



Suite 6.01, Level 6
243-249 Coward Street
Mascot NSW 2010

T. +61 2 8307 7777
F. +61 2 8307 7799
E. ausalpa@aipa.org.au

28 March 2011

Standing Committee on Infrastructure and Communications
PO Box 6021
Parliament House
CANBERRA ACT 2600

Email: ic.reps@aph.gov.au

Dear Sir/Madam

Re: Cabin Crew Ratios – Submission by the Australian Airline Pilots' Association

A third study conducted by Cranfield University looked at the influence of cabin crew on passenger evacuation during an emergency using both competitive and cooperative protocols. The FAA and the CAA jointly commissioned this study. The results showed that both the performance and number of cabin crewmembers significantly influenced evacuation rates and passenger behaviour. (*NTSB/SS-001 PB2000-917002, Emergency Evacuation of Commercial Airplanes*).

The justification for changing from a cabin crew ratio of 1:36 to a ratio of 1:50 is based, by admission of the Civil Aviation Safety Authority (CASA), on the concept of "World's Best Practice". What this term means is not explained. There is some mention of manufacturer's minimum numbers but no evidence to link the two. There is no documentation to suggest that transition to the new ratio actually enhances aviation safety and therefore "World's Best Practice" cannot be in relation to safety outcomes.

The quote from the NTSB Investigation would suggest that increasing numbers would enhance safety outcomes and therefore reducing numbers must result in a deterioration of safety outcomes. The only conclusion then is that "World's Best Practice" in this context relates to "World's Accepted Practice" and is for commercial cost reduction and not safety.

There is a multitude of examples where passengers have acted contrary to instructions and, in the absence of cabin crew supervision, either inappropriately opened exits or failed to open exits during an evacuation. The following is a sample of such incidents:

“The Safety Board examined passenger performance in exit rows for the six cases for which the Board received information on the overwing exit operation. In these six cases, 42 passengers were seated in exit rows. Responses on the questionnaires indicate that the first task with which exit row passengers had difficulties was the decision to open the exit. In two cases, passengers opened overwing exits that should have remained closed. In one of those cases (case 16), an APU torched and passengers began to scream, “Fire.” The aft flight attendant reported that she instructed passengers to remain seated, yet passengers still opened the exit. In the other case (case 19), the flight crew ordered an evacuation using only the forward exits; however, the exit row passengers opened the overwing exits. In neither case had the flight crew lowered the flaps for safe egress off the wing, and in one of these cases, a child sustained a broken arm jumping off the wing.

The second task for which problems occurred for exit row passengers was assessing conditions outside of the exit. In one case, a passenger opened an overwing exit and smoke began billowing into the cabin (case 45). The passenger then had to jump through fire to get away from the airplane. Although his traveling companion was also able to safely egress using this route, the other two passengers who used this exit received severe burns.”

“While the flight attendant was opening the exit, two passengers decided to open the L2 door. When the passengers finally opened the door, they noticed the slide had failed to deploy.”

“The flight crew commanded an evacuation using only the forward exits. Passengers in the exit row opened their overwing exits. Both Type III exit hatches were found inside the airplane blocking the exit rows.”
(NTSB/SS-00/01, PB2000-917002, Emergency Evacuation of Commercial Airplanes)

There is a certain sense of security, possibly false, in Australia due to the excellent safety record enjoyed. There has not been, in recent times, a critical situation which has called for emergency evacuation on the ground during an aircraft accident involving fire. The calls for reduction in cabin crew numbers do not take into account the complexity of the evacuation task and implications of inappropriate actions. The proposal would leave, and currently on some aircraft does leave, a situation where floor level exits would be operated by passengers.

The following is an extract from a Flight Attendant Job Task List provided to the CASA Cabin Crew Ratio Project Team. It shows that it is not simply a matter of moving to a door and opening it.

