airport, 2004</u>: Led the multi disciplinary team which donducted a whole of operations risk review for Darwin Airport.
- <u>Design Stage HAZOPs Of The Parramatta Rail Link Project 26km of Two Parallel Side By</u> <u>Side Rail Tunnels And Sixteen Underground Railway Stations 2003</u>: Led the multi-

disciplinary team which conducted the suite of design stage HAZOPS of the Parramatta Rail Link's 26km of two parallel side by side rail tunnels and sixteen underground railway stations on behalf of NSW State Rail and the Parramatta Rail link Corporation.

- <u>Maintenance Operations Risk Assessment, Loy Yang B Power Station, Vic, 2003</u>: Led the multidisciplinary team and prepared the final report of a maintenance operations risk analysis for annual shutdown maintenance at Loy Yang B Power Station.
- <u>Operations Safety Risk Analysis, Yallourn W Power Station, Vic, 2003:</u> Led the multidisciplinary team and prepared the final report of a whole of operations safety systems analysis and review of the related safety training needs for Yallourn W Power Station.
- <u>Risk Assessment of Night Shunting Operations, Cooks River Master Rail Siding, NSW</u> 2002: On behalf of the NSW Rail Infrastructure Corporation conducted an assessment of the safety and environmental impacts of night shunting operations at Cooks River Master Siding.
- <u>Risk Assessment of Freight Operations, Cooks River Rail Freight Terminal, NSW, 2002</u>: Conducted a whole of operation hazard analysis and site review of the rail and road freight operations at the Cooks River Freight Terminal on behalf of NSW State Rail.
- <u>Risk Analysis of the Merger of the Rail Safety Systems of FreightCorp and National Rail</u> <u>2002</u>: On behalf of the NSW Government Rail Safety Regulator, conducted an independent risk analysis on the merger of the rail safety systems of FreightCorp and National Rail at the time of the merger of the two companies into the new entity Pacific National Rail.
- <u>Risk Assessment of All NSW Privately Owned Rail Sidings, 2002</u>: On behalf of the NSW Rail Infrastructure Corporation, led the team which conducted independent risk assessments on all privately owned rail sidings in NSW.
- <u>Risk Assessment of Operational and Safety Issues at Lithgow Locomotive Maintenance</u> <u>Facility, NSW 2001:</u> Led the multi-disciplinary team which carried out a suite of risk analyses of the operations at the Lithgow Locomotive Maintenance Centre for the NSW Rail Freight Corporation.
- <u>Operational Risk Analysis on Saturation Diving Operations off the Northwest Shelf, WA,</u> <u>2001:</u> Led the multidisciplinary team and prepared the final report of an operational risk analyses for Coflexip-Stenna on saturation diving operations in the Australian Northwest Shelf sub-sea oil and gas facilities installation and maintenance operations.
- <u>Whole of Operations Hazard Analysis, Energy-Brix Power Station and Coal Briquette</u> <u>Factory, Vic, 2000:</u> Led the multi-disciplinary team which conducted a 6 month whole of operation hazard analysis for the Energy-Brix Australia coal fired power station and coal briquette factory.

- <u>Design Stage Hazops Studies For The Blackback Gas Upgrade Project On Exxon-Mobil's</u> <u>Mackerel And Halibut Bass Straight Off-Shore Platforms, 1999</u>: Led the multidisciplinary team which conducted the suite of design stage HAZOPs studies for the Blackback gas upgrade project on Exxon-Mobil's Mackerel and Halibut Bass Straight off-shore platforms including the sub-sea well head installation and commissioning activities.
- <u>Ansett Airlines Aircraft Weight and Balance System Review, 1997:</u> On behalf of the Executive General Manager Operations of Ansett Airlines, conducted an independent review of the content and application of the Airline's computerised weight and balance system which found anomalies in the passenger and cargo load reconciliation processes in place which had caused discrepancies in the actual loads compared to the documented loads in the computerised weight and balance system.

8. AUTHOR OF SAFETY MANAGEMENT AND RELATED SYSTEMS

- In 2005, led the team which developed a chemical safety management system for Australia Post which, when submitted to ComCare as compliance evidence by Australia Post, was deemed by ComCare personnel to be 10 years ahead of any other chemical management system they had seen.
- Led the team that developed and introduced a Safety Management System, to SafetyMAP Advanced standard, for Australian Pacific Airports Corporation for all operations at Melbourne Airport, May 2003.
- Led the team that developed and introduced a Safety Management System, to SafetyMAP Advanced standard, for Pacific Brands which was subsequently rolled out at all Pacific Brands businesses across Australia, 2002.
- In 2001, developed a dangerous goods management system for Vanuatu domestic airline VanAir which addressed the airline's dangerous goods storage and handling obligations as well as its needs in relation to compliance with United Nations, International Civil Aviation Organisation, Technical Instructions for the Safe Transportation of Dangerous Goods by Air.
- Developed an Emergency Management System for Sydney Airport Corporation in 2000, that included action checklists for use by key personnel during aircraft related airport emergencies.
- Developed and facilitated the introduction of a SafetyMap Advanced standard safety management system for Qantas Flight Catering Limited, 2000
- Developed a safety management system meeting SafetyMap Advanced standard for the operation of the new Museum Victoria Carlton Gardens, 2000

