

Discussion Paper

Clear heads: options to reduce the risks of alcohol- and drug-related impairment in aviation, maritime and rail

March 2015



Ensuring our transport system helps New Zealand thrive



Section four – the recreational sector

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4.1 The Transport Accident Investigation Commission's report *Inquiry 12-001: Hot-air balloon collision with power lines and in-flight fire, near Carterton, 7 January 2012*, released in October 2013, contains specific recommendations for anyone operating an aircraft or a marine craft for recreational purposes. The Commission's report recommends that the Secretary for Transport introduce appropriate legislation that:

- ▶ prescribes allowable maximum levels for alcohol
- ▶ prohibits persons from operating an aircraft or vessel if they are impaired by drugs
- ▶ prescribes post-occurrence testing requirements for drugs and alcohol¹.

4.2 A sufficient amount of research suggests there is widespread alcohol and drug use in society as a whole. This may suggest the presence of their use in the recreational maritime and aviation sectors². For example, in the *Boating Safety Strategy: 2007 Review of the New Zealand Pleasure Boat Safety Strategy*, Maritime New Zealand stated that "alcohol is indicated as a significant cause of accidents and fatalities, but the difficulty of collecting hard evidence means this is underreported as a causal factor³".

4.3 Due to a lack of information on the extent of impairment in the aviation and maritime sectors, we have used the road sector as a proxy in a number of our assumptions. We would point out, however, that the risks from the aviation and maritime sectors vary significantly from the road sector. Drivers in the road sector cover all groups in society, from teenagers to the very old, tourists to professional drivers, cyclists to large trucks, all using the same roads. The numbers of people holding a driver's licence and with access to a vehicle are far greater than for aviation and maritime. The road sector has also had laws governing the use of alcohol for over 40 years. Comparing across the sectors must be done with caution.

4.4 The different risks associated with the aviation and maritime recreational sectors have led to very different approaches in how the government currently addresses the issues of alcohol and drug impairment in these sectors. The risks from being in a motorised vehicle travelling at 100 kilometres an hour on a road with other traffic or an airplane flying at 10,000 feet may seem intuitively more dangerous than being in a small row boat in a calm harbour. The different risk levels have led to licensing regimes for the land and aviation sectors that require both a demonstration of competence and limits on alcohol consumption.

¹ We are using the term 'occurrence' to cover incidents and accidents (and any other equivalent defined term).

² There is effectively no recreational rail sector. All operators are already covered by requirements to develop a safety case that includes a drug and alcohol management plan.

³ <http://www.maritimenz.govt.nz/Publications-and-forms/Recreational-boating/Boating-Safety-Strategy-2007-full-version.pdf>.

- 4.5 However, that is not to say the risks in maritime are lower. The nature of the marine environment can mean alcohol is more hazardous on the water. The motion and exposure to the elements can accelerate a drinker's impairment⁴. Although the risk of speed may not be as great a factor for small marine vessels, impairment in less stable boats can increase the chances of falling overboard and drowning.
- 4.6 The recreational maritime sector, covering everything from super yachts to canoes and kayaks, does not require any mandatory licensing or display of skill level. Beyond a requirement under section 65 of the Maritime Transport Act to not cause "unnecessary danger or risk to any other person or to any property", there are no restrictions on impairment.
- 4.7 In the aviation sector, there are already some requirements around alcohol impairment; however, the status quo in either sectors would not address the concerns the Commission has raised in respect to allowable maximum limits, and post-occurrence testing for all accidents. Unlike the commercial sector, we also do not have the ability to address recreational aircraft and boat use by building on existing health and safety legislation and using tools such as alcohol and drug management plans to modify behaviour. The options we present reflect this.
- 4.8 Regulations for the recreational sector, especially for recreational boating, which is largely unregulated, focus on setting and then enforcing maximum alcohol limits. Any regulation for the recreational sector would require change to primary legislation (that is, an Act of Parliament).
- 4.9 We have not suggested an option where the Police would undertake random testing for enforcement purposes. It was considered early on in the development of the paper, but the scale of the effort that would be required from the Police, the cost associated with implementing a random testing regime and the level of intrusion into people's lives cannot be justified.
- 4.10 The enforcement options discussed for the recreational sector largely mirror those for the commercial sector. The current options include:
- ▶ post-occurrence testing (option B.1.), which would help establish data on the true extent of the problem while also providing a deterrent effect
 - ▶ 'good cause' testing (option B.2.), which would allow the Police to test when there is reason to believe a person is impaired by alcohol.
- 4.11 As with the commercial sector recommendations, the recreational sector recommendations only address impairment from alcohol. Any specific legal requirements around drug impairment would be considered in conjunction with the review in the road transport sector due in July 2015.

⁴ http://www.uscgboating.org/safety/boating_under_the_influence_initiatives.aspx.