- “14.8 Perform assigned duties following impact
- 14.8.1 Coordinate with other crewmembers (C), (D), (V).
- 14.8.2 Open seat belts
- 14.8.3 Assess conditions (V), (D)
- 14.8.4 Activate emergency lights
- 14.8.5 Initiate evacuation using communication protocols and noting that decision may be made not to evacuate
- 14.8.6 Activate evacuation signal
- 14.8.7 Shout commands to passengers (e.g. “Open seat belts” “Come this way”) (Gc), (C), (Da)
- 14.8.8 Release restraint strap (if appropriate)
- 14.8.9 Conduct evacuation at floor level exits (V), (D)
 - 14.8.9.1 Apply forces necessary to open door in emergency mode and under possible adverse conditions
 - 14.8.9.2 Take appropriate precautions for door hazard conditions
 - 14.8.9.3 Hold onto assist handle
 - 14.8.9.4 Open the exit in the armed mode
 - 14.8.9.5 Use manual operation if pneumatic operations fail
 - 14.8.9.6 Secure the exit in the fully open position
 - 14.8.9.7 Pull the manual inflation handle(s) and verify deployment, inflation (e.g. ramp, slide)
 - 14.8.9.8 (In the case of stairs, ensure they are positioned for evacuation)
 - 14.8.9.9 Maintain appropriate protective body and hand positions
 - 14.8.9.10 Use evacuation signal {could be evacuation alarm, chime signal or other}
 - 14.8.9.11 Shout door commands to passengers (e.g. “Come this way” “Jump”)
 - 14.8.9.12 Use passenger flow management control
 - 14.8.9.12.1 Direct passengers to most useable doors
 - 14.8.9.13 Give commands to helpers
- 14.8.10 Conduct evacuation at over wing exit (V), (D), (Wd)
 - 14.8.10.1 Go to exit (if part of assigned duties)
 - 14.8.10.2 Remove hatch
 - 14.8.10.3 Dispose of hatch in approved manner
 - 14.8.10.4 Maintain appropriate protective body and hand positions
 - 14.8.10.5 Give commands to passengers on how to egress through exit (i.e. leg, body, leg)
 - 14.8.10.6 Control passenger flow at over wing area
 - 14.8.10.7 Use escape ropes (if aircraft so equipped)
 - 14.8.10.8 Ensure evacuation of passengers needing assistance
 - 14.8.10.9 Shout commands to helpers at the bottom of the slides (if aircraft so equipped)
 - 14.8.10.10 Remove emergency equipment (if part of carrier procedure)”

To assume that untrained passengers would be capable of reacting in the same way as well trained and practiced cabin crew members and in achieving the same results in an emergency situation is, in our opinion, an error with potentially fatal results.

The issue of fatigue was discussed by the CASA Cabin Crew Ratio Project Team at a meeting on 14 July 2009. The Minutes show that it was agreed by the Team Leader "...that an amendment in the ratio from 1:36 to 1:50 may indeed result in an increase in fatigue risk and that operators will be expected to address this and other operational risks via their SRMP to ensure the safety of operations is not compromised." As there are no current legislated flight and duty time limits for cabin crew this was a direct shifting of the responsibility from CASA to the operators, a perceived deficiency within the safety system. This deficiency was noted in the ICAO Audit of Australia from 18-28 February 2008.

"Australia has not established regulations to limit flight time and flight duty periods as well as to provide for adequate rest periods for cabin crew."

CASA agreed with the Audit findings and commented that "presently, duty and rest periods are only subject to workplace agreements and State based legislation in relation to OH&S." It is an unfortunate fact that several of the workplace agreements in place are inadequate in this regard as they provide little protection from fatigue inducing duties.

Recommendations were made and a timetable determined in Audit Finding OPS/04. The timetable required:

"Option of FRMS or prescriptive rule set developed by 31 December 2009" and "amendments introduced over a two year transition period with ongoing monitoring and post implementation review by 31 December 2010."

To date there are no limitations either prescriptive or FRMS based in place and no indication of an intent to introduce such.

The issue of security is one which seems to have been bypassed in the decision regarding a change of cabin crew ratio. All of the justification to date has been centred on the ability to evacuate the aircraft in the required time as determined by the manufacturer or the state. There is no indication of the effect of a reduction in cabin crew numbers on the security of the aircraft or on the handling of an inflight security incident. Australia has already experienced a serious incident on 29 May 2003 in which the crew members were attacked and their continued operating capacity reduced.

A comment by the Minister subsequent to the incident was that:

"We are at world's best practice. It may well very be that there are lessons to learn out of this for Australian aviation and international aviation". If there's

anything good to be drawn out of this very unfortunate episode it is that the safety of the aircraft and the people on it were secured."

The cabin crew members constitute the last line of defence against attacks on the flight deck and safety of the aircraft. Anything which reduces their capacity to overwhelm an attack must be resisted at all levels.

As the safety voice of Australian pilots, AusALPA believes that there has to be a more holistic approach taken to the question of cabin crew ratios. It must be determined by all the relevant factors - evacuation capability requirement of the manufacturer, the human factors effects of fatigue on crews as well as the implications on aircraft security. Until a safety study has proven that there is no reduction in standards of safety, security and crew fatigue experienced under the present ratio through transfer to the proposed ratio, this Association cannot support a change to a Cabin Crew ratio of 1:50.

Yours sincerely,

Captain John MacDonald
President

Tel:
Fax:
Email: