

7 September 2000

## **MINISTER OF LABOUR**

### **REVIEW OF THE HEALTH AND SAFETY IN EMPLOYMENT ACT 1992: LEGISLATIVE COVERAGE OF OCCUPATIONAL HEALTH AND SAFETY OF AIRCREW**

#### **Purpose**

1. The purpose of this paper is to make recommendations regarding legislative coverage of the occupational health and safety of aircrew. This project is being undertaken as part of the Health and Safety in Employment Act Review Project (refer 00/004518).

#### **Problem Definition**

2. No New Zealand legislation provides specific coverage of the occupational health and safety of aircrew (domestic or international) while on board an aircraft. The Labour Party stated in its October 1999 Occupational Safety and Health Policy that “the Health and Safety in Employment legislation will be extended to cover international aircrews.”<sup>1</sup> This paper scopes options for extending legislation to cover occupational health and safety for both domestic and international aircrews.

#### **Background**

3. The principal objective of the Health and Safety in Employment Act 1992 (HSE Act) is to prevent harm to employees at work. To do this, it imposes duties on employers, employees, principals and others, and promotes excellent health and safety management by employers.
4. The HSE Act expressly excludes aircrew when they are working on board an aircraft. Section 2(3) of the HSE Act states that while any member of the crew of an aircraft is on board the aircraft, the Act shall have effect as if the person is not an employee, contractor or self-employed, and as if the person is not in a place of work. “Crew”, defined in section 2(1) of the HSE Act, include an aircraft’s pilot in command, but not any employees who solely maintain, load or unload the aircraft while not in flight.

---

<sup>1</sup> The Alliance Party policy is silent on this issue.

5. The Civil Aviation Act 1990 (CA Act) focuses on aviation (flight) safety, with the Civil Aviation Authority's (CAA) key role being "to undertake activities which promote safety in civil aviation" (section 72b). Because the Act is concerned with flight safety it does not have specific provisions relating to the occupational health and safety of employees.
6. At the time the HSE Act was being developed, the Government concluded that the CA Act was a more appropriate means of addressing the health and safety of aircrew. The reasoning for this position was that:
  - the CA Act already required aviation operators to develop safety management systems;
  - applying the HSE Act to aircrew would mean that aviation operators would have to comply with two sets of legislation seeking to achieve the same general results; and
  - there could be practical difficulties for OSH in administering the HSE Act with respect to international flights.
7. The history of the debate on the legislative coverage of aircrew is contained in Appendix 1.

## **Discussion**

8. Consultation has been undertaken on a number of occasions to canvas the views of employers and employees, and their representatives. The primary argument for change, supported by employees and their representatives, is that, at present, New Zealand aircrew do not have the same legislative coverage as other employees in relation to workplace health and safety. Neither the CA Act nor the International Civil Aviation Organisation (ICAO) conventions provide protection for employees or place responsibilities on employers that are equivalent to those in the HSE Act.
9. Employers and employer representatives believe change is not necessary. The Employers and Manufacturers Association (Northern) argue that an actual need has not been identified: for example, by a history of aircrew injuries through unmitigated hazards that are not addressed by airline companies. A number of airlines referred to their excellent safety records as reason to need no legislative amendment. Further, the major airlines submit that their agreement to comply with the spirit of the HSE Act in 1994 should be adequate.
10. The employers' position has been criticised by flight attendants' unions (the Pegasus Association and the Flight Attendants and Related Services Association) who have accused airlines of paying lip-service to health and safety and adopting only selected portions of the HSE Act. In addition, the arguments by employers that airlines have good safety records and do not need HSE Act coverage could be made by any industry with a low injury record.
11. Census data show that there were approximately 3000 New Zealanders working as aircrew in New Zealand in 1996. A number of known occupational safety and health issues affect aircrew at work on board an aircraft. They include: turbulence, exposure to radiation, high frequency vibration, noise, circadian dysrhythmia (waking and sleeping outside usual body patterns), passenger violence, and frequent

pressure and temperature changes. Statistics on work-related fatal injuries to aircrew, accident insurance claims rates and research results on the occupational health of aircrew are in Appendix 2.

12. There is evidence that aircrew, in particular pilots, have a higher than average level of fatalities and work related injury insurance claims. Aircrew may also be exposed to hazards at work that affect their health. Regardless of these risks, “the basic issue is that ... aircrew do not have the same rights as other employees in New Zealand, and that their employers do not have the same responsibilities as other employers.”<sup>2</sup> The objective of legislative change would be to provide aircrew with similar protections and rights to work in a safe and healthy environment as provided to other employees under the HSE Act.

## Options

13. Coverage of aircrew can be achieved through either of two legislative options:
  - Option 1: Amend the Health and Safety in Employment Act to include coverage of aircrew
  - Option 2: Amend the Civil Aviation Act to include occupational health and safety provisions.
14. These options will be considered against the following criteria:
  - Compliance costs: imposes the least compliance costs on business
  - Comprehensive coverage of all work situations
  - Clearly defined responsibilities: creates the clearest boundaries between enforcement agencies
  - Improved hazard identification and control
  - Improved internal communication on health and safety
  - Greater promotion of health and safety training and information provision
  - Impact on victims: produces the best outcomes for victims

### *Option 1: Amending the Health and Safety in Employment Act 1992*

15. The removal of the exclusion of aircrew from coverage by the HSE Act could be achieved by relatively straightforward amendments to the Act. This amended arrangement would align New Zealand legislation with that in the United Kingdom and Canada. In the United Kingdom, the Health and Safety Executive (HSE) and the Civil Aviation Authority (CAA) work together, with industry and others, to make sure that provisions for safety are compatible and complete, as far as is possible. Canada’s seven provincial governments oversee most occupational health and safety matters, but workplaces under federal (Government of Canada) jurisdiction, including airlines and airports, are covered by the Federal Canada Labour Code 1992 which includes occupational safety and health provisions. Crews of ships and aircraft have the same coverage as other employees, but are subject to certain procedural differences and limitations regarding the right for workers to refuse dangerous work (section 128).

---

<sup>2</sup> *Government Response to the Inquiry into the Administration of Occupational Safety and Health Policy*, 1996, p65.

16. If the aircrew exclusion were removed, a number of operational implications would have to be worked through. They relate to:
- international applicability
  - in-flight inspections
  - expertise in aircraft safety
  - compliance issues
  - warranting of CAA auditors

#### International applicability

17. The Civil Aviation Act applies to:
- a) Every person, aircraft, aerodrome, aeronautical product, air service, and aviation related service, in New Zealand
  - b) Every New Zealand registered aircraft whether within or outside New Zealand
  - c) Every holder of an aviation document while outside New Zealand and exercising or purporting to exercise privileges accorded by that document
  - d) Every foreign registered aircraft operating in New Zealand.<sup>3</sup>
18. The HSE Act applies to persons in New Zealand (section 6, Crimes Act 1961). New Zealand includes the territorial sea (the 12 nautical mile zone), defined in the Territorial Sea, Contiguous Zone and Exclusive Economic Zone Act 1977. By virtue of common law and as recognised in the Chicago Convention (the founding document of the ICAO), every state has complete and exclusive sovereignty over the airspace above its territory.
19. It could be argued that duties of care imposed by the HSE Act would generally apply to aircrew flying both domestically and internationally even if the Act's jurisdiction was extended. For example, if noise levels are identified as a hazard while an aircraft is in New Zealand, the employer would be required to take all practicable steps to eliminate, isolate or minimise the noise, regardless of the aircraft's next destination. However, the nature of work on long haul flights is that aircrew are subject to prolonged periods of exposure to potentially hazardous conditions, such as noise, that may not be hazardous when exposure is only for limited periods of time (as on domestic flights).
20. If this option is adopted, it is recommended that jurisdiction is expressly extended to New Zealand employed aircrew working on international flights. The New Zealand Parliament can legislate for offences committed by New Zealand citizens or companies outside New Zealand. Examples of such legislation include the Civil Aviation Act, the Maritime Crimes Act 1999, and the Accident Insurance Act 1998.
21. Airline companies have queried whether international airlines visiting New Zealand would be required to comply with the HSE Act. The HSE Act would apply to international airlines in New Zealand in the same way that all other New Zealand legislation applies to those airlines.

---

<sup>3</sup> CA Act, section 4

### In-flight inspections

22. Airline companies have expressed concern that if OSH were to administer the coverage of the health and safety of aircrew, in-flight inspections may be required. The concern largely relates to the associated cost.
23. At present, HSE inspectors visit ten percent of workplaces each year. Inspections are generally targeted to high hazard industries, with a small amount of random inspection taking place each year. An inspection of a workplace is undertaken to determine compliance with the HSE Act and Regulations. This involves observation of whether hazards exist, and if so, whether there are deficiencies in the employer's hazard management system.
24. As members of the Civil Aviation system, airlines generally have systems in place that could be extended to cover health and safety of employees in flight. As these systems would apply equally to the workplace on the ground and in the air, inspectors could focus on ground activities and have reasonable confidence that in-flight hazards are controlled. If in-flight inspections or data were required, they could be undertaken in several ways including inspecting in co-operation with the CAA or placing monitoring equipment in an aircraft.

### Expertise in aircraft safety

25. The issue of expertise arises each time OSH selects a new industry to target, and is addressed in training general workplace inspectors on hazards in that particular industry. It is anticipated that some training of OSH staff may be required. As OSH would not be concerned with flight safety, the training would be limited in scope. It is likely that a memorandum of understanding with the CAA would be sufficient to ensure cooperation with regard to sharing technical expertise.

### Compliance issues

26. The primary criticism of HSE inclusion of aircrew relates to the argument that all aircraft are subject to strict regulatory provisions under the CA Act, and to comply with a second piece of legislation may create conflict. Ansett New Zealand, in a submission to OSH, commented that the elimination/isolation/minimisation regime is not practical for a New Zealand aircraft operator as modifications to aircraft and aircraft equipment are subject to the approval of foreign regulatory authorities. The Ministry of Transport has advised that any modification to a New Zealand registered aircraft must be approved by the CAA, and foreign parties (usually the manufacturer) are only involved when substantive modifications (for example, to the engine) are made. A memorandum of understanding between the CAA and OSH could outline procedures for co-operation if it is found that HSE coverage might result in aircraft modifications being considered necessary. The Ministry of Transport's view is that changes to aircraft design are very unlikely, and any changes required would most likely be in relation to operational procedures.
27. While this may be so, all airlines must comply with the HSE Act both in relation to their ground operations, and within the aircraft in relation to maintenance and service crews. This would imply that all hazards in the aircraft, while on the

ground, are currently managed according to HSE principles, although some hazards may be specific to aircrew.

28. There is also concern that the inclusion of aircrew under the HSE Act might have the potential to create industrial disruption. This argument could be made by any group to whom the HSE Act applies. There is no evidence that the HSE Act can be used in this manner.

#### Warranting of CAA auditors

29. A possible option to assist with compliance issues could be to warrant CAA auditors as inspectors under the HSE Act. Administratively, this option would be little different from the effect of amending of the CA Act to include health and safety provisions. The issues around this option are discussed under Option Two.

#### Fiscal implications

30. The CAA database indicates that there are 234 employers who own aircraft. These employers will have new duties that they will need to be informed about in relation to the coverage of aircrew and guidelines may need to be developed to assist employers with compliance. An approximate cost for this would be \$10,000. CAA statistics indicate that there are, on average, nine accidents each year where at least one person is killed or seriously injured. OSH would expect to be involved in investigations in most of these cases. It is expected that there may also be a need to involve OSH Medical Practitioners in relation to long latency illnesses. From time to time, it may be necessary to buy in technical expertise in relation to aircraft. The annual additional cost relating to investigations and purchasing technical expertise is estimated to be \$6,700.