- Developed and facilitated the introduction of a SafetyMap Advanced standard safety management system for Qantas Airways Melbourne Airport, 1999.
- Developed and facilitated the introduction of a SafetyMap Advanced standard safety management system for The Age Print Centre, Melbourne 2000.
- Developed and facilitated the introduction of a SafetyMap Initial standard safety management system for the 40 logging contractors of the East Gippsland Logging Syndicate, 1998.
- Developed the first formal safety management system to be introduce by Aerolineas Argentinas, Buenos Aires Argentina covering its flight and ground operations, 1997
- Led the team that developed and introduced an independently certified Safety Management System to the Maryvale Pulp and Paper Mills, the largest Pulp and Paper Mill site in Australia, 1997.
- In 1994, led the team which introduced Standard Operating Policies and Procedures in Qantas ground operations at all Qantas airports worldwide.

9. EDUCATION & TRAINING PROGRAMS DEVELOPED

- From 2010 to 2012, developed world first tertiary education programs in applied accident investigation methods at Central Queensland University. The new Master of Accident Investigation degree program with specialisations in industrial accident investigation, rail safety investigation, road safety investigation and air safety investigation, the Graduate Diploma in Accident Investigation and Bachelor of Accident Forensics degree commenced in 2012. They have already grown to have over 200 students enrolled across all the programs. As a key component of these programs, Dr Dell led the development of a multimodal transdisciplinary forensic investigation crash laboratory at Bundaberg campus.
- <u>Developed the Accident Investigation Courses for the WorkSafe WA Safetyline Institute</u> 2011 & 2012. Authored two modules in workplace accident investigation for WorkSafe WA's online, VET approved programs; BSBOHS508B Participate in the investigation of incidents published as part of their curriculum for their WHS Diploma, and; BSBWHS406A – Assist with Responding to Accidents and Incidents published as part of their curriculum for their Certificate IV in WHS. These courses have since become the basis for accident investigation education at TAFEs around Australia including being used in the present CQ TAFE WHS Diploma and Cert IV in WHS curricula.
- <u>Risk Management and Accident Analysis Course 2006</u>: Developed and delivered a competency based risk management and accident investigation program for Pacific Brands middle managers and safety advisers.

- <u>Accident Investigation Short Course 2005</u>, Competency based training module for University of Ballarat as part of the Shell Australia in-house OHS Diploma for Middle Managers.
- <u>Middle Managers Rail Safety and OHS System Training Program, FreightCorp, 2004</u>: Developed a competency based training program for FreightCorp to meet the National Competencies for Rail Safety and OHS.
- <u>Risk Management Training Program, FreightCorp, 2003</u>: Developed and delivered a competency based risk management training program meeting the intent of the new Australian Standard AS4360 Risk Management. The program was delivered to over 200 FreightCorp middle managers and supervisors.
- <u>Risk Management Training Program, Qantas Airways Airports Division, 2002</u>: Developed and delivered a competency based risk management training program meeting the intent of the new Australian Standard AS4360 Risk Management. The program was delivered to over 300 FreightCorp middle managers and supervisors.
- <u>Risk Management Training Program, CSL Limited, 2000</u>: Developed and delivered a competency based training program for CSL Limited. The program was delivered to all CSL supervisory staff and contractor personnel involved in the supervision of maintenance and plant change work.
- <u>Safety Leaders Training Program, 1999</u>: Provided system safety input to the development and delivery of the Esso Australia Safety Leaders Program. The program was delivered to over 300 Esso Australia managers and supervisors. The program was subsequently adopted by Exxon Mobil and delivered to middle management personnel at all company sites globally.
- <u>Dangerous goods by Air 1996</u>: Developed and delivered a suite of competency based training programs which were certified by the Civil Aviation Safety Authority for the training of aircrew, freight forwarders, regular shippers of dangerous goods and cargo handlers.

10. RELEVANT EMPLOYMENT HISTORY

Dec 2016 to present: Associate Professor, Head of Transport and Safety Science Courses, CQUniversity Australia

Dr Dell is responsible for academic leadership and oversight of all aspects of CQUniversity's Transport and Safety Science courses including undergraduate and postgraduate OHS, Accident Forensics and investigation courses. This includes all aspects of academic quality both in discipline-specific knowledge, skills and attributes, curriculum development and delivery, together with alignment of the learning outcomes, learning activities and assessment of the courses to ensure excellence in design, development and delivery of the courses in accordance with the requirements of the Australian Qualification Framework (AQF).

June 2010 to present: Associate Professor (Discipline Leader – Accident Investigation and Forensics), Central Queensland University

Dr Dell is responsible for the development and implementation of the University's new and world first Bachelor of Accident Forensics degree, Graduate Diploma in Accident Investigation and Master of Accident Investigation (Specialisation) with specialisations in Aviation, Road, Rail and Industrial accident investigation. The new programs development also includes the establishment of a Forensic Investigation Laboratory (Crash Lab) at Bundaberg, Queensland which will display actual accident wreckage to provide students' a "real world" practicum learning and applied assessment environment.

