

# **Status update on TAIC safety recommendations**

***Report from the transport sector on activity for 1 July 2021 to 30 June 2022***

The Ministry of Transport, the Civil Aviation Authority, Maritime NZ and the rail sector supply the information for this report.

TAIC collates the information into a single document, but does not validate, analyse, or alter the contents in any way.

# Summary

## Purpose

This report is an update from the Ministry of Transport (MoT), the Civil Aviation Authority (CAA), the rail sector, and Maritime New Zealand (MNZ) on the status of recommendations issued to them by the Transport Accident Investigation Commission (TAIC). Note that TAIC's recommendations are not mandatory.

The report informs you about:

- the numbers of recommendations issued over the reporting period and indicates whether they were
  - accepted (wholly or in part)
  - are under consideration
  - were rejected and will not appear in future reports
- a status report on
  - the decisions about recommendations that were previously reported as under consideration
  - the progress in implementing accepted recommendations.

## Information sources

The information contained in this report is supplied by:

- the Ministry of Transport (MoT)
- the Civil Aviation Authority (CAA)
- Maritime New Zealand (MNZ)
- those in the rail sector with assigned recommendations:
  - Waka Kotahi New Zealand Transport Agency (NZTA)
  - KiwiRail
  - Transdev Auckland
  - the Ministry of Transport (MoT)
  - the National Rail System Standards Executive (NRSS-E)
  - Local Government NZ.

TAIC has collated the information into this document, but has not validated, analysed, or altered the contents in any way.

# Ministry of Transport

## Recommendations issued over the period 01-Jul-21 to 30-Jun-22

Number issued: 0

## Update on recommendations previously reported as being implemented or under consideration

Number reported on: 9

Number implemented: 1

Inquiry	Number	Issued	Status at 30-Jun-21	Status at 30-Jun-22
<b>Aviation</b>				
AO-2018-001	011/20	24-Feb-21	Being implemented	No further action
AO-2018-001	010/20	24-Feb-21	Being implemented	No further action
AO-2015-005	028/17	28-Sep-17	Being implemented	Being implemented
AO-2015-002	014/16	27-Jul-16	Being implemented	Being implemented
AO-2012-001	012/13	11-Oct-13	Being implemented	Being implemented
<b>Rail</b>				
RO-2012-104	008/15	28-May-15	Being implemented	Rejected
RO-2007-105	035/10	19-Aug-10	Being implemented	No further action
<b>Maritime</b>				
MO-2009-201	004/11	22-Oct-10	Being implemented	Rejected
MO-2009-201	003/11	22-Oct-10	Being implemented	Implemented

### AO-2018-001 (011/20)

The Commission recommends that the Secretary for Transport review and revise Civil Aviation Rule Parts 105, 115 and 149 for parachuting operations, in conjunction with the Part 149 organisations' operating procedures and standards, to define flotation devices that are suitable for use by parachutists.

#### Update

No further action from MoT. This recommendation has been transferred to CAA to be put through its Issue Assessment process to determine how best to progress this change, in view of other rule change priorities.

### **AO-2018-001 (010/20)**

The Commission recommends that the Secretary for Transport review and revise Civil Aviation Rule Parts 105, 115 and 149 for parachuting operations, in conjunction with the Part 149 organisations' operating procedures and standards, to reduce the potentially adverse consequences of an unintended water landing.

#### *Update*

No further action from MoT. This recommendation has been transferred to CAA to be put through its Issue Assessment process to determine how best to progress this change, in view of other rule change priorities.

### **AO-2015-005 (028/17)**

On 28 September 2017, the Commission recommended that the Secretary for Transport update and restructure CAR Part 171 to include the wider scope of technology, software and navigation aids that are normal for a modern air navigation service and to make provision for the rule to cater for future changes in technology.

#### *Update*

This recommendation is being implemented. CAA has begun work on the air navigation rules to ensure they are fit for purpose. This includes exploration of how New Zealand can have a more performance-based and risk-based approach within the regulatory framework.

### **AO-2015-002 (014/16)**

On 27 July 2016 the Commission recommended to the Secretary for Transport that he promote, through the appropriate ICAO forum, the need for cockpit video recorders and/or other forms of data capture in the cockpits of certain classes of helicopter to address this safety issue.

#### *Update*

This recommendation is being implemented. CAA will be submitting a paper to ICAO on this issue at the 41st Assembly in September/October 2022. CAA will also consider looking at non-regulatory interventions to give practical effect to this recommendation by encouraging the increased fitment of cockpit recorders to New Zealand helicopters.

### **AO-2012-001 (012/13)**

The Commission recommends that the Secretary for Transport complete, as a matter of priority, all necessary work that will support the introduction of appropriate legislation or rules that will:

- prescribe allowable maximum levels for alcohol
- prohibit persons from operating an aircraft, vessel or rail vehicle if they are impaired by drugs
- require operators to implement drug and alcohol detection and deterrence regimes, including random testing
- prescribe post-occurrence testing requirements for drugs and alcohol.

This legislation or these rules should apply:

- across the aviation, maritime and rail transport modes
- to persons operating an aircraft or a marine craft for recreational purposes.

#### *Update*

This recommendation is being implemented. The Civil Aviation Bill which has now been reported back to the House from Select Committee will require commercial operations to have drug and alcohol management plans as part of their operations.

### **RO-2012-104 (008/15)**

There is no requirement for health professionals who provide primary health care to transport industry personnel employed in safety-critical roles to inform appropriate authorities when there are concerns regarding the fitness of duty of such personnel under their care. In this instance the driver had been prescribed a collection of medications that singularly or collectively had the potential to adversely affect his performance, yet he continued to drive freight and passenger trains.

The Commission recommends that the Secretary for Transport address this safety issue.

#### *Update*

After undertaking initial scoping work, MoT has decided to reject this recommendation. The relationship between the health professional and the worker/patient is governed by the ethics of the relevant health professional and by privacy laws. This relationship differs from the usual doctor-patient relationship because of the involvement of a third party – the rail transport operator or employer. To require health professionals to inform a patient's employer of any concerns they have regarding their fitness of duty would have significant implications for health privacy, as set out in the Health Information Privacy Code 2020.

The National Rail System Standard 3 (the NRSS 3) (2017) details the relationships and responsibilities between rail safety workers, their employers and medical professionals, and the information flow between these parties. Rail safety workers also have a duty of care to themselves and others. The NRSS 3 also has clear guidance on Triggered Health Assessments, which overlay the scheduled periodic assessments and enable early intervention, appropriate management and timely monitoring of health problems that are likely to affect safety.

### **RO-2007-105 (035/10)**

The National Rail System Standard has not been fully reviewed since they were established in 2004. Once the status of the standards and its Committee have been established then an independent review of the standards should be conducted to determine if they are still applicable to the New Zealand rail industry, and to ensure if they are representative of standards set in other comparative countries operating modern rail systems.

#### *Update*

No further action from MoT needed. The 2016 review of the NRSS concluded that there was no requirement for wholesale change to address issues and challenges with the NRSS. MoT understand that the rail industry periodically reviews the NRSS through the NRSS executive to ensure the standards within are fit for purpose.

### **MO-2009-201 (004/11)**

While persons in charge of recreational craft are not required to demonstrate an in-depth knowledge of Maritime Rules around collision avoidance, the risk of collisions and other mishaps will be elevated, increasingly so with increases in recreational boating activity.

It is recommended that the Secretary for Transport address this safety issue by recommending rules or some other mechanism that require the person in charge of a designated recreational craft to hold a licence or certificate that requires them to be appropriately educated to identified standards.

#### *Update*

This recommendation is not being progressed. Licensing is a blunt instrument for dealing with what is a basic safety issue. Evidence shows that education, targeted legislation and enforcement are far more effective. Maritime NZ has noted that where overseas jurisdictions have introduced skipper licensing, they are not aware of any sustained reduction in fatalities or accidents as a direct consequence.

Analysis of recreational boating accidents shows that lack of basic safety precautions, for example, not wearing lifejackets, not carrying reliable communications, failing to check the weather, and alcohol consumption, are the biggest causes of fatalities, not a lack of

knowledge of maritime rules. Requiring boaties to sit a licence would not address these fundamental issues.

Advantages and disadvantages of introducing such a measure were evaluated in 2000 when the National Recreational Boating Safety Strategy was first developed and again in 2007 when this strategy was reviewed and updated. It continues to be assessed by the Forum on an ongoing basis.

### **MO-2009-201 (003/11)**

Maritime Rules Part 80 required commercial jet-boat drivers to undergo a minimum of 50 hours training before being licensed to drive commercial jet-boats. But the Rule did not require the drivers to hold formal Maritime Documents requiring them to demonstrate an in-depth knowledge of the collision-prevention rules (Maritime Rules Part 22) and other maritime skills required of drivers of other types of commercial craft.