#### *Option 2: Amending the Civil Aviation Act 1990*

31. The second option would be to incorporate Part II of the HSE Act into the CA Act. There is a precedent for this with the Maritime Transport Act 1994 (MT Act) which itself based a number of provisions on the CA Act.
32. The Civil Aviation Authority works on the basis that its purpose, in line with the function and intent of the CA Act, is to regulate for and monitor aviation safety. Section 12 of the CA Act makes it clear that employees (which would include aircrew) are to be trained and supervised so that in their work they will maintain compliance with safety standards. The CA Act has no provisions that are specific to employee safety and health, except in the context of general aviation safety. For example, Rule 61.35 (b), which is enforced by the Civil Aviation (Offences) Regulations 1997, states that a person shall not act as pilot if certain medical conditions exist. The rules regarding health are created to ensure that the aircrew member's health does not endanger the aircraft or passengers. In contrast, the HSE Act requires employers to take all practicable steps to ensure that employees' health and safety are not harmed through their work.
33. The CA Act also has the purpose of ensuring New Zealand's obligations under international aviation agreements are implemented. A search of the ICAO

resolutions in force found no conventions relating to the health and safety of employees.

### Precedence in Maritime Safety

34. The HSE exclusion of aircrew in section 2 also applies to the crew of ships. The MT Act incorporates Part II of the HSE Act, therefore giving maritime employees equivalent coverage as under the HSE Act. When the MT Act was being developed, the Government gave a clear direction that, while legislative coverage could be industry specific, the standard of cover for employees was to be no less than that in other workplaces. It was concluded that shipping was not particularly different to other workplaces, and therefore, the adaptation of the HSE provisions for mariners was the best solution.
35. The combination of the health and safety provisions and general safety management works reasonably well in practice for the Maritime Safety Authority (MSA). The MT Act provides for safety management systems for ships, the occupational safety and health of employees and environmental management. Parts of the safety management systems in the MT Act were based in the CA Act. This would suggest that the insertion of Part II of the HSE Act in the CA Act could be undertaken without undermining the intent of the CA Act. However, the MSA's responsibility for ship safety and environmental protection as well as occupational safety and health is broader than the CAA's focus, which is almost exclusively on aviation safety. The CAA's view is that it would be a much greater adjustment for them to include workplace health and safety provisions than it was for the MSA, which already administered health and welfare provisions under the Shipping and Seaman Act, which the MT Act replaced.

### International practice

36. Aviation authorities generally cover the health and safety of aircrew in Australia and the United States of America. In Australia, aircrew are covered by the Civil Aviation Safety Authority (CASA), which, in turn, requires compliance with the Occupational Health and Safety (Commonwealth Employees) Act 1991. State governments have jurisdiction over an aircraft once it is on the tarmac.
37. In the United States, the situation is less clear. Flight crews are covered by the Federal Aviation Administration (FAA) only because the Federal Occupational Safety and Health statute excludes employees who are covered by other agencies. The Occupational Safety and Health Administration would cover these employees only if the FAA chose not to exercise its authority. The extent to which the FAA provides for the occupational safety and health of personnel is debated. Critics argue that the FAA, through the Office of Aviation Medicine, pay extremely careful attention to the health and personal safety of pilots and air traffic controllers, but not to those of flight attendants.<sup>4</sup>

---

<sup>4</sup> Friend, Patricia "Why Flight Attendants need OSHA protections" in *Aviation Daily*.

### Aviation safety vs. occupational safety and health

38. The option to include health and safety coverage in the CA Act, or for the CAA to administer HSE provisions, is criticised by the CAA and employee representatives, who argue that safety within the civil aviation system and the safety and health of employees are quite separate issues. This argument has merit in that the CA Act is primarily concerned with aviation safety and the people who affect this, rather than with the effect of the work or the working environment on employees or members of the public. For example, a pilot is subject to regular medical checks to ensure that he or she is fit to be in command of an aircraft. In contrast, under the HSE Act, the aircraft (being the pilot's workplace) would be assessed to establish whether there are hazards likely to harm the pilot's health or safety. In addition, safety under the CA Act is "at reasonable cost", which is a lesser duty than the "all practicable steps" duty in the HSE Act.
39. The inclusion of employee health and safety provisions within the CA Act would be possible, but would require a dual focus on occupational health and safety and aviation safety. The CAA has indicated that because of the difference in intent of the CA Act and the HSE Act, their preference is for occupational safety and health issues to be handled by OSH.