January 1996 to 2014: Principal, Protocol Safety Management Pty Ltd

Protocol was an international safety management consultancy and Dr Dell led Protocol's team of system safety and risk management consultants. Dr Dell has consulted in system safety, risk management, OHS, environmental management, accident investigation, human factors, quality processes and practices, emergency planning, chemical safety and dangerous goods to a range of industries including: major airlines (flight and ground operations), oil and gas production, aerodrome operations, power stations, pulp and paper mills, hospitality and catering, holiday resorts, transport (road and rail), forestry, building construction, manufacturing and heavy engineering.

Dr Dell has a client satisfaction focus while maintaining the highest possible professional ethics in program delivery.

• Analysis of traffic management arrangements and plan development for Pacific Brands Brunswick manufacturing plant, Woolworths Ltd's Derwent Park Distribution Centre and NSW State Rail Authorities cooks River Freight Terminal

September 1992 to December 1995: Manager Safety Melbourne, Qantas Airways.

Dr Dell's principle accountabilities were:

- Management & leadership of Qantas Safety Department Melbourne Office.
- Financial management and control of Safety Department Melbourne budget and resources.
- Introduction of a Quality & Safety Management System for Qantas Worldwide Airport Ground Operations.
- Provision of internal health, safety and environment consultancy advice to senior management of all Melbourne Business Units, including Aircraft Heavy Maintenance, Component Manufacture and Overhaul, Supply, Flight Catering and Food Production.

Liaison with Senior Divisional Managers, Unions and Employees to Achieve Continuous Improvement in Qantas Ground Safety Performance.

- Provision of safety performance reports to the CEO and Board Safety Committee .
- Conduct of major accident and incident investigations
- Lead operations standards appraisals, hazard analyses and safety audits.
- Develop and promulgate emergency response planning policies.
- Provide Fire Prevention and Protection Advice to Line Management.
- Monitor Best Practice Safety Standards, Related Legislation and Provide Implementation Advice.
- At Senior Level, Liaison with Government and Industry Bodies concerned with Safety.

In addition:

- Chair, Qantas Airways Corporate Ground Operations Safety Committee
- Member, Qantas Airways Dangerous Goods Committee
- Member Qantas Major Aircraft Accident Investigation Team
- Member Qantas Threat Assessment Team

1992 Senior Manager Operational Safety, Australian Airlines

Coincident with Prime Minister's announcement of the merger of Australian Airlines and Qantas, selected to take over the Senior Manager Operational Safety role for the domestic airline.

1990 - 1992 Manager Ground Operations Safety, Australian Airlines.

Principle Accountabilities:

- Management & Leadership of Ground Operations Safety Department
- Financial management and control of Safety Department budget and resources.
- Safety Management System development & facilitation of Implementation in all business units.
- Workplace operations standards appraisal and safety audit.
- Development of specific accident prevention programs
- Conduct of major accident and incident Investigations.
- Emergency Response Planning, including Airport Emergency Planning.
- Fire Prevention and Protection.
- Legislation monitoring and implementation Advice to business units
- Liaison with Government and industry bodies concerned with safety
- Production of Australian Airlines Ramp Safety Journal

In addition:

- Chair, Australian Airlines Ground Safety Committee
- Chair, Australian Airlines Dangerous Goods Committee.
- Member Major Aircraft Accident Investigation Response Team

- Member Bomb Threat Assessment Group.
- Member Red Alert (Anti-Hijack/Extortion Crisis Management) Group.

1979 to 1990: Flight Safety Adviser, Australian Airlines.

Responsible for:

- Aircraft Accident and Incident Investigation.
- Major Accident Investigation Response Team Member.
- Co-ordination of Aircraft Accident Prevention Program.
- Conduct of Operational Audits.
- Airport Emergency Management.
- Conduct Aircrew Post Accident Management Training.
- Secretary, Australian Airlines Flight Safety Committee.
- Chair, Australian Airlines Dangerous Goods Committee
- Editor of the Airline's Quarterly Safety Journal
- Author and Produce the Airline's Airport Emergency Procedure and Aviation Security Manuals
- At Management Level, Liaison with Government and Industry Bodies Affecting Safety
- Secretary of the Airline's Flight Safety Committee
- Secretary of the Airline's Operational Security Committee
- Secretary of the Airline's Threat Assessment and Anti-hijack Committee

During this tenure, Dr Dell completed the TAA Boeing B727 pilots course including engineering ground school and all flight simulator sequences.

1977 to 1979: General Aviation Pilot

1974 to 1977: Engineering Trainee, Trans Australian Airlines

11. EDUCATION

Dr Dell holds:

- Doctor of Philosophy Degree, University of Ballarat. Dr Dell's PhD Thesis reported on a 10 year longitudinal study of the effectiveness of injury prevention measures in aircraft ground operations.
- Master of Applied Science Degree, University of Ballarat 1994. Masters Thesis reported on a study into the causes and prevention of fatal airline aircraft pushback accidents.
- Graduate Diploma in Occupational Hazard Management, Ballarat University College 1986. Dissertation Topic: "Understanding the Accident Phenomenon: An Analysis of Case Studies".