While acknowledging that some jet-boat operations do not require interactions with other craft (the Shotover Jet is one example), most commercial jet-boats operate on rivers and lakes where they must coexist with recreational and other commercial craft.

The Commission recommends to the Secretary of Transport that he liaise with the Director of Maritime NZ to address this safety issue, either by a change to the Maritime Rules or through some other appropriate forum.

#### *Update*

This recommendation is implemented. In 2012, MoT and Maritime NZ made an amendment to Part 82 of the Maritime Rules which requires operators to establish programmes of competency assessments to ensure the initial and ongoing competency of jet boat drivers. One of the aims of the assessment requirements is to ensure that drivers are competent when transferring between different types of jet-boat and areas of operation, as well as to manage the risk of experienced drivers becoming over-confident. Under Rule 82.27, jet boat operators, as part of their Safe Operating Plans (SOPs), are required to establish training programmes “to ensure that each driver is adequately and properly trained for the New Zealand Commercial Jet Boat Driver (River) Licence.” Further rules related to driver licensing and competency can be found in Rules 82.61-82.68.

In 2020, Maritime NZ reviewed its process for auditing jet boat SOPs. The responsibility for these audits was transferred from a delegated third party to Maritime Officers. Assessment of driver’s licence applications is done by Maritime Officers or, in limited circumstances, delegated third parties working closely with Maritime NZ.

Driver’s licence applicants are specifically assessed for knowledge of Part 22. During Maritime NZ audits of jet boating operations, SOPs, training records, and licenses are checked. If drivers are present, they are asked questions to demonstrate knowledge of relevant requirements, including Part 22.

# Civil Aviation Authority

## Recommendations issued over the period 01-Jul-21 to 30-Jun-22

Number issued: 1

Inquiry	Rec no.	Date issued	Recommendation	Response
AO-2022-001	001/22	22-Feb-22	On 22 February 2022, the Commission recommended that the Director of Civil Aviation undertake prompt steps to mandate the wearing of pilot restraint harnesses during critical phases of balloon flights.	Rejected

### Report AO-2022-001, recommendation:

**001/22 (rejected) On 22 February 2022 the Commission recommended that the Director of Civil Aviation take prompt steps to mandate the wearing of pilot restraint harnesses during critical phases of commercial balloon flights.**

The recommendation in the initial letter the Authority received on 2 March referenced balloon pilots generally. The embargoed preliminary report later referred to commercial balloon pilots. Commission staff has clarified the recommendation is directed at commercial balloon pilots.

The Director cannot mandate the wearing of safety harnesses for commercial balloon pilots, as that would require amending Civil Aviation Rules (CARs) 91.205. The making of CARs is the sole responsibility of the Minister of Transport, and the Director of Civil Aviation has no statutory ability to make the amendments required to give effect to this recommendation. The Authority is contracted by the Ministry of Transport to develop and draft CAR amendments, based on rule change proposals agreed by the Minister and the Ministry of Transport. The Authority can, however, make recommendations and propose amendments to the Minister following appropriate policy development and impact assessment process.

As such, the Director cannot accept recommendation 001/22 as it is currently written. The above recommendation should be made to the Ministry of Transport.



## Update on recommendations previously reported as being implemented or under consideration

Number reported on: 8

Number implemented: 6

Inquiry	Rec no.	Date issued	Status at 30-Jun-21	Status at 30-Jun-22
AO-2018-005	005/21	27-May-21	Being implemented	Under consideration
AO-2018-005	004/21	27-May-21	Being implemented	Implemented
AO-2018-001	012/20	24-Feb-21	Being implemented	Implemented
AO-2017-004	005/20	22-May-20	Being implemented	Implemented
AO-2015-009	020/18	23-Aug-18	Being implemented	Implemented
AO-2014-006	008/17	23-Feb-17	Being implemented	Being Implemented
AO-2015-002	015/16	27-Jul-16	Being implemented	Implemented
AO-2008-001	028/09	17-Aug-09	Being implemented	Implemented

### Status for CAA recommendations

In summary, 1 recommendation has been rejected and 5 recommendations have been implemented. 1 recommendation requires clarification from the Commission, leaving 2 recommendations that are in the process of being implemented.

### Operations

#### Report AO-2014-006, recommendation:

**008/17 (being implemented) – Recommendation to extend the limitations and requirements of FAA AD 95-26-04 (US Federal Aviation Authority airworthiness directive) to R44 and R66 helicopters in New Zealand, and to all pilots of Robinson helicopters in New Zealand regardless of their experience.**

The Authority is currently implementing recommendation 008/17.

The Authority has issued a Notice of Requirement under Civil Aviation Rule (CAR) Part 61 Subpart I 'Requirements for Training, Operation and Use of Aircraft Following a Safety Review', specifically CAR Part 61.377, refer to NTC 61.365 Robinson Safety Awareness Training which was issued 30 October 2017.

Advisory Circular 61-10 Pilot licences and ratings - Type ratings Revision 11, which was published 21 June 2021 also addresses the above recommendation. As well as a Good Aviation Practice (GAP) Booklet, 'Helicopter Performance' which was revised and published in 2020. Robinson Helicopter Company emailed the Commission in January 2021 with an update and request that the Commission consider the removal of the Robinson mast bumping issue from the watchlist.

In relation to the FAA AD (Airworthiness Directive) the state of design have rescinded AD 95-26-04 and therefore the Authority is not yet in a position to raise the recommended AD. The Authority is currently in contact with the relevant FAA individuals to further understand the FAA position for both R44 and R66.

**Report AO-2018-005, recommendation:**

**004/21 (implemented) – On 27 May 2021 the Commission recommended that the Director of Civil Aviation publish an educational article raising awareness of the importance of pilot type training being sufficiently comprehensive to mitigate any risks presented by particular helicopter characteristics.**

**005/21 (under consideration) – On 27 May 2021 the Commission recommended that the Director of Civil Aviation promote educational awareness of the benefit of aircraft pilots and occupants wearing appropriate helmets, and conduct risk assessments to determine when practicable and when operational conditions indicate a potential benefit.**

The Authority has implemented recommendation 004/21. The Authority agrees with publishing educational articles, such as those published in Vector to raise awareness of the importance of comprehensive pilot type training to mitigate the risks presented by different helicopter characteristics. The Authority decided that in lieu of a Vector article, it was more appropriate to amend Advisory Circular AC61-10 which the Authority believes addresses recommendation 004/21. AC61-10 was updated on 21 June 2021 and is accessible via the Authority's website.

The Authority accepts the first clause of recommendation 005/21, but is working with the Commission to clarify how the second clause of 005/21 should be understood;

'...and conduct risk assessments to determine when practicable and when operational conditions indicate a potential benefit.'

The Authority believes that Civil Aviation Part 100 *Safety Management* and the Health and Safety at Work Act 2015 already sufficiently require operators to consider their risks and whether the use of personal protective equipment (including a flight helmet) is appropriate for use during operations. Specifically, CAR 100.3 requires certificated organisations to implement a process for risk management that identifies hazards to aviation safety, and that evaluates and manages the associated risks. Hazards, incidents, and accidents must be internally reported and analysed, and actions must be taken to prevent recurrence. Likewise, section 30 of HSWA requires the elimination of risks to health and safety, so far as is reasonably practicable; and if it is not reasonably practicable to eliminate risks to health and safety, to minimise those risks so far as is reasonably practicable. We consider these existing legal obligations satisfy the second half of the recommendation as we understand it, and trust that the Commission agrees.

The Authority is working with the Commission to clarify how the second clause of 005/21 should be understood. Given the range of safety helmets available, coupled with the wide range of permutations in operating conditions under which they may or may not be worn, it is

the Authority's view that the risks are best managed through an individual safety management system. The Authority would build this advice into the educational material noted above.

**Report AO-2018-001, recommendation:**

**012/20 (implemented) – The Commission recommends that the Director of Civil Aviation review the parachute accident and incident reporting system under Civil Aviation Rule Part 12 and Advisory Circular AC12.1, in conjunction with the Part 115 and Part 149 organisations' requirements, to provide a more effective national resource to manage the sector's safety.**

The Authority has completed implementing recommendation 012/20, the Authority:

- expanded the data descriptors of a parachute malfunction and recording specific information such as a line twist or tension knot
- has asked participants to provide more specific detail in the CA005SKYDIVE form
- has worked collaboratively with the New Zealand Parachute Industry Association to help improve their data collection
- updated AC12.1 on 11 May 2021 to ensure there is enough guidance for parachute occurrence reporting and this information is available on the Authority's website
- has reviewed the parachute accident and incident reporting system for Part 115 with a focus on Part 149 operators to provide a more effective national resource to manage the sector's safety.