### Expertise in workplace health and safety

40. CAA staff would need to be trained in the HSE framework. It is likely that a memorandum of understanding between OSH and the CAA would be sufficient to ensure cooperation with regard to expertise.

### Warranting HSE inspectors under CA Act

41. If the CA Act were amended, one option would be to give HSE inspectors power under the CA Act to enforce matters involving occupational health and safety. This has the advantage of using the prescriptive framework of the CA Act, with which the aviation industry is familiar, but enables HSE inspectors to provide expertise and undertake enforcement activities.

### Fiscal implications

42. The extension of the CA Act to include specific coverage of the health and safety of aircrew would have some fiscal implications. Legislative drafting would be required to amend the Act. An increase in auditing staff may be required as this work would be additional to their existing duties. Training of CAA Auditors and other staff would be the most significant cost as they would require training on occupational health and safety issues. As an indication, trainee HSE inspectors undergo between three and nine months of on the job training before being warranted. Overall, the costs of implementation would be significantly higher than under the HSE Act.

## **Analysis of options**

43. It is clear that legislative change is required if aircrew are to have the same statutory coverage as other employees in New Zealand. In determining the best option, a number of criteria have been applied.

### *Compliance costs*

44. Under both options aviation operators will be required to extend their hazard management system to cover aircrew while on board aircraft. The actual cost of this is unknown. Given that all airlines already must comply with the HSE Act both in relation to their ground operations, and within the aircraft in relation to maintenance and service crews, it is not expected to be a significant cost. There is no obvious preference for either option under this criterion.

### *Comprehensive coverage of all work situations*

45. As stated earlier, the primary reason for change is to provide aircrew with the same rights as other workers and employers of aircrew with the same duties. Amending either the CA Act or the HSE Act will enable this to the same degree.

### *Clearly defined responsibilities*

46. Boundaries between enforcement agencies (OSH, CAA and the Transport Accident Investigation Commission) would need to be clearly defined under both options.
47. If the CAA had jurisdiction, the boundary between HSE Act and CA Act coverage of aircrew would be as it is now: aircrew are not covered by the HSE Act once they are on board an aircraft. This is similar to the boundary OSH has with the MSA, which generally works well in practice, although there is potential for confusion over jurisdiction when employees who are not crew are working on board a ship at sea (for example, customs officers, agricultural inspectors). One complication of this arrangement is the implication for the MT Act if the HSE Act were amended. If the Government's primary objective were consistency of coverage, consequential amendments to the MT Act would be required each time the HSE Act was amended. The same would apply to the CA Act.
48. If OSH has jurisdiction, there is no such boundary, but agreements would need to be reached regarding the role of each enforcement agency in the event of an accident. A memorandum of understanding would need to address the possibility of parallel investigations, or criteria for notifying OSH when an aviation incident or accident has occupational health and safety implications (for example, if an employee is harmed in a plane crash).

### *Improved hazard identification and control*

49. Both options would achieve improved hazard identification and control to equal degrees, as the HSE framework would place new legislative requirements on employers of aircrew regardless of whether it is in the HSE Act or the CA Act. These requirements are not new to the employers, only to the environment in which they will apply them.

*Improved internal communication on health and safety*

50. Under either option, the aviation industry will need to work through how “all practicable steps” applies to aircrew on board aircraft. Employers will face a learning curve as they extend their hazard management system to cover aircrew. This should not be significant as airlines already must already comply with the HSE Act both in relation to their ground operations and within the aircraft in relation to maintenance and service crews.