- Certificate IV in Workplace Assessment and Training 2004
- Rail Safety Investigation short course, Rail Industry Safety & Standards Board 2016
- Major Accident Investigation Management Certificate, Bureau of Air Safety Investigation (now ATSB), 1986
- Advanced Accident Investigation Certificate, Bureau of Air Safety Investigation, 1984
- Aviation Accident & Program Management Certificate, University of Southern California, 1980
- Private Pilot License (Aeroplanes)

12. TECHNICAL PAPERS AND PRESENTATIONS

Papers presented or published include:

- 1. Dell G. 2019, *Flights suspended and vital questions remain after second Boeing 737 MAX 8 crash within five months*, The Conversation, http://theconversation.com/flights-suspended-and-vital-questions-remain-after-second-boeing-737-max-8-crash-within-five-months-113272
- 2. Dell G. 2019, *Ethiopia Plane Crash: Second Boeing 737 Max 8 accident in 5 months leaves behind a trail of questions*, Scroll.in, https://scroll.in/article/916618/ethiopia-plane-crash-second-boeing-737-max-8-accident-in-5-months-leaves-behind-trail-of-questions
- Crawford E., Toft Y., Kift R. & Dell G. 2018, *Do End Users Really Have a Place in the Design Arena When Safe Design Is Critical?*, International Conference on Applied Human Factors and Ergonomics: Advances in Intelligent Systems and Computing, DOI: 10.1007/978-3-319-60441-1_79, July 2018
- Crawford E., Toft Y., Kift R. & Dell G. 2018, *Participatory Design for Optimizing the Implementation of New Transport Technology*, Proceedings of the 1st International Conference on Human Systems Engineering and Design (IHSED2018): Future Trends and Applications, October 25-27, 2018, CHU-Université de Reims Champagne-Ardenne, France
- Bogna F., Dell G. & Raineri A. 2018, *Incorporating internal context into the design of OHS* research and intervention programs in SMEs, Small Enterprise Research Journal Vol25, No 2, pp. 1-15.
- 6. Skegg D., **Dell G.**, Roy S. 2018, *Educating accident investigators in the 21st century*, invited presentation to the 2018 Chemica Conference, Institution of Chemical Engineers, Queenstown

- 7. **Dell G**. 2018, *Cabin Safety Investigation: The past and present must inform future needs*, Invited presentation at the Asia Pacific Aviation Training Symposium, Marina Bay, Singapore
- 8. **Dell G**. 2018, *Investigation methods and education: How the past and present must inform future needs*, Australian and New Zealand Societies of Air Safety Investigators 2018 Annual Conference, Melbourne.
- 9. Dell G. 2018, Lessons to Learn, despite another report on missing flight MH370 and still no explanation, The Conversation, https://theconversation.com/lessons-to-learn-despite-another-report-on-missing-flight-mh370-and-still-no-explanation-100764
- Crawford E., Toft Y., Kift R.L., Dell G. 2018, *Do End Users Really Have a Place in the Design Arena When Safe Design Is Critical?* In: Stanton N. (eds) Advances in Human Aspects of Transportation. AHFE 2017. Advances in Intelligent Systems and Computing, vol 597. pp 825-833, Springer, Cham, DOI10.1007/978-3-319-60441-1_79
- Dell G. 2017, A Case of Spurious Investigation Conclusions and Misinformation, Australian and New Zealand Societies of Air Safety Investigators 2017 Annual Conference, Wellington.
- 12. **Dell G**. 2017, *45 Years since Robens...and not much has changed*, plenary presentation at the Safety Institute of Australia 2017 Visions Conference, Toowoomba.
- 13. **Dell G.** 2017, *The need for investigation legislation revision*, Aviation Law Association of Australia and New Zealand, 2017 Annual Convention, Auckland.
- Dell G. 2017, *Essendon air crash: What investigators will be looking for*, The Conversation, https://theconversation.com/essendon-air-crash-what-will-the-investigators-be-looking-for-73058
- 15. Dell G. 2017, *Contemporary Investigation: The tools and methods used will drive the outcomes you get!*, presentation at the Aviation Rescue Fire Service Training Retreat, 2017 Avalon International Air Show, Geelong.
- 16. **Dell G**. 2017, *Some notable investigations*, presentation at the Aviation Rescue Fire Service Training Retreat, 2017 Avalon International Air Show, Geelong.
- 17. **Dell G**. & Toft Y. 2016, *Accidents at Epidemic Proportions*, Presentation at the 2016 Rail Industry Safety and Standards Board Derailment Forum, Sydney
- Dell G. 2016, Aerotoxic Syndrome: A Serious Health and Flight Safety Concern, Ron Chippindale Memorial Lecture, Australian and New Zealand Societies of Air Safety Investigators 2016 Annual Conference, Brisbane.
- 19. Dell G. 2016, *Two years on since flight MH370 disappeared and the search has found nothing: what now?*, The Conversation, https://theconversation.com/two-years-on-since-flight-mh370-disappeared-and-the-search-has-found-nothing-what-now-55698