## Airworthiness

**Report AO-2017-004, recommendation:**

**005/20 (implemented) – Recommendation to amend policies and procedures for issuing certificates of airworthiness for imported second-hand aircraft.**

The Authority has implemented recommendation 005/20.

Procedure (CP 21H-01) was approved on 15 October 2021 and is operational.

**Report AO-2015-002, recommendation:**

**015/16 (implemented) – Recommendation to promote, through the appropriate ICAO forum, of the need for cockpit video recorders and/or other forms of data capture in the cockpits of certain classes of helicopter.**

The Authority has accepted recommendation 015/16. The Authority promoted and submitted to the 41<sup>st</sup> ICAO Assembly the need for cockpit video recorders and/or other forms of data capture in the cockpits of certain classes of helicopter to address this safety issue.

## Aerodromes

### **Report AO-2008-001, recommendation:**

#### **028/09 (implemented) – Recommendation to review of operations at aerodromes around New Zealand that have opposing circuits, to assess and minimise the potential for a mid-air collision.**

The Authority has implemented recommendation 028/09 and continues to work with operators to assess and minimise the potential for mid-air collision.

This recommendation was issued over 11 years ago. Over that time the Authority has continued to monitor the safety performance of aerodromes and respond to identified safety risks, including engagements from aviation safety advisors as required.

The Authority is limited in our scope of influence. Whilst we have certainly achieved the intent of these recommendations in the certificated aerodrome space, in the un-attended aerodrome space we are constrained. There are several hundred unattended aerodromes and likely more aerodromes that do not require notification to the Authority.

We are currently actively engaged with Wanganui, Tokoroa, Hamilton and Taupo Airports with regard to airspace safety improvements. We have recently completed interactions with Kaikoura and Glacier Country Aerodromes with regard to airspace safety in the vicinity of the aerodrome.

In the last two years, three additional aerodromes have become certificated – Glacier Country Heliport, Ardmore Aerodrome and Te Anau/Manapouri.

We have published additional guidance on airspace right of way rules and put out messaging on aerodrome circuit joining procedures.

We are also heavily engaged in the current review of the provision of air traffic services at Napier, Gisborne, New Plymouth, Invercargill, Rotorua, Kapiti and Milford Aerodromes for which aircraft circuit joining procedures is a key consideration.

We will also embark on an outreach/interaction with district councils to educate them on the requirements for aerodrome operators (councils are the largest grouping of airport owners) from a civil aviation act and HSWA 2015 perspective.

## Air traffic control

### **Report AO-2015-009, recommendation:**

#### **020/18 (implemented) – Recommendation to raise public awareness of the visual flight rules (VFR) traffic around the Hamilton area and work with aerodrome safety groups to resolve congestion hazards and traffic flow routes into and out of the zone.**

The Authority has implemented recommendation 020/18. Engagement with the user group is ongoing. The Authority identified that rather than a GAP booklet (with a print of 2000) better coverage of this issue could be achieved via the Authority Flagship publication 'Vector' (15,500 copies and also available online). Accordingly, this was profiled in the Autumn 2020 (February) edition.

The Authority remains engaged with the Aerodrome/Airspace user Group, and regularly attends the quarterly meetings of this entity. The North Island Aviation Safety Advisory has been well established and also remains engaged with the forum. The demand on airspace by VFR Training aircraft has dropped significantly since the closure of L3 Training.

## Rail sector

### Recommendations issued over the period 01-Jul-21 to 30-Jun-22

Number issued: 6

Inquiry	Rec no.	Date issued	Recommendation	Response
<b>To KiwiRail and Waka Kotahi NZTA</b>				
RO-2020-101	012/21	8-Dec-21	On 8 December 2021, the Commission recommended that KiwiRail and Waka Kotahi NZ Transport Agency examine how the selection of level crossings for LCSiAs and upgrade can be more accurately prioritised from ALCAM risk scores and other existing data sources.	Accepted
				Accepted
<b>To Waka Kotahi NZTA</b>				
RO-2020-103	008/21	24-Nov-21	The Commission recommended that Waka Kotahi NZ Transport Agency review clause 9.5(c) of the Land Transport (Road User) Rule 2004 in consultation with the rail industry to assess its adequacy regarding the risks posed by level crossings in close proximity to road intersections.	Under consideration
RO-2019-108	006/21	27-Oct-21	On 27 October 2021 the Commission recommended that Waka Kotahi review its current auditing of agencies delegated to approve traffic management plans, to ensure that applicants developing traffic management plans identify any rail crossings within the vicinity of proposed work and that the rail access providers have been consulted to ensure that any additional safety requirements in relation to the road/rail interface are met	Accepted
<b>To KiwiRail</b>				
RO-2020-101	011/21	8-Dec-21	On 8 December 2021, the Commission recommended that KiwiRail, in the development of a formal SFAIRP policy, consider incorporating wider factors of engineering judgement, incident history and local knowledge. (011/21)	Accepted
RO-2020-104	009/21	8-Dec-21	On 8 December 2021, the Commission recommended that KiwiRail carry out	Accepted

Inquiry	Rec no.	Date issued	Recommendation	Response
			an analysis of how it could best incorporate engineering control measures into both its current and future operations to minimise the risks that human factors play in effective protection for track workers. (009/21)	
<b>To Local Government NZ</b>				
RO-2019-108	007/21	27-Oct-21	On 27 October 2021 the Commission recommended that the Secretary for Local Government provide leadership to, and work with local authorities to ensure that traffic management plans identify any rail crossings within the vicinity of the proposed work and that the rail access providers have been consulted to ensure that any additional safety requirements in relation to the road/rail interface are met.	

## Update on recommendations previously reported as being implemented or under consideration

Number reported on: 14

Number implemented: 5

Inquiry	Rec no.	Date issued	Recipient	Status at 30-Jun-21	Status at 30-Jun-22
RO-2019-104	009/20	24-Sep-20	KiwiRail	Being implemented	Being implemented
RO-2019-103	003/20	6-Apr-20	KiwiRail	Being implemented	Being implemented
RO-2017-105	033/18	13-Dec-18	KiwiRail	Being implemented	Implemented
RO-2017-105	034/18	13-Dec-18	LGNZ	Being implemented	Implemented
RO-2017-101	019/18	23-Aug-18	KiwiRail	Being implemented	Being implemented
RO-2017-102	010/18	23-May-18	KiwiRail	Being implemented	Implemented
RO-2016-101	034/17	15-Dec-17	KiwiRail	Being implemented	Being implemented
RO-2016-101	033/17	15-Dec-17	KiwiRail	Being implemented	Being implemented
RO-2014-105	017/17	26-Jun-17	KiwiRail	Being implemented	Being implemented
RO-2015-102	004/17	24-Feb-17	NRSS-E	Being implemented	Being implemented
RO-2012-104	011/15	26-Aug-15	KiwiRail	Being implemented	Being implemented
RO-2015-101	012/15	30-Jul-15	NZTA	Being implemented	Implemented
RO-2012-101	009/14	17-Mar-14	NZTA	Being implemented	Implemented
RO-2011-104	031/11	16-Dec-11	NZTA	Being implemented	Being implemented

### Status of the recommendations assigned to Waka Kotahi

**Traffic Management Plans:** The recommendation includes auditing of traffic management plans, which is occurring for Waka Kotahi controlled traffic management plans. However this is not something that is regulated or enforceable, and generally falls under the requirements of HSWA. As such, our current approach of providing guidelines to PCBUs involved in temporary traffic management is continuing. The main focus is producing a new guide which is adopting a more risk management approach about how to ensure safety as opposed to practical guidance (ie a move away from prescriptive rules or best practise). A key part of this is working with RCA's and other key partners on the use of the new guidelines, and what measures they can take to keep people safe. Worksafe have also updated their advice on keeping healthy and safe while working on the road or roadside. This advice includes a specific section for working near the rail corridor. (RO-2019-108, 006/21 & 007/21)

### Status of the recommendations assigned to KiwiRail

**Level Crossings:** In 2020, KiwiRail developed a 'Top 200' list of level crossings that would benefit from improved safety measures. A number on that list have since had works completed, or LCSiAs undertaken to identify proposed mitigation measures (subject to funding). KiwiRail and Waka Kotahi are now collaborating to develop the next Top 200 level



crossing priority list, which will include any from the existing list where no safety improvement or LCSIA has been undertaken.