*Promotion of health and safety training and information provision*

51. Under the HSE Act option, some training of OSH staff may be required but, because OSH would not be concerned with the technical aspects of flight safety, the training would be limited in scope.
52. If the CA Act were amended, CAA auditors would require training in the HSE Act framework. Trainee HSE inspectors undergo between three and nine months of on the job training before being warranted.

**Conclusion**

53. The analysis of options does not identify a clearly preferable option, however the discussion of options favours the HSE Act for the inclusion of the legislative coverage of the occupational safety and health of aircrew. The primary reason for this preference is that expertise in occupational safety and health lies with OSH, rather than with the CAA. The CAA have indicated that their expertise is in flight safety and inclusion of safety and health provisions specifically for employees would alter the intent of the CA Act. Therefore, the HSE Act is the recommended option.

## **Recommendations**

I recommend that you

- a) **note** that no New Zealand legislation at present provides specific coverage of the occupational health and safety of aircrew (domestic or international) while on board an aircraft.
- b) **agree** that the HSE Act should be amended to include aircrew.
- c) **agree** that this amendment should specify that the HSE Act will apply to all New Zealand aircrew working for New Zealand airlines whether domestic or international.
- d) **note** that a memorandum of understanding between OSH and the CAA may be required to address issues such as aircraft modification and the role of each agency in accident investigation.
- e) **note** that we would welcome an opportunity to discuss this issue with you.

RJM Hill  
For Secretary of Labour

## **History**

The legislative coverage of the health and safety of aircrew has been debated since the inception of the HSE Bill in the early 1990s. Aircrew were initially excluded from the HSE Bill because it was considered that their occupational health and safety concerns were covered by international agreements through the International Civil Aviation Organisation (ICAO) and other New Zealand legislation (CA Act). In addition, there were questions relating to the HSE Act's applicability to New Zealand aircraft travelling outside NZ jurisdiction and to foreign aircraft within NZ. International aviation agreements, enforced through the CA Act, cater for these issues which further suggested that the CA Act was a more appropriate means for coverage.<sup>1</sup>

During the Select Committee consideration of the HSE Bill, a submission was received from the Flight Attendants and Related Services Association expressing concern that aircrew were not covered by the HSE Bill. Subsequently, the Select Committee sought comment from the aviation industry and the Occupational Safety and Health Service of the Department of Labour (OSH). The Select Committee eventually made this recommendation to the Government:

that the Minister of Transport consider issuing an appropriate directive to the Civil Aviation Authority requiring the authority to co-operate with the Occupational Safety and Health Service (OSH) of the Department of Labour on issues relating to the occupational health of airline crew. OSH would then be in a position to consider with Civil Aviation officials, the best means of addressing formally the safety and health of airline crew. The committee notes that there will always be difficulties of jurisdiction over international flights and it may be that international agreements are the best way of standardising conditions and defining the work base environment in those circumstances.<sup>2</sup>

Following this recommendation, in August 1992, the Minister of Transport issued a policy directive to the Civil Aviation Authority (CAA) to note the Government's policy that the health of aircrew not be impaired through their employment. The directive referred only to health because they decided that aircrew safety was covered through the CA Act. Anecdotal information suggests that the solution may have been intended to be a temporary measure that would be re-visited with the then upcoming revision of the CA Act.

The CAA and OSH signed a memorandum of understanding in April 1993 to give effect administratively to the directive. It was subsequently concluded that directives or rules relating to occupational health and safety could not be made mandatory under the wording of the CA Act, unless they are translated into regulation. Despite this, in 1994 the major airlines agreed to comply with the spirit of the HSE Act.

---

<sup>1</sup> The CA Act applies to New Zealand registered aircraft whether within or outside New Zealand, and to foreign registered aircraft operating in New Zealand. Holders of aviation documents issued under the CA Act are also subject to the Act while outside of New Zealand (S4(1)).

<sup>2</sup> House of Representatives Labour Committee. *Report on Health and Safety in Employment Bill*, no 126-2, 11 August 1992.