- 20. **Dell G.** 2016, *Cabin Air Quality: A serious health and aviation safety issue*, Presentation at the 2016 CQUniversity Future Paradigms in Transport & Safety Science Annual Conference, Rockhampton.
- 21. Skegg D & **Dell G.** 2016, *The problem with compliance*, plenary presentation at the Safety Institute of Australia 2016 Visions Conference, Cairns
- 22. Dell G. 2015, *Answers needed from the flight recorders of Air Asia flight QZ8501*, The Conversation, https://theconversation.com/answers-needed-from-the-flight-recorders-of-air-asia-flight-qz8501-36201
- 23. **Dell G**. 2015, *Accidents at Epidemic Proportions: The Need for a Paradigm Shift*, plenary presentation at the 2015 Safety Institute of Australia Visions Conference, Gladstone.
- 24. **Dell G**. 2015, *Contemporary investigation: The Tools and Methods you use will drive what you look for,* plenary presentation at the 2015 Safety Institute of Australia Visions Conference, Gladstone.
- 25. **Dell G**. 2015, *What can we learn from any wreckage from missing flight MH370*, The Conversation, https://theconversation.com/what-can-we-learn-from-any-wreckage-from-missing-flight-mh370-45489
- 26. **Dell G**. 2015, *Does Training and Education deliver a better safety outcome than a prosecution*, Keynote presentation to the 35th Annual Convention of the Aviation Law Association of Australia and New Zealand, Cairns.
- 27. **Dell G**. 2014, *After flight MH370 is found, what happens next?*, The Conversation, https://theconversation.com/after-flight-mh370-is-found-what-happens-next-24637
- 28. Wullems C., Dell G. & Toft Y. 2014, Improving the Railway's Understanding of Accident Causation Through an Integrated Approach to Human Factors Analysis and Technical Safety Data Recording, Proceedings of the 5th International Conference on Applied Human Factors and Ergonomics AHFE 2014, Kraków, Poland 19-23 July 2014
- 29. **Dell G**. 2014, *Not the real ping so what now for missing flight MH370?*, The Conversation, https://theconversation.com/not-the-real-ping-so-what-now-for-missing-flight-mh370-27323
- 30. **Dell G**. 2014, **Air** *crash investigation: how the search for flight MH370 is run*, The Conversation, https://theconversation.com/air-crash-investigation-how-the-search-for-flight-mh370-is-run-24229
- Dell G. 2014, Would real-time tracking have helped missing flight MH370?, The Conversation, https://theconversation.com/would-real-time-tracking-have-helped-missingflight-mh370-26213

- 32. **Dell G**. 2014, *The System Safety Lessons from Aviation (& Elsewhere)*, Keynote Address to the 360° Incident & Risk Management Conference, Marcus Evans Australia, Melbourne
- 33. **Dell G**. 2014, *Damage to the cockpit gives a clue to loss of flight MH17*, The Conversation, https://theconversation.com/damage-to-the-cockpit-gives-a-clue-to-loss-of-flight-mh17-31513
- 34. Dell G. 2014, Why was Malaysia Airlines flight MH17 flying over Ukraine?, The Conversation, https://theconversation.com/why-was-malaysia-airlines-flight-mh17-flyingover-ukraine-29372
- 35. **Dell G**. 2014, *Confirming debris is of MH370 will start a new phase of the search*, The Conversation, https://theconversation.com/confirming-debris-is-of-mh370-will-start-a-new-phase-of-the-search-24761
- 36. Wullems C., Toft Y. & **Dell G**. 2013. *Improving level crossing safety through enhanced data recording and reporting: the CRC for rail innovation's baseline rail level crossing video project*. Journal of Rail and Rapid Transit, 227(5),554-559.
- 37. Wullems C., Toft Y. & Dell G. 2013. An innovative information gathering and data analysis platform for railway level crossing safety data. In N. Dadashi, A. Scott, J. Wilson & A. Mills (Eds.), Rail Human Factors: Supporting Reliability, Safety and Cost Reduction. London: Taylor & Francis.
- 38. Noorudheen N., McClanahan M., Toft Y. & Dell G. (2013), Keeping track workers safe: a socio-technical analysis of emerging systems and technology, Journal of Rail and Rapid Transit, vol. 227, 5: pp. 517-528
- 39. Noorudheen N., McClanahan M., Toft Y. & Dell G. (2013), Socio-Technical Analysis of Technology to Improve Track Worker Safety, Conference Paper, 10th World Congress on Railway Research, Sydney, November 2013
- Spiryagina M., Toft Y. & Dell G. 2013, *Improvement of safety management for pedestrian level crossings*, World Congress on Railway Research 2013, Sydney, Australia, 25th - 28th November 2013.
- Dell G. 2013, *Risk management and society's accident, injury and illness epidemic: A tragic dichotomy*, Keynote Address at the Gippsland Safety Group 2013 Annual Symposium, Traralgon.
- 42. **Dell G.** 2012, *There Are No New Accidents: The Need for Improved Investigations*, Keynote presentation to the inaugural Victorian Eminent Speaker conference, Melbourne University Graduate House, March 2012
- 43. Toft Y., Dell G., Klockner K. & Hutton A. 2012, *Models of Causation-Safety*. In HaSPA (Health and Safety Professionals Alliance), Core Body of Knowledge for Generalist OHS Professionals. Tullamarine, VIC. Safety Institute of Australia