Through the RCA Forum Road/Rail Working Group, we are proposing to develop the new Top 200 list using a regional approach, to help inform RTC's in forward planning of works and funding decisions for future RLTPs. We would develop a Top 10 list of passively controlled level crossings for each region. This top 10 would consider both the ALCAM risk score and the incident data recorded in KiwiRail's ORA database, and where possible include future projections on increased rail & road traffic figures.

These lists would be circulated to the RLT committees throughout NZ for funding and forward planning considerations, including undertaking LCSIAs to determine most appropriate safety treatment to be implemented. (RO-2020-101, 012/21 and RO-2011-104, 031/11)

**Level Crossings (SFAIRP):** SFAIRP policy is currently in progress. Expected implementation end of 2022. (RO-2020-101, 011/21)

**Safe Working Irregularity:** Work is currently underway to renew the Train Control system which will give us the technology to move to a form of hand-held track worker interaction in the future.

The strategy is to deliver a Business Case for to be funded and delivered in the 2025 – 2027 funding period. We will have completed implementation of the new Train Control system by 2025. (RO-2020-104, 009/21 and RO-2019-104, 009/20)

**Signalling Safety:** This is still work in progress. 6 monthly updates are provided to NZTA, these are presented by KiwiRail & TransDev and will include Greater Wellington Regional Council. (RO-2016-101, 034/17 and 033/17 & RO-2017-102, 010/18)

**Fatigue Management:** Fatigue management project is still progressing. Full implementation will take some time to complete. (RO-2017-101, 019/18 and RO-2014-105, 017/17)

**Cyclic Track Conditions:** Further development of EM80 (track evaluation car) is required for recording of additional cyclic parameters and amendments to current thresholds. New standards will need to be developed following this. Expected completed June 2023. (RO-2019-103, 003/20)

# Maritime NZ

## Recommendations issued over the period 01-Jul-21 to 30-Jun-22

Number issued: 2

Inquiry	Rec no.	Date issued	Recommendation	Response
MO-2021-202	009/22	25-May-22	The Commission recommended that Maritime New Zealand ensure that as soon as reasonably practicable the owner of the Amaltal Enterprise install a new system that complies with current maritime rules and put in place additional measures to manage the risk created by the limitations of the current fire-extinguishing system until such time as the new system is installed.	Accepted
MO-2021-201	008/22	27-Apr-22	The Commission recommended to the Director of MNZ that they engage with operators working under Maritime Rules Part 82 to identify jet boat systems which carry the risk of single point failure that would result in a total loss of control of the jet boat, and discuss possible measures that could be taken to reduce the risk to passengers and crew to as low as reasonably practicable.	Accepted

## Update on recommendations previously reported as being implemented or under consideration

Number active over period: 29

Number implemented: 14

Inquiry	Rec no.	Date issued	Status at 30-Jun-21	Status at 30-Jun-22
MO-2020-201	003/21	27-May-21	Being implemented	Being implemented
MO-2019-204	013/20	18-Nov-20	Being implemented	Being implemented
MO-2019-202	001/20	21-Feb-20	Being implemented	Being implemented
MO-2019-201	010/19	12-Dec-19	Being implemented	Implemented
MO-2018-202	008/19	26-Sep-19	Being implemented	Being implemented
MO-2018-202	009/19	26-Sep-19	Being implemented	Being implemented
MO-2017-203	030/18	22-Nov-18	Being implemented	Being implemented
MO-2016-206	012/18	23-May-18	Being implemented	No further action
MO-2016-206	013/18	23-May-18	Being implemented	Being implemented
MO-2016-206	014/18	23-May-18	Being implemented	Being implemented
MO-2016-204	029/17	26-Oct-17	Being implemented	No further action
MO-2016-204	030/17	26-Oct-17	Being implemented	Implemented
MO-2015-201	026/17	23-Aug-17	Being implemented	Implemented
MO-2014-202	001/15	26-Feb-15	Being implemented	Implemented
MO-2010-204	004/13	22-Mar-13	Being implemented	Implemented
MO-2010-204	005/13	22-Mar-13	Being implemented	Implemented
MO-2012-201	003/13	13-Feb-13	Being implemented	Implemented
MO-2009-204	016/11	25-May-11	Being implemented	Being implemented
MO-2009-201	002/11	22-Oct-10	Being implemented	Implemented
MO-2009-201	006/11	22-Oct-10	Being implemented	Implemented
MO-2009-201	007/11	22-Oct-10	Under consideration	Rejected
MO-2009-203	012/10	19-May-10	Being implemented	Implemented
MO-2009-203	013/10	19-May-10	Being implemented	Implemented
MO-2009-203	011/10	19-May-10	Being implemented	Implemented
MO-2007-207	014/09	27-Apr-09	Being implemented	Implemented
MO-2007-207	013/09	27-Apr-09	Being implemented	Implemented
MO-2007-206	001/08	20-Mar-08	Being implemented	Being implemented
MO-2003-201	033/03	29-Aug-03	Being implemented	Being implemented
MO-2003-201	025/03	22-Jul-03	Being implemented	Being implemented

**MO-2020-201 003/21** *On 27 May 2021 the Commission recommended that Maritime New Zealand, when assessing or auditing operator safety systems for fishing vessels, review the adequacy of watchkeeping training programmes for upskilling unqualified deckhands to a level that meets good industry practice and complies with the requirements of Maritime Rules Part 31.*

- Maritime New Zealand (Maritime NZ) are in the process of implementing this recommendation.

We are in the final stages of producing two pieces of guidance (one to PCBU's and one to workers) to address issues related to crew fatigue and watch-keeping on fishing vessels. We expect to send these out for consultation soon. As per the letter we sent to TAIC on 16 June 2021 incorporating the recommendation into audit processes within the MOSS and SOP safety systems is also being considered.

**MO-2019-204 013/20** *On 18 November 2020 the Commission recommended that Maritime New Zealand ensure that future Maritime Rules require appropriate stability, buoyancy, and survivability assessments with respect to a vessel's area of operation, and that information is made available for all domestic commercial passenger vessels.*

- Maritime NZ are in the process of implementing this recommendation.

This issue is being incorporated into a wider reform of Maritime Rules Part 40. The 40 Series Reform is a long-term, collaborative project that intends to ensure that the rules for design, construction and equipment for domestic (non-SOLAS) ships are fit for purpose.

The 40 Series team is in the 'exploring change' stage of the project – currently focused on the priority areas of: life-saving appliances, electrical standards, the survey process and fire-safety systems. The project is progressing well and as work on these areas is completed, other topic areas, including stability, communication and navigation, and watertight integrity, will be explored. We anticipate that formal public consultation on the draft rules will take place in mid-2024.

**MO-2019-202 001/20** *On 21 February 2020, the Commission recommended that the Director of Maritime New Zealand continue to develop its fatal accident database to improve the quality of the data so that the maritime sector is better able to understand the risks of alcohol and drug use in recreational boating accidents.*

- Maritime NZ are in the process of implementing this recommendation.

As communicated to TAIC in March 2020 upon accepting this recommendation we are updating and improving the quality, fidelity and timeliness of data held in Maritime NZ's

internal Maritime Fatal Events Database. This is an on-going and continuing task for Maritime NZ data analysis staff. Maritime NZ does not consider it prudent to specify a completion date for this recommendation. An update on progress on the increasing reliability of the data set could, however, be provided as that becomes evident.

In addition on 04 June 2020 Maritime NZ issued a media release titled 'Safer Boating Forum welcomes TAIC report linking jet boat crash to alcohol'.

**MO-2019-201 010/19** *On 12 December 2019 the Commission recommended to the Director of Maritime New Zealand that they ensure all operators working under Maritime Rules Part 82 have identified on each jet boat all systems that are critical to the safe operation of the boat, and to have a documented inspection and maintenance system in place that covers those critical systems and also ensures they meet manufacturers' specifications. The inspection and maintenance system should complement rather than replace any existing system of daily checks.*

- Maritime NZ believes we have implemented this recommendation.

Since our response to Draft Report MO-2019-201 in December 2019, MNZ has undertaken a significant overhaul of the system for auditing SOPs under Part 82.

Previously, an MNZ-delegated third party was responsible for compliance activities under Part 82, including:

- Inspecting all the vessels requiring an inspection;
- Assessing jet boat driver's license applicants; and
- Auditing operator SOPs.

In 2020, the responsibility for auditing operator SOPs was transferred to MNZ staff, with third party delegation limited to vessel inspections and assessing some license applications. Maritime NZ is in the process of appointing more delegated third parties. All will have extensive experience in commercial jet boating or in engineering and engine maintenance. Having MNZ staff responsible for auditing all operator SOPs allows for:

- Certainty that audits are of high quality; and
- Strong oversight of the operators as well as the performance of any delegated third parties.

In addition to the above in late 2020 MNZ published a safety update relating to Jet Boats with systems that use studs to hold steering nozzle housing in place.

<https://www.maritimenz.govt.nz/content/commercial/safety/safety-updates/equipment-cranes-cargo/jet-boats-steering-nozzle.asp>

Also in September 2022 maintenance guidelines supported by Maritime NZ were published by the NZ Commercial Jet Boat Association

<https://www.maritimenz.govt.nz/content/commercial/safety/safety-management-systems/sop/jetboats.asp>

**MO-2018-202 008/19** *On 26 September 2019 the Commission recommended to the Director of Maritime New Zealand that they take any measures available to them to make post-2004 fishing vessels comply with as many of the design, construction and equipment standards prescribed in the current Rule 40D as are reasonable and practicable.*

- Maritime NZ are in the process of implementing this recommendation.

This issue is being incorporated into a wider reform of Maritime Rules Part 40. The 40 Series Reform is a long-term, collaborative project that intends to ensure that the rules for design, construction and equipment for domestic (non-SOLAS) ships are fit for purpose.

The 40 Series team is in the ‘exploring change’ stage of the project – currently focused on the priority areas of: life-saving appliances, electrical standards, the survey process and fire-safety systems. The project is progressing well and as work on these areas is completed, other topic areas, including stability, communication and navigation, and watertight integrity, will be explored. We anticipate that formal public consultation on the draft rules will take place in mid-2024.

Maritime New Zealand will, in the meantime, continue to work with vessel owners, operators and surveyors to adopt an approach to the pre-post 2004 concept in a way that seeks to achieve safe standards.

**MO-2018-202 009/19** *On 26 September 2019 the Commission recommended to the Director of Maritime New Zealand that they work with the Ministry of Transport to amend Rule 40D to put appropriate measures in place to ensure that aging fishing vessels are not permitted to remain in the system indefinitely without being required to meet contemporary safety standards.*

- Maritime NZ are in the process of implementing this recommendation.

We understand the intent of this recommendation is aimed at ensuring that safety standards do not fall behind and place people at risk. To that end, Maritime NZ is progressing work on comprehensive reform of the Maritime Rules Part 40 series.

This issue is being incorporated into a wider reform of Maritime Rules Part 40. The 40 Series Reform is a long-term, collaborative project that intends to ensure that the rules for design, construction and equipment for domestic (non-SOLAS) ships are fit for purpose.

The 40 Series team is in the ‘exploring change’ stage of the project – currently focused on the priority areas of: life-saving appliances, electrical standards, the survey process and fire-safety systems. The project is progressing well and as work on these areas is completed, other topic areas, including stability, communication and navigation, and watertight integrity, will be

explored. We anticipate that formal public consultation on the draft rules will take place in mid-2024.

**MO-2017-203 030/18** *On 22 November 2018 the Commission recommended that the Director of Maritime New Zealand raise through the appropriate International Maritime Organization safety committee for its consideration, the implications for maritime safety of not having adequate minimum standards for the inspection, testing and rejection of pressure vessels that are part of a stored energy system.*

- Maritime NZ are in the process of implementing this recommendation.

The global interruption of the COVID-19 pandemic overshadowed this item being raised at the International Maritime Organization safety committee during the past two years. This item remains on the International Engagement and Coordination teams action register and we will provide an update in the next annual report.

**MO-2016-206 012/18** *Maritime New Zealand receives some information via its general enquiries contact point and also via its maritime officers' engagement with the community. However, there would be some added benefit if there were a similar process to that operated by the Civil Aviation Authority for people to report safety and security concerns. On 23 May 2018 the Commission recommended that the Director of Maritime New Zealand develop, implement and advertise a process where members of the public and the maritime community can submit reports on maritime-safety-related concerns.*

- Maritime NZ has implemented this recommendation in part, but no further action will be taken

MNZ advised TAIC in 2018 that it already has a system in place to receive, record and act upon reports relating to maritime-safety-related concerns from various public sources. MNZ also receives some information via MNZ's maritime officers' engagement with the community. Information so received, and its sources, is protected as far as possible, subject to the requirements of the Privacy Act and Official Information Act. Without the appropriate legal provisions, MNZ's ability to operate a confidential reporting process similar to that operated by the Civil Aviation Authority is constrained.

However, MNZ is committed to continuing to implement and advertise its existing process where members of the public and the maritime community can submit reports on maritime-safety-related concerns. MNZ will actively promote the availability of this reporting process and look for opportunities to improve it where possible.

**MO-2016-206 013/18** *The Commission is of the view that for commercial operations in exposed open waters, particularly when vessels are approved to operate out of bar harbours, the minimum requirement should be a type 401 lifejacket, and it should be required to have a crotch strap fitted. For the same reasons, Maritime New Zealand should place some emphasis in its safety campaigns on recommending that recreational users adopt a similar standard when intending to cross bar harbours or venture into exposed coastal waters.*

*On 23 May 2018, the Commission recommended that the Director of Maritime New Zealand review the current requirements for the carriage of lifejackets on commercial restricted-limit vessels, and use an appropriate mechanism to ensure that the required lifejackets are of an appropriate type for the type and place of operation.*

- Maritime NZ are in the process of implementing this recommendation.

This issue is being incorporated into a wider reform of Maritime Rules Part 40. The 40 Series Reform is a long-term, collaborative project that intends to ensure that the rules for design, construction and equipment for domestic (non-SOLAS) ships are fit for purpose.

The 40 Series team is in the ‘exploring change’ stage of the project – currently focused on the priority areas of: life-saving appliances, electrical standards, the survey process and fire-safety systems. The project is progressing well and as work on these areas is completed, other topic areas, including stability, communication and navigation, and watertight integrity, will be explored. We anticipate that formal public consultation on the draft rules will take place in mid-2024.

Maritime NZ also published an article in July 2018 in *Lookout!* Magazine which was titled ‘Crotch strap my have saved kayaker’.

**MO-2016-206 014/18** *On 23 May 2018, the Commission recommended that the Director of Maritime New Zealand use an appropriate mechanism to make it mandatory for crotch straps to be fitted to lifejackets required on board commercial vessels that operate out of bar harbours and off exposed coastlines.*

- Maritime NZ are in the process of implementing this recommendation.

This issue is being incorporated into a wider reform of Maritime Rules Part 40. Maritime NZ is currently reviewing the design, construction and equipment (DCE) rules for commercial vessels, including the standards associated with life-saving appliances such as life jackets.

The life jacket proposal, currently being developed, would require life jackets to comply with the minimum requirements outlined in one of a number of standards, including NZS 5823-2005. NZS 5823-2005 recommends that manufacturers fit crotch strap attachment points for life jackets used for open water and inshore areas to ensure that crotch straps are able to be



fitted. Under the previous standard, crotch strap attachments were only recommended for life jackets used in the offshore area.

It is anticipated that this proposal will be publicly consulted on, alongside other DCE proposed rule changes, in early to mid 2024. Following public consultation, any changes would be a Ministerial decision and require legislative change.

**MO-2016-204 029/17** *On 25 October 2017 the Commission recommended that the Director of Maritime New Zealand, use the Port and Harbour Marine Safety Code and its associated governance arrangements, or any other appropriate mechanism, to ensure that port authorities produce and publish passage plans for their respective pilotage districts that meet the port-specific requirements and guidelines contained in, Chapter V, Safety of Navigation, of the Annex to the International Convention for the Safety of Life at Sea and Resolution A.893(21) Guidelines for Voyage Planning.*

- Maritime NZ has implemented this recommendation in part, but no further action will be taken

In January 2018 the Director of Maritime NZ wrote to the Secretariat of the Port and Harbour Safety Code (the Code), asking the Steering and Working Groups to consider TAIC's recommendations. We were informed that the Working Group met in February 2018 and considered TAIC's recommendations and reviewed the Code guidance on good practice for port passage planning and guidance.

The Code Steering Group endorsed the conclusion reached by the Working Group that the Code is a voluntary Code for the providers of port and harbour services. It provides guidance of good practice at a high level. The manner in which this is put into operation is left to each party to determine as deemed appropriate to operational imperatives relevant to each specific location.

Consistent with the Code goal to ensure the safe management of ships navigating in New Zealand ports and harbours and the objective to raise awareness and generate continuous improvement, an undertaking was given to include the TAIC report and recommendations in the next Code Newsletter. This was published in November 2018.

We have been informed that no response has been received by the Secretariat from port operators or harbour authorities on this incident, although the Molly Manx incident was used as a learning case study at the Code Forum in July 2018.

**MO-2016-204 030/17** *On 25 October 2017 the Commission recommended that the Director of Maritime New Zealand, encourage responsible harbour authorities to produce their passage plans in a format that will in future be capable of being directly uploaded into a vessel's ECDIS.*

- Maritime NZ believes we have implemented this recommendation.

Maritime NZ has developed a page on its website that contains information to assist masters of ships visiting New Zealand in preparing their voyage plan as required by SOLAS V Regulation 34. While Maritime NZ has developed a page with links to pilotage plans the Director does not have the authority to require port operators or regional councils to have passage plans being in such a format that it can be uploaded directly into a vessel's ECDIS.

**MO-2015-201 026/17** *On 23 August 2017, the Commission recommended that Maritime New Zealand issue guidance and advice to operators and surveyors about the need to take a risk-based approach when determining the level of surveyor oversight required for changes to critical systems, regardless of whether or not the changes are considered major modifications.*

- Maritime NZ believes we have implemented this recommendation.

Maritime NZ took the opportunity to provide guidance on this matter. This guidance supports commercial ships owners to better understand when a modification or repair to their ship may be major, and the duties to obtain design approval for an in-construction survey of a major modification or repair. Maritime NZ issued this Position Statement in December 2018. Position statements are a form of guidance intended to assist surveyors and operators.

The Position Statement reiterates that the owner and operator of a commercial ship have a duty to comply with the relevant maritime rules. As the incident involving the Kea was about the steering systems the guidance outlines 'important elements on a ship', which includes machinery, steering and propulsion. It gives examples of major modification such as the redesign or reconfiguration of all or most of the ship's steering system, where different parts replace the original system.

<https://www.maritimenz.govt.nz/content/rules/position-statements/PS-09-18.pdf>

**MO-2014-202 001/15** *On 26 February 2015 the Commission recommended that the Director of Maritime New Zealand, through the port and flag state control programme, verify that wires that require regular inspection and maintenance by a ships crew and surveyors are readily accessible and easily maintained as required by Chapter VI of the International Life-Saving Appliance Code.*

- Maritime NZ believes we have implemented this recommendation.

Current Port State Control Officer training provided by Maritime NZ includes detailed training around all types of lifeboats and rescue boats, their launching arrangements, maintenance and drills. A part of any inspection includes checking the wires, falls, blocks, pulleys and shakes (sic).

In December 2018 Maritime NZ also published an Interim Technical Note on the 'Standard for the inspection of wire rope used on ship's lifting appliances in New Zealand'.

<https://www.maritimenz.govt.nz/content/rules/interim-technical-notes/ITN-11-18.pdf>

**MO-2010-204 004/13** *The Commission recommends that the Director of Maritime New Zealand consult port and harbour authorities and the New Zealand Maritime Pilots Association to develop a formal system for port and harbour authority employees to report vessel defects and crew performance issues. The purpose of the system should be to make information immediately available to maritime employees who can use the information to improve the safety of pilotage operations at subsequent ports. The purpose of the system should not be to replace the mandatory reporting of accidents and incidents, but instead to disseminate that information in a timely fashion to prevent similar accidents and incidents in the immediate future.*

- Maritime NZ believes we have implemented this recommendation.

Maritime NZ communicated with TAIC in regards to closure of this recommendation in 2017 on the basis that the NZMPA now has an online system for reporting vessel defects and crew performance issues. The informant has the option of emailing the information to MNZ at the time of completing the online form. In practice, pilots contact the next port by phone to report relevant information to their colleagues. Pilots are also reporting incidents using MNZ's online report system. MNZ meets regularly with NZMPA providing other opportunities to share information.

In addition to this, an initiative by NZMPA with involvement and endorsement by Maritime NZ has resulted in this good practice guide which was published in 2018.

<https://www.maritimenz.govt.nz/content/commercial/ports-and-harbours/documents/Healthy-safe-transfer-maritime-pilots.pdf>

**MO-2010-204 005/13** *Vessels' machinery installations and their control systems are complex, and regardless of how well maintained they are there will always remain the possibility that some part fails for some reason. For a vessel like the Hanjin Bombay that has only one propulsion system, the risk of losing control of the vessel caused by a single-point failure is higher than that for other vessels that have greater levels of redundancy built in to their propulsion and power-management systems. These types of vessel rely heavily on tug services when operating in confined pilotage waters.*

*Port of Tauranga Limited's Port and Harbour Safety system policy on the level of tug service did not adequately manage the risk of single-point failures leading to the loss of control of a vessel. This is a safety issue that could also be relevant to other New Zealand ports.*

*The Maritime Transport Act 1994 currently restricts the Director's powers to audit port*

*operators. However, the Commission notes that the Marine Legislation Bill currently before Parliament will introduce a new Part 3A to the Maritime Transport Act, which will provide clear authority for the Director to take action in relation to port operations.*

*The Commission recommends that, once the Marine Legislation Bill has been enacted and the new Part 3A of the Maritime Transport Act is in force, the Director address this safety issue with all port authorities, including Port of Tauranga Limited, when approving and auditing Port and Harbour Safety Management Systems.*

- Maritime NZ believes we have implemented this recommendation.

Maritime NZ communicated with TAIC in regards to closure of this recommendation in 2017 on the basis that provisions are now in place under the MTA for audit and inspection of port operators and to impose conditions as appropriate. Part 3A – local regulation of marine activity – was enacted on 23 October 2013.

Maritime NZ's regulatory interactions with ports include responding to reports of accidents and incidents, limited-scope audits and inspections and co-regulation under the auspices of the Port and Harbour Marine Safety Code.

Maritime NZ could decide to conduct an audit in order to provide assurance that the safety management systems, policies, processes and procedures in place at the port are functional and that the port is appropriately managing workplace health and safety risks in accordance with its obligations under both Maritime Transport Act 1994 (MTA) and Health and Safety in the Workplace Act (HSWA).

An audit and/or an inspection could be conducted pursuant to the Director's powers and duties in sections 33T & 439 of the MTA and Part 4 & section 190 of the HSWA respectively. An audit and an inspection could be conducted by Maritime NZ alone. Alternatively, a joint inspection team could be appointed by the Directors of Maritime NZ and WorkSafe New Zealand.

**MO-2012-201 003/13** *A number of the passengers and crew on the Easy Rider had a large physique. There were only 3 adult and one child lifejackets on board to share among 9 passengers and crew. The 3 adult lifejackets were not large enough to be securely fitted to those passengers and crew whom had a large physique. The Maritime Rules make provision for the carriage of children's lifejackets but are silent on the need for larger lifejackets to cater for people whom have a large physique. This is a safety issue.*

*Larger oversize approved life jackets are available in New Zealand, and at least one manufacturer will custom make a life jacket to suit.*

*Maritime Rules require that an approved life jacket be carried for every person on board every recreational and commercial vessel. While an approved life jacket is marked as complying with the appropriate standard, other life jackets are freely available for purchase that are not approved to the appropriate standard, yet they are often labelled as being approved to some other standard that is not accepted in New Zealand.*

*An unwary purchaser, particularly a recreational boating person, could be misled into thinking they were purchasing a life jacket approved to New Zealand standards. This is another safety issue.*

*The Commission recommends that the Director of Maritime New Zealand addresses these 2 safety issues in any educational campaigns by making it clear that not all life jackets that can be purchased in New Zealand are approved and meet the requirements of New Zealand Maritime Rules, and that persons who have a large physique should purchase or be provided with a life jacket that is appropriate for their physique. (003/13)*

- Maritime NZ believes we have implemented this recommendation.

Information on how Maritime NZ promotes the use of appropriate lifejackets is set out below.

- On its website Maritime NZ has a wide range of information that promotes the use of lifejackets by individuals.  
This includes sections on;  
Lifejackets: Choosing the right one to wear,  
Checking your lifejackets,  
Lifejackets for kids,  
Lifejackets for open and inshore waters, and  
Specialist lifejackets and personal flotation devices.  
<https://www.maritimenz.govt.nz/content/recreational/safety/lifejackets/>
- In addition to information available on its website Maritime NZ has run lifejacket campaigns on TV and in print and digital media that promotes the use of lifejackets by boaties.

**MO-2009-204 016/11** *It is a safety issue that there appears to be a disparity between the operating limits and designation of the Coastguard vessels and the types of extra curricular work the vessels are engaged in and the qualification requirements of the skippers of Coastguard vessels.*

*It is recommended that the Director of Maritime New Zealand considers some means of aligning the qualifications of Coastguard certificated skippers with the qualifications structure of Maritime New Zealand to ensure that the Coastguard certification better serves the needs of its skippers with respect to operating limits, designation of vessels and anticipated work to be undertaken.*

- Maritime NZ are in the process of implementing this recommendation

The introduction of SeaCert (Seafarer Certification) and Rule Part 35 (Approval of Training for Purposes of Part 32, Assessments and Examinations, and Industry Specific Certificates) has

made it clear that ISC (Industry Specific Certificates) skippers can only operate out to 12nm offshore, unless it is a Search and Rescue mission and they have permission from either the Rescue Coordination Centre or the Police. We are aware that Coastguards (CG) would like to operate beyond 12nm, for example to conduct a tow and that presently it is not permitted. The way to permit this is for the CG skipper to hold an SCO (Commercial ticket), but that requires considerable sea service which volunteers cannot easily achieve.