Option A: status quo

Retain the status quo. This option includes non-legislative responses such as increased public education

RECREATIONAL	
Option A	<ul style="list-style-type: none"> ▶ Different approaches for aviation and maritime ▶ Few controls on the recreational maritime sector
Status quo	<ul style="list-style-type: none"> ▶ Fit and proper person test and the certificate of medical fitness for the aviation sector ▶ Enhanced education campaigns

Points to consider

- ▶ Is the status quo sufficient to address the risks of impairment associated with alcohol in the recreational aviation and maritime sectors?
- ▶ Should different approaches be taken for the two sectors?

Recreational maritime sector

4.12 There are very few controls on the recreational maritime sector, either through licensing or by preventing someone from operating a vessel. Section 65 of the Maritime Transport Act 1994 does prohibit dangerous activity involving ships or maritime vessels, but this provision has not been widely used for enforcement in the recreational sector.

4.13 The *2007 Boating Safety Strategy*, which is currently being reviewed, reported that between 2000 and 2006 alcohol was consumed in an estimated 18 percent of incidents that resulted in boating fatalities. Both the legislative restraints on testing blood alcohol levels after a recreational boating incident and the underreporting that exists mean that this figure is likely to be higher. With a reported 173 fatalities in the recreational maritime sector from 2002 to 2011, if we conclude the presence of alcohol results in impairment of the skipper, this would equate to 31 deaths over a 10-year period. Based on international evidence, the NZIER estimates impairment would have been a contributing factor in up to 43 deaths over the 2000–2011 timeframe (see Table 1 on page 16).

4.14 Although a legislative response is possible and is discussed further below, in the first instance it may be more cost effective to increase public education and other non-regulatory responses to promote safer practices. Greater public awareness of the risks from impairment (including impairment from drugs) and the existing obligations on recreational boaties under section 65 of the Maritime Transport Act 1994 could be sufficient.

4.15 The Commission's recommendations would not be met by relying on a public education-based approach.

Recreational aviation sector

4.16 In contrast to the recreational maritime sector, requirements already exist regarding impairment in the recreational aviation sector. Civil Aviation Rule Part 19.7 imposes on pilots a legal obligation not to fly if they are impaired. Civil Aviation Rule Part 1 defines 'impaired' as "affected by fatigue, injury, medical condition, or by the consumption of alcohol or other drugs such that the person may be a risk to the safety of himself or herself or of any other person". The Civil Aviation Authority position is that "there is no measurable level of blood alcohol that is safe for aviation".

4.17 In addition, through the pilot licensing process, there are requirements for a 'fit and proper person test' and for a certificate of medical fitness. These requirements consider the applicant's alcohol and drug history and can include drink-driving convictions as a 'red flag' for the possibility of unsafe drinking habits.

4.18 The Ministry of Transport is currently undertaking a review of the Civil Aviation Act⁵. This will examine what the Director of Civil Aviation considers should be clearly defined when determining if a person meets the fit and proper person test. This review will include consideration of any offence relating to controlled drugs (as defined in the Misuse of Drugs Act 1975) or relating to any prescription medicine (as defined in the Medicines Act 1981).

⁵ <http://www.transport.govt.nz/legislation/acts/civilaviationactreviewqanda/>.

Option B: prescribed maximum limits for alcohol

Enforce maximum legal limits for alcohol and prescribe specific alcohol-related offences and penalties

- 4.19 The Commission has recommended the government prescribe maximum allowable levels for alcohol for recreational participants. At present, there are no legally prescribed limits for the presence of alcohol (or other substances) for recreational participants in sectors other than road transport.
- 4.20 Any new regulations would require amendments to the Civil Aviation Act and the Maritime Transport Act. Setting maximum legal limits for alcohol for the recreational sector would allow for monitoring and enforcement. It would also bring both the aviation and maritime recreation sectors in line with the road transport sector.
- 4.21 As with the options for enforcement discussed for the commercial sector (options 4.1 and 4.2), it is necessary to set maximum alcohol limits, determine who they would apply to and determine how enforcement would occur.

Setting maximum alcohol limits for the recreational sector

- 4.22 It may be appropriate to have consistency in the maximum allowable alcohol levels across all recreational transport sectors. This would give those directly affected greater certainty about the applicable limit, irrespective of whether they are on the road, in the air or on water. A limit of 50mg of alcohol per 100ml of blood would also allow the Police to be able to conduct any testing without having to recalibrate equipment for each situation.
- 4.23 Internationally, the commercial maritime sector's approach to managing impairment from alcohol is generally similar to our land transport regime, with a prescribed blood alcohol concentration limit of 50mg/100ml of blood.
- 4.24 However, it may be appropriate to consider a lower legislated limit for pilots. In the recreational aviation sector, a maximum blood alcohol concentration limit of 20mg/100ml of blood for the pilot is used in some jurisdictions. This equates to a zero tolerance of alcohol⁶.