- 44. Toft, Y. & Dell, G. 2012 Socio-technical systems: creating designs 'fit' for people!, Safety in Action, Sydney (Invited speaker)
- 45. Toft, Y. & **Dell, G.** 2011 *Evidence-based professional practice for optimal socio-technical systems safety*, Expert Speaker Program, SIA Professional Development program (Tasmania division).
- 46. Dell G. & Toft Y. 2011, Safety Science, Human Factors and Accident Forensics, Keynote Address to the Safety Institute of Australia, Tasmanian Division Annual Seminar, Hobart, October 2011
- 47. **Dell G.** & Toft Y. 2011, *Safety Science, Human Factors and Accident Forensics*, presentation to the Gladstone Area Industry Network Seminar, Gladstone, September 2011.
- 48. Dell G. & Toft Y. 2011, *The Need for Improved Accident Investigation Education and Research*, Editorial, Safety Science Monitor, Vol 15, Issue 3, http://ssmon.chb.kth.se/vol15/issue3/editorial.pdf, July 2011
- 49. **Dell G.** 2011, *The Need for System Safety*, Keynote Address to the Australian Universities Safety Association annual Conference, Brisbane, July 2011
- 50. **Dell G.** 2010, *There are No New Accidents*, Keynote Address to the Royal Australian Navy Fleet Air Arm Annual Safety Stand Down, HMAS Albatross, Nowra, November 2010
- 51. Dell G. 2010, Measuring the Effects of Prevention: Issues for Contemporary Reporting, Presentation to the National Congress of Self Insurers Annual Conference, Adelaide, November 2010
- 52. **Dell G.** 2010, *There are No New Accidents, Just New People Involved*, Presentation to the Self Insurers Association of South Australia Annual Conference, Adelaide, July 2010
- 53. Dell G. 2010, Safety Management Systems: Pitfalls and Lessons, Presentation to the Australian and New Zealand Societies of Air Safety Investigation Joint Annual Seminar, Canberra, June 2010
- 54. **Dell G.** 2009, *OHS Due Diligence*, Presentation to the Australian Dental Prosthesis Association Seminar, Melbourne, April 2009
- 55. Dell G. 2008, Accident Prevention In Health Care: System Safety Pitfalls Common To All Industries, Keynote Address to the Tasmanian State Health Conference, Hobart, Tasmanian Dept of Health, December 2008
- 56. **Dell G.** 2008, *Room For Improvement In OHS*, Presentation to the 4th Australian Workers Compensation Summit, Sydney, November 2008
- 57. **Dell G.** 2008, **System Safety The Future Need**, Keynote Presentation to the Comcare National Conference, Canberra, October 2008.

- 58. Lawson-Smith G., Dell G., Rechnitzer G., Amies J., Williams G., Ruschena L. & Sherriff B. 2008, *Improving Safety Management in Australia's Bus Industry*, Submission to the National Transport Commission, June 2008, https://www.researchgate.net/publication/242668468_Improving_Safety_Management_in_Au stralia's_Bus_Industry
- 59. **Dell G.** 2008, *The Future Science Of Safety*, Presentation to Sydney Safety Conference, Safety Institute of Australia, Sydney, October 2008
- 60. **Dell G.** 2008, *Common Pitfalls in Risk Assessment*, Presentation to the 2008 Safety Forum, Cobham Flight Operations and Services Australia, Adelaide, October 2008
- 61. **Dell G.** 2008, **System Safety The Future Need**, Presentation to the WA Safety Conference, Safety Institute of Australia, Perth, August 2008
- 62. **Dell G.** 2008, **A Way of Life**, Presentation to the NSW High School Year 12 Careers Conference, Tumut, June 2008
- 63. Larsson T., Mather E., and **Dell G.** 2007, *To Influence Corporate OH&S performance through the financial market*, International Journal of Risk Assessment and Management Vol 7, No. 2 pp263-271,
- 64. Dell G. 2007, The Causes And Prevention Of Baggage Handler Back Injuries, Virgin Blue Airlines 2007 Safer Workplace Seminar, Brisbane, December 2007
- 65. Dell G. 2007, "Aerial Agriculture Accidents 2002 to 2005: The Human Factors and System Safety Lessons, in Multimodal Safety Management and Human Factors, p113-130, Ashgate, Sydney
- 66. **Dell G.** 2007, *Effective Safety Management: Safe Design, Human Factors & Culture*, presentation to the Human Factors in Transport Conference, Melbourne, August 2007
- 67. **Dell G.** 2007, *Measuring Baggage Handler Injury Risk: A Triangulation of Methods*, Presentation to the Human Factors and Ergonomics Society of Australasia, Victorian Annual Conference, Melbourne
- 68. **Dell G.** 2007, *Safety & Environment Compliance And Resourcing Needs*, Presentation at the NSW Railcorp Management Conference", Sydney
- 69. Dell G. 2007, *Effective Safety Management: Safe Design, Human Factors & Culture*, presentation to the Queensland Safety Conference 2007, Safety Institute of Australia, Brisbane
- 70. **Dell G.** 2007, *Safety Culture: Methods & Techniques for Successful Investigation*, Safety in Action Conference 2007, Safety Institute of Australia, Melbourne, March 2007