Maritime NZ are currently working with Coastguard to simplify processes for them to gain approvals to exceed limits when required on a case by case basis.

**MO-2009-201 002/11** *When a speed uplifting is granted by local government organisations or by Maritime New Zealand, this is effectively a reversal of measures taken to mitigate a previously identified risk of accidents occurring between craft travelling at high speed and other recreational water activities.*

*In the case of the Kawarau River, it is a safety issue that few additional measures have been taken to mitigate the additional risks that the speed uplifting has created. This situation probably exists on the Kaituna River and therefore could also exist in other waterways where the speed restrictions have been uplifted.*

*A second safety issue is that there is an inconsistency between Maritime Rules Part 91 where speed upliftings applied for under Rule 91.21 require a risk assessment, and then if successful, public notification and notification in the Gazette, and speed upliftings enacted by navigation bylaws that are not subject to risk assessment, approval by the Director, and publication in the Gazette.*

*The Commission recommends that the Director of Maritime New Zealand and the Chief Executive of Local Government New Zealand address these 2 safety issues through the appropriate forum with local government organisations with a view to achieving an appropriate level of safety and consistency in safety standards on affected inland waterways.*

- Maritime NZ believes we have implemented this recommendation.

Maritime NZ communicated with TAIC in regards to closure of this recommendation in 2017 on the basis that Maritime Rule parts 91.19 and 91.20 outline the requirements for speed uplifting for temporary events and on a permanent basis. For a temporary speed uplifting, the Director must be satisfied that the application does not endanger the public and that appropriate consultation has taken place. For a permanent speed uplifting the Director, or the relevant Regional Council, must be satisfied on the following points:

- a) The application has been publicly notified; and
- b) Affected persons have had a reasonable opportunity to comment on the application; and
- c) The applicant has provided evidence of the consultation undertaken with affected persons and any navigation safety concerns arising from the consultation process and any measures taken to address the concerns raised; and

d) Uplifting the speed limit will not unacceptably increase the risk to navigation safety or endanger persons using the waters that are the subject of the application.

MNZ has developed an internal process, formal application form and internal check sheet to ensure the consistency for assessing applications. Website content has also been developed to assist the applicants and MNZ has provided industry education around the changes.

**MO-2009-201 006/11** *Some commercial jet-boats on the Kawarau River have been travelling at unsafe speeds in contravention of Maritime Rules. A similar situation probably exists on the Kaituna River, and possibly on rivers in other areas as well.*

*It is recommended that the Director of Maritime New Zealand and the Chief Executive of Local Government New Zealand work with local authorities to address this safety issue (006/11).*

- Maritime NZ believes we have implemented this recommendation.

Maritime NZ (MNZ) communicated with TAIC in regards to closure of this recommendation in 2017 on the basis that rule Part 22 defines safe speed. Part 91 also sets out requirements for the speed of vessels. MNZ can take action against infringements of Rules 22.6 and 91.6. Bylaws are controlled by Regional Councils.

MNZ notes that this particular incident occurred in the Queenstown area, where MNZ maintained a particularly close working relationship with Marty Black, the Harbourmaster for Queenstown Lakes District Council. MNZ has had a number of conversations relating to safety aspects of commercial jet boats with Mr Black/QLDC.

While MNZ could not confirm that it has worked with all Regional Councils on this specific issue, it could confirm that it does meet with the Regional Councils on a regular basis to discuss safety issues.

**MO-2009-201 007/11** *Three of the 5 persons involved in this accident received serious head injuries and 2 of these died as an indirect result.*

*There are a number of other activities where the benefit of wearing a helmet has been recognised: cycling, snow skiing, motorcycling, white-water kayaking and white-water rafting to name a few. Given the protection they can provide, it would seem that wearing them on a personal watercraft would be wise and there may be a case for it to be mandatory.*

*Whether wearing a helmet in a jet-boat or any other craft capable of high-speed is practicable will require some research.*

*It is recommended that the Director of Maritime New Zealand work with the National Pleasure Boat Safety Forum and the New Zealand Jet Sports Boating Association on an educational campaign for the voluntary wearing of safety helmets on personal watercraft engaged in high risk water activities, with a goal of mandating their use.*

- No further action/Rejected

Maritime NZ does not believe there should be mandatory use of helmets on personal watercraft (PWC). A proposal requiring all operators and passengers on PWC's to wear helmets at all times was considered at the 25<sup>th</sup> National Pleasure Boat Safety Forum (the Forum) in October 2012. The Forum took the opportunity to consider an Australian report by Maritime Safety Queensland (MSQ). The research collated by MSQ indicates that although helmets are likely to reduce the number and severity of non facial head injuries sustained in PWC accidents, they may not have the intended effect of reducing the overall risks to personal safety for PWC riders.

The research identified that wearing a helmet while riding a PWC can cause accelerated fatigue; reduce the rider's peripheral vision; and may increase the risk of neck injury (compared to the more statistically remote likelihood of head injury from a collision involving PWC). The research also suggests that upper neck twisting force increases 160% at 48 kilometres per hour for a rider wearing a full face helmet.

In light of this research the Forum, and Maritime NZ decided that it could not support the recommendation that helmets should be a mandatory requirement for PWC riders. Maritime NZ will instead continue to work with commercial PWC operators to identify safety risks and implement safe management procedures which, depending on the activities and location may include the use of helmets.

**MO-2009-203 012/10** *There was no means of preventing the uncontrolled escape of fuel from the fuel tank vents when the boat was inverted and these vents were located above the emergency exit from the passenger compartment.*

**MO-2009-203 013/10** *That in the event of an emergency on board a commercially operated jet boat there was no easily-accessible quick-acting means to isolate electrical power and fuel systems including fuel venting arrangements. This could be an issue to address across the industry.*

- Maritime NZ believes we have implemented these recommendations.

When TAIC released its report Maritime NZ was in the process of replacing old Part 80 – Marine Craft Involved in Adventure Tourism, with new Part 82 – Commercial Jet Boat Operations – River. Part 82 is intended to limit the likelihood and consequences of serious harm to people on board commercial jet boats operating on rivers. It sets safe design and construction standards for jet boats, sets standards for safety equipment, and establishes safe operating procedures that must be followed by commercial jet boat operators and drivers.

Part 82 includes new provisions relating to emergency exits and venting requirements. Appendix 2 contains the following new provisions for emergency exits;

## **2.2 Provision for emergency exit**



2.2.1 A commercial jet boat operating on a braided section of a river must be fitted with an exit structure that—

- (a) allows emergency exit for all persons when the boat is inverted on solid level ground; and
- (b) is of sufficient strength to support the loads applied from a fully loaded commercial jet boat impacting on the embankment and rolling.

2.2.2 Commercial jet boats with enclosed canopies must be fitted with adequate means of emergency exits that are clearly marked.

Part 82 Appendix 2 also contains the following new provisions relating to fuel vents;

### **2.11 Petrol installation**

2.11.1 Petrol tanks must—

- (a) be vented overboard; and
- (b) be adequately secured; and
- (c) be constructed of mild steel, stainless steel, aluminium alloy, or other materials acceptable to the Director; and
- (d) be tested to a pressure equivalent of at least 2.4 metre head of water and evidence of the test must be made available to the Director; and
- (e) have a valve located in an accessible position that is capable of stopping the flow of fuel from the tank.

To ensure the provisions of Part 82 Appendix 2 are being met Maritime NZ has developed a Jet Boat Inspection Checksheet.

**MO-2009-203 011/10** *That distraction of jet boat drivers when driving at high speeds that require a high degree of concentration had not been identified as a risk to the operation and was the main factor contributing to this accident. This could be an issue to address across the industry.*

- Maritime NZ believes we have implemented this recommendation.

In 2012 new Maritime Rule Part 82 came into effect. Part 82 is intended to limit the likelihood and consequences of serious harm to people on board commercial jet boats operating on rivers. It sets safe design and construction standards for jet boats, sets standards for safety equipment, and establishes safe operating procedures that must be followed by commercial jet boat operators and drivers.