In 1996, following further submissions from the Flight Attendants and Related Services Association, the Labour Select Committee in its review of the administration of occupational safety and health policy recommended “that the HSE Act and associated legislation be amended to include coverage for flight attendants.” The Government responded early in 1997 by agreeing that aircrew should have the same coverage as all other employees and a working party was formed between OSH, CAA and the Ministry of Transport to establish the most effective way of achieving legislative coverage.

In April 1997, a Private Member’s Bill was introduced to Parliament to amend the HSE Act to include coverage of aircrew. The Bill was defeated because Government policy at that time placed responsibility for occupational safety and health of aircrew with the CAA in consultation with OSH. The working party had not yet made recommendations to the Government.

In September 1997, the working party summarised the views of key aviation industry stakeholders and submitted options for legislation and administration of aircrew occupational safety and health. The options given were:

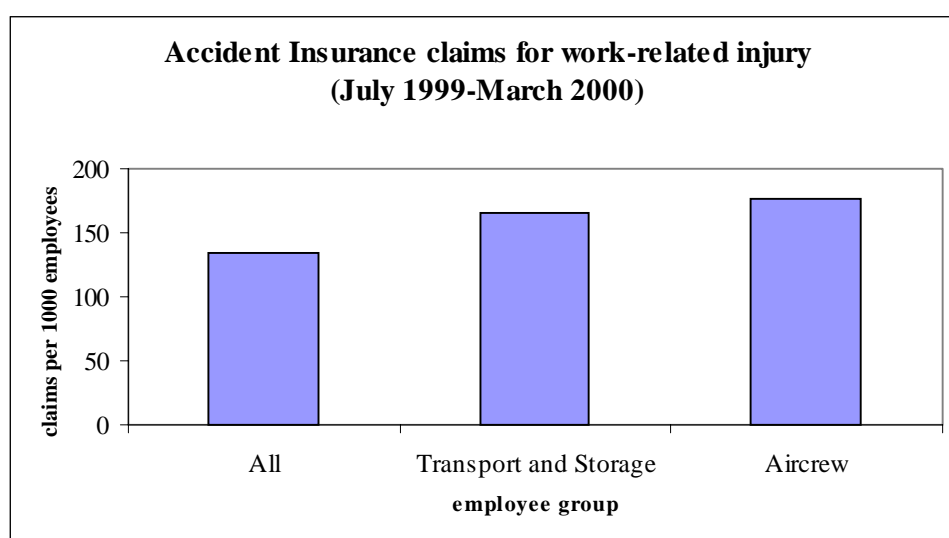
- a) amend the HSE Act to include aircrew, OSH to administer;
- b) amend the HSE Act to include aircrew, CAA to administer;
- c) amend the CA Act to include occupational health and safety for aircrew, OSH to administer; or
- d) amend the CA Act to include occupational health and safety for aircrew, CAA to administer.

OSH and the CAA agreed to undertake an analysis of the most cost-effective option and report back to the Minister. The working party reformed in 1999 and further analysed the issue. Further consultation was also carried out. The organisations consulted are listed in paragraph 54.

The discussion and submissions received as a result of this consultation are taken into account in this paper.

**Research and Statistics**

- A study by the Injury Prevention Research Unit at Otago University of work-related fatal injuries from 1985 to 1994 identified aeroplane pilots, agricultural aeroplane pilots and helicopter pilots as having extremely high fatality rates in comparison with the general population.
- Statistics from the Accident Insurance Regulator for the period July 1999 to March 2000 indicate that aircrew made 395 claims (medical and lost time injury). This translates to a claims rate of 177 claims per thousand employees, which is higher than the average claims rate of 135 claims per thousand for all employees (refer graph). In comparison, the Transport and Storage sector as a whole has a claims rate of 165 claims per thousand workers.



- There is little conclusive research on the occupational health of aircrew. The main research results have been from three studies in Finland, Denmark and the United States, all which have found female flight attendants to have significantly higher rates of breast and bone cancer than the general population. Further studies are currently investigating the incidence of breast cancer and other cancers and adverse reproductive outcomes among female flight attendants.