- 71. Lenné M., Ashby K., Regan M., & Dell G. 2007, *Incorporating the analysis of human error into investigation methods for aviation insurers*, Australian Aviation Psychology Association Annual Convention, Sydney
- 72. **Dell G.** 2006, *Understanding Risk Management*, Presentation to the Pilot Proficiency Program, Aviation Safety Foundation of Australia, Albury.
- 73. Dell G. 2006, Order is Better than Chaos but Safety Management Systems No Panacea, 2006 Annual Conference of the Australian & New Zealand Societies of Air Safety Investigators, Melbourne
- 74. **Dell G.** 2006, *The Need for Improved Investigation Skills in Industry*, presentation to Safety in Action 2006 Conference, Safety Institute of Australia, Melbourne.
- 75. Dell G. 2006, *Aerial Agriculture Accidents 2002 to 2005: The Human Factors and System Safety Lessons*, Swinburne University Multimodal Symposium on Safety Management and Human Factors, Melbourne
- 76. **Dell G.** 2005, *Due Diligence in Aviation Safety Management*, ATTOPS Conference, Brisbane Convention Centre, Brisbane
- 77. Dell G. 2005, *Management Due Diligence: The Role of Operators and Chief Pilots*, Key Note Address, Aerial Agriculture Association of Australia, 2005 Convention, Gold Coast,
- 78. **Dell G.** 2005, *The Effect of Culture on Effective Risk Management*, Presentation to the Safety In Action 2005 Conference, Safety Institute of Australia, Melbourne
- 79. **Dell G.** 2004, *Systems Safety: The Cutting Edge*, Keynote Address at KBR/Esso Australia, Contractor Safety Conference, Hastings.
- 80. Dell G. & Carter B. 2004, Forklift Safety: An Analysis of Forklift Related Injuries in VIC, QLD & SA, Presentation to the Safety In Action 2004 Conference, Safety Institute of Australia, Melbourne
- 81. **Dell G**. 2003, *Forklift Safety: Intervention Overdue*, Presentation to the Freight Solutions 2003 Conference, Freight Council of Australia, Sydney
- 82. **Dell G.** 2003, *Safety Investigation in Industry: The lessons from Aviation*, Safety In Australia Journal, Vol 25 No. 2, Safety Institute of Australia, Melbourne.
- 83. **Dell G.** 2003, *Due Diligence: Implications For Safety Management*, Keynote Address at the Air Traffic Control Managers Annual Conference, Air Services Australia, Melbourne
- 84. **Dell G.** 2002, *Safety Management: Lessons From Industry & Challenges For The Future*, Defence: Serious About Safety Conference, Department of Defence, Canberra

- 85. **Dell G.** 2002, *Safety Management: Where-to For Success In Future*, Presentation to the 2002 OH&S Conference, Monash University, Melbourne.
- 86. Dell G. 2002, Larsson T, Dell S, Rechnitzer G & Clayton A 2002, An Investigation of Safety Management Practices in Eighteen Victorian Companies, Monograph, Monash University Accident Research Centre, Melbourne.
- 87. **Dell G.** 2001, *Is Safety Management an Oxymoron*, presentation to the Safety In Action 2001 Conference, Safety Institute of Australia, Melbourne
- 88. **Dell G.** 2001, *Managing Safety and Risk Into the Future: The Lessons from Industry*, presentation to the NavSafe 01 Conference, Royal Australian Navy, Canberra.
- 89. Dell G. 2001, *The Role Of The Engineer in The Contemporary Safety Management System*, presentation to the Safety In Action 2001 Conference, Safety Institute of Australia, Melbourne.
- 90. Dell G., Dell S. & McWilliams G. 2001, Contemporary Risk Assessment Activity in Industry: The Impact on Worker Injury Exposure, presentation to the Safety In Action 2001 Conference, Safety Institute of Australia, Melbourne
- 91. Dell G. 1999, *Safe Place vs Safe Person: A Dichotomy, or is it?*, Safety Science Monitor Vol 3, <u>http://ssmon.chb.kth.se/vol3/index.php</u>
- 92. Dell G. 1998, Survey of Airline Baggage Handlers Suggests Methods to Prevent Back Injuries, Airport Operations Journal, November 1998 Issue, Flight Safety Foundation, Washington 1998.
- 93. **Dell G**. 1998, *Airline Baggage Handler Back Injuries: A Survey of Baggage Handler Opinion on Causes and Prevention*, Presentation to National Safety Council of America, Air Transport Executive Conference, Seattle.
- 94. **Dell G**. 1998, *Safe Place vs Safe Person: A Dichotomy, or is it?*, Presentation to Safety In Action Conference, Melbourne Convention Centre, Melbourne.
- 95. Dell G. 1998, *Dangerous Goods by Air: The Need to Address the Problem at it's Source*, Presentation to Safety in Action Conference, Safety Institute of Australia, Melbourne.
- 96. **Dell G.** 1998, *Occupational Health and Safety for Senior Managers*, Presentation at the Australian Paper Management Conference, Traralgon.
- 97. Dell G. 1997, A Need for Safety Management Systems, Presentation to the Changes to Workplace Safety and Worker's Compensation Seminar, Current Affairs Study Centre, Melbourne.
- 98. Dell G. 1997, *The Causes and Prevention of Baggage Handler Back Injuries: A Survey of Airline Safety Professionals*, Safety Science Monitor Journal (Internet), Edition 3,