In Part 82 operational hazard has the same meaning as the term hazard in section 2(1) of the Health and Safety in Employment Act 1992 (the 1992 Act). The 1992 Act has been repealed and replaced with the Health and Safety at Work Act 2015 (the HSWA), however, through application of the Interpretation Act 1999, the definition of “hazard” under the HSWA can

apply. The definition of hazard in the HSWA includes “a person’s behaviour where that behaviour has the potential to cause death, injury, or illness to a person”. Driver distraction would fall under this definition so while Part 82 may not explicitly mention driver distraction it would fall under the category as an “operational hazard” as defined by Part 82 and the HSWA.

Part 82 also requires drivers to hold a New Zealand Commercial Jet Driver (River) Licence and to meet the competency requirements of the operation in which they drive. As part of this test applicants must demonstrate a number of procedures, such as identifying hazards, demonstrating a good knowledge of Part 82 and understanding driver’s responsibilities. An applicant must also describe what they would do in the event a distraction occurred.

**MO-2007-207 014/09** *Address with the port operator and the owner of the port safety management system the issue whereby the mandatory requirements of SOLAS and New Zealand Maritime Rules, including reference to guidelines such as the Code of Safe Practice for Solid Bulk Cargoes and the Code of Practice for the Safe Loading and Unloading of Bulk Cargoes, have not been incorporated into standard operating procedures, nor have they been followed.*

- Maritime NZ believes we have implemented this recommendation.

The International Convention for the Safety of Life at Sea 1974 (SOLAS Convention), as amended, deals with various aspects of maritime safety and contains, in chapter VI, the mandatory provisions governing the carriage of solid bulk cargoes. These provisions are extended in the International Maritime Solid Bulk Cargoes Code (IMSBC Code), which replaced the Code of Safe Practice for Solid Bulk Cargoes (BC Code).

Under Ministerial Direction Maritime NZ is deemed to be the Competent Authority within New Zealand for the purposes of the IMSBC Code, which is incorporated by reference into the SOLAS Convention.

Maritime NZ is to perform the function above, and including, but not limited to, the following duties:

- a. Assessment of cargo for safe shipment.
- b. Liaison, as required under the IMSBC Code, with the competent authorities of the port of unloading and the flag State.
- c. Authorisation of carriage of cargo.
- d. The issue of certificates under the IMSBC code to masters stating the characteristics of the cargo and the required conditions for carriage and handling of the shipment.
- e. As the competent authority of the port of loading to submit an application to the International Maritime Organization, within one year from the issue of the certificate, to incorporate solid bulk cargo into appendix 1 of the IMSBC Code.

In 2017 the new owners of Taharoa, Taharoa Ironsands Limited (TIL) and Maritime NZ agreed that a Safety Management System (SMS) peer review of the Port Taharoa offshore terminal should be undertaken by a panel (made up of a representative from Ports, Harbours and Maritime NZ). This review was undertaken in the 2017/18 financial year. The reviewing panel concluded that the SMS for this operation is consistent with the Port and Harbour Marine Safety Code (the Code). As a result Port Taharoa has been a member of the Code since 1 July 2018. This means Port Taharoa will be under the Code's standards against which the policies, procedures and performance of all parties involved in the operation of ports and harbours in New Zealand may be measured with respect to navigational safety.

The Taharoa Harbour SMS includes requirements as outlined by the International Maritime Organisation's Bulk Carriers Code (BLU Code). The BLU Code provides guidance to ship masters of bulk carriers, terminal operators and other parties concerned for the safe handling, loading and unloading of solid bulk cargoes. The provisions of the BLU Code should be applied with due regard to the provisions of the IMSBC Code, where applicable.

**MO-2007-207 013/09** *Address the safety issue whereby the risk assessment for the Port of Taharoa that was in its draft form, after 4 years of development, did not follow the recognised methodology to classify and apply the appropriate measures to mitigate the risks. The safety management system that the risk assessment underpins must be regarded as fragile until an expert independent total review of it is made.*

- Maritime NZ believes we have implemented this recommendation.

Maritime NZ (MNZ) communicated with TAIC in regards to closure of this recommendation in 2017 on the basis that the inspection and audit of Port Taharoa operations was completed by two independent experts. The report was released in July 2015 to NZ Steel Mining Ltd (owner of the port at the time), the Harbour Master of Port Taharoa and a redacted version was released to the NZ Pilots Association. The inspection and audit had two components: a review of documentation; and an on-site inspection and audit of the operation at the Port of Taharoa. 42 recommendations were made to the Director of MNZ, 35 of which required action by the owner of the port at the time. TAIC was offered a copy of the report under section 12 of the TAIC Act 1990.

**MO-2007-206 001/08** *Take the steps necessary to ensure that all dumb barges with no persons on board that are used commercially for the carriage of cargo are brought within the framework of the maritime rules with regard to the issuance of load lines and the provision of stability information.*

- Maritime NZ are in the process of implementing this recommendation

Maritime NZ (MNZ) communicated with TAIC in regards to closure of this recommendation in 2017 noting that Section 3 of MR Part 46 (Surveys, Certification and Maintenance) applies to every NZ barge of 24 metres or more in length that carries, for hire and reward, any cargo, wastes, dredgings or other materials. Barges of less than 24 metres in length that do not carry people on board during the course of a voyage are not covered by Parts 46 or 47. However, the barge stability guidelines do apply. Further, as these vessels can only ever operate in a towed context, there are MOSS obligations on the operator of the towing vessel, which ergo apply to the barge when being towed.

Following a 2017 investigation of vessels that are excluded from MOSS, MNZ decided to remove these barges' exclusion from MOSS on the above basis and make it clear in Part 19 that where such barges are used in a maritime transport operation they must comply with stability guidelines and any other vessel related requirements, including those related to load lines and stability.

This issue has been added to the MNZ policy issues register to be prioritised and dealt with in the near future.

**MO-2003-201 033/03** *When conducting any review of Maritime Rule 40A, [Design, Construction and Equipment - Passenger Ships Solas] undertake a cost benefit analysis to consider any existing restricted limit passenger ships with totally enclosed engine spaces to be fitted with a fire detection system and a remotely operated fire extinguishing system in the engine space (s).*

*Where a cost benefit is demonstrated as positive, consider drafting an amendment to Maritime Rule 40A for the Minister's consideration.*

*Any amendment of the rule to be phased so that existing passenger vessels above 15 m, or carrying more than 36 passengers to be fitted with this equipment first*

- Maritime NZ are in the process of implementing this recommendation

This issue is being incorporated into a wider reform of Maritime Rules Part 40. The 40 Series Reform is a long-term, collaborative project that intends to ensure that the rules for design, construction and equipment for domestic (non-SOLAS) ships are fit for purpose.

The 40 Series team is in the 'exploring change' stage of the project – currently focused on the priority areas of: life-saving appliances, electrical standards, the survey process and fire-safety systems. The project is progressing well and as work on these areas is completed, other topic areas, including stability, communication and navigation, and watertight integrity, will be explored. We anticipate that formal public consultation on the draft rules will take place in mid-2024.

**MO-2003-201 025/03** *Draft an amendment to Maritime Rule 40A [Design, Construction and Equipment - Passenger Ships Solas] for the Minister's consideration, that new restricted limit passenger ships with enclosed engine room spaces should be fitted with a fire detection system and a fixed fire extinguishing system in the engine spaces.*

- Maritime NZ are in the process of implementing this recommendation

This issue is being incorporated into a wider reform of Maritime Rules Part 40. The 40 Series Reform is a long-term, collaborative project that intends to ensure that the rules for design, construction and equipment for domestic (non-SOLAS) ships are fit for purpose.

The 40 Series team is in the 'exploring change' stage of the project – currently focused on the priority areas of: life-saving appliances, electrical standards, the survey process and fire-safety systems. The project is progressing well and as work on these areas is completed, other topic areas, including stability, communication and navigation, and watertight integrity, will be explored. We anticipate that formal public consultation on the draft rules will take place in mid-2024.

## Appendix: Definitions

Response to issued recs	Definition	Further reporting required?
Accepted and implemented	The recommendation was accepted (wholly or in part) and has been implemented	No
Accepted	The recommendation was accepted (wholly or in part) and is being, or will be, implemented	Yes
Under consideration	The recommendation was neither accepted nor rejected. Further consideration is required	Yes
Rejected	The recommendation will not be implemented	No

Status of active recs	Definition	Further reporting required?
Implemented	The recommendation was implemented over the reporting period	No
Being implemented	The recommendation is in the process of implementation	Yes
Under consideration	The recommendation remains under consideration	Yes
No further action	The recommendation has been implemented in part, but no further action will be taken	No
Rejected	The recommendation was under consideration and it has been decided not to implement it	No