⁶20mg/100ml of blood allows for residual and naturally occurring alcohol in the body.

Who should maximum limits apply to?

- 4.25 In the road sector, maximum blood alcohol limits apply only to the driver. We propose the recreational maritime or aviation limit would only apply to the equivalent of a driver (skipper, master or pilot). It would be difficult to justify applying limits to others in the recreational sector.
- 4.26 While it would be appropriate to consider maximum blood alcohol limits for the skipper of a recreational vessel, the safety issue in the recreational maritime sector is wider. Passenger impairment in the maritime sector is also a concern because of the risk of passengers falling out of the vessel or causing a small vessel to capsize. Regulations affecting just the skipper may not be fully effective in reducing fatalities. It is not clear how controls could be applied to others on a vessel, as it is proposed that legislated limits would apply only to the master or skipper.

How should legislated maximum alcohol limits be enforced?

- 4.27 Implementation would be easier for the Police if provisions for enforcement in the recreational sector are similar to those in the commercial sector.
- 4.28 It would also be appropriate, as far as possible, to model testing procedures on the well-established system in the road transport sector. For road, the testing regime takes the form of a screening test for breath alcohol to indicate if alcohol is present. If alcohol is present, the Police would have a mandate to detain a person for evidential testing, in the form of an evidential breath test followed by a blood sample, if the person gives their permission.
- 4.29 Within option B we have identified two sub-options outlining what level of testing would be permitted:
- B.1. **post-occurrence** – where an occurrence or accident occurs during an aviation or maritime activity
 - B.2. **'good cause'** – where there is reason to believe a person is impaired by alcohol while undertaking an aviation or maritime activity.

Option B.1: post-occurrence testing

Enforcement of maximum alcohol limits with post-occurrence testing

RECREATIONAL		
Option B.1	<ul style="list-style-type: none"> ▶ Changes to the Civil Aviation and Maritime Transport Acts to reflect legal maximum levels for alcohol for skippers and pilots ▶ Penalty regime established ▶ The Police will be able to test the skipper or pilot for the presence of alcohol after a defined occurrence ▶ Enhanced education campaign 	Alcohol Only
Post-occurrence testing		

Points to consider

- ▶ Should the Police have powers to carry out post-occurrence testing of a recreational skipper or pilot to enforce maximum alcohol limits?
- ▶ What would constitute an occurrence that should be investigated?
- ▶ Who should be tested after an occurrence if the results could be used for enforcement?
- ▶ What agency (or agencies) should carry out post-occurrence testing for enforcement and what powers would they need to carry out their task?

4.30 Under this option, the Police would only have the right to enter a recreational aircraft or vessel, to test the operator for impairment, once an occurrence had occurred. The exact meaning of an 'occurrence' would need to be defined, but it is likely to include a fatality or serious accident.

4.31 Post-occurrence testing would be useful for the Commission to understand causes of any accidents. It would also be relatively cost effective to implement because of the limited number of people likely to be tested. However, it is unlikely it would have a deterrent effect if people felt there was negligible chance they would be caught.

4.32 It is vital for all the testing approaches that the Police have the powers to detain people and to undertake potentially intrusive sampling techniques, including collection of blood samples.

Option B.2: ‘good cause’ testing

Enforcement of maximum alcohol limits with ‘good cause’ testing

RECREATIONAL		
Option B.2	<ul style="list-style-type: none"> ▶ Changes to the Civil Aviation and Maritime Transport Acts to reflect legal maximum levels for alcohol for skippers and pilots 	Alcohol Only
‘Good cause’ testing	<ul style="list-style-type: none"> ▶ Penalty regime established ▶ The Police will be able to test skippers and pilots for the presence of alcohol if ‘good cause’ presents ▶ Enhanced education campaign 	

Points to consider

- ▶ Should the Police have powers to carry out ‘good cause to suspect’ testing of a skipper or pilot to enforce maximum alcohol limits?
- ▶ What would constitute ‘good cause to suspect’ impairment that should be investigated?
- ▶ Should it be just pilots or skippers who are tested on the basis of ‘good cause’ and if the results could be used for enforcement?
- ▶ What agency (or agencies) should carry out ‘good cause’ testing for enforcement and what powers would they need to carry out their task?

4.33 Under this option, the Police would have the right to enter any recreational aircraft or vessel to test the operator if they had ‘good cause to suspect’ the operator may be impaired by alcohol. This might include erratic behaviour or the operator’s personal demeanour.

4.34 A comprehensive testing and enforcement programme would need to be implemented to reduce accidents. Effective enforcement would potentially entail a significant new cost for the government as the Police are not equipped or funded to carry out this task. We have not estimated the likely costs of enforcement in this paper. The current Police budget for alcohol and drug enforcement for the road transport sector is over \$47 million per year.