- 99. **Dell G**. 1997, *Dangerous Goods by Air*, Safety In Australia Journal, Vol 20 No.1, Safety Institute of Australia, Melbourne.
- 100. **Dell G.**, *ValuJet DC9 Accident in Florida will Test the International Safety Agencies*, Safety In Australia Journal, Vol 20 No. 1, Safety Institute of Australia, Melbourne.
- 101. **Dell G.**, 1997, *From Vision to Performance Improvement*, a Presentation to the 1997 Annual Seminar, Victorian Institute of Occupational Health and Safety, University of Ballarat, Ballarat.
- 102. Dell G. 1997, *Occupational Health and Safety For Managers: Liability and Due Diligence*, presentation to Amcor Ltd Senior Management, Melbourne.
- 103. Dell G. & Ojczyk U. 1996, Aircraft Pushback Accidents: The Myth of Carelessness and Common Sense Dispelled, Safety In Australia Journal, Vol 19 No. 1, Safety Institute of Australia, Melbourne.
- 104. **Dell G.** 1996, *Baggage Handler Back Injuries*, Presentation to the National Safety Council of America, International Air Transport Executive Conference, Calgary.
- 105. **Dell G.** 1996, *Composite Management Systems: The Solution For The Future*, presentation at the Safety Convention, Safety Institute of Australia, Canberra.
- 106. **Dell G.** 1995, *Dangerous Goods by Air: The Need for a Change of Emphasis in Future*, Presentation to the National Safety Council of America, International Air Transport Executive Conference, San Antonio, Texas.
- 107. Dell G. 1994, Back Injuries on the Ramp: Our Prevention Obligations, Presentation to the Australasian Airlines Ground Safety Council /Air Terminal Services (Fiji) Ramp Safety Workshop, Nadi, Fiji.
- 108. **Dell G. 1994, Dangerous Goods by Air: A Key Flight Safety Issue,** Presentation to the International Cargo Handling Co-ordination Association Conference, Sydney.
- 109. Dell G. 1994, Air Transport of Dangerous Goods: The Australian Experience, Presentation to Orient Airlines Association/International Air Transport Association Joint Dangerous Goods Seminar, Hong Kong.
- 110. **Dell G.** 1994, *Pushback Accidents Reviewed to Identify Causes and Prevention*, Airport Operations Journal, Vol 20 Nos 3 & 4, Flight Safety Foundation, Washington.
- 111. **Dell G.** 1994, *Airline Baggage Handler Back Injuries: Our Prevention Obligations*, Presentation to the National Safety Council of America, International Air Transport Executive Conference, Memphis Tennessee.

- 112. Dell G. 1994, Aircraft Pushback Accidents Worldwide 1964-1992: Causes and Prevention, Presentation to the National Safety Council of America, International Air Transport Executive Conference, San Francisco California.
- 113. Dell G. 1993, Dangerous Goods Management Systems: The Need for a Shift of Focus, Presentation at the Chartered Institute of Transport In Australia Inc." Safeskies" Conference, Canberra.
- 114. **Dell G.** 1991, *Keynote Address*, to the Australian Dangerous Goods Public Awareness Campaign Launch, AstroJet Centre, Melbourne Airport, Melbourne.
- 115. **Dell G.** 1991, *Post Aircraft Accident: Police/Airline Co-operation*, Presentation at Victoria Police Displan Seminar, Melbourne.
- 116. **Dell G.** 1990, *Aircraft Accident Emergency Handling*, Safety Digest for Flight Attendants, Issue 4, January 1990, Australian Airlines, Melbourne.
- 117. **Dell G.** 1986, *Airline Accident and Incident Investigation*, Presentation at Australian Bureau of Air Safety Investigation, Annual Conference, Canberra.

14. MEMBERSHIPS

Chartered Fellow, Safety Institute of Australia, Ltd Life Member, Safety Institute of Australia, Ltd Member, Australian Society of Air Safety Investigators, Inc Member, International Society of Air Safety Investigators, Inc Foundation Member, Flight Safety Foundation, Inc

15. PROFESSIONAL REFEREES

- Mr Peter Nottage, President & CEO Cobham Aviation Services 08 8154 7000
- Professor Tore Larsson, Royal Institute of Technology, Stockholm, 0011 46 87904821
- Associate Professor Yvonne Toft, Head of Transport, Emergency and Safety Science Department, School of Health, Medical and Applied Sciences, CQUniversity 0439 186 825
- Dr George Rechnitzer, Former Director DV Experts, 0418 998 158
- Mr David Skegg, Former President of the Safety Institute of Australia 0418 374 305
- Professor Dennis Else, Former Chairman, National OH&S Commission 0431 471 430

16. INTERESTS

• Private Flying (PPL Holder)

- Construction and operation of a full flight Boeing B737-800 Flight SimulatorHobby farming
- Golf