

# **Status of TAIC open recommendations**

***Half-yearly report***

***For the six months ended 30 June 2021***

# Summary

## **Purpose**

This report is an update from 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).

The information given is for recommendations that were open at 30 June 2021.

## **Contents**

The report is mostly information about the recommendations issued to the regulators in the aviation, rail, and maritime sectors. This information is supplied by:

- 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.

These agencies are reporting progress in implementation as a matter of good practice. TAIC has no mandate to compel recipients of recommendations to provide such information.

Numbers of open recommendations issued to the Ministry of Transport (MoT), State Owned Enterprises (SOEs), other government organisations (such as local government), and non-government organisations are also shown in the aviation and maritime sector reports.

TAIC has compiled the report from the information supplied.

## **Explanatory notes**

Explanatory notes are on the back page.

## Summary data

The table below shows summary data for recommendations TAIC has issued to the CAA, MNZ and the Rail Sector. It shows:

- recommendations issued and closed from 1 January 2021 to 30 June 2021 (left)
- the number open at 30 June 2021 (centre, shaded)
- the estimated time to closure for open recommendations (right).

	Recommendations issued & closed 1-Jan-21 to 30-Jun-21			Number open at 30-Jun-21	Estimated time to closure				
	Issued	Closed	Closed YTD*		Submitted to TAIC for closure	Within 12 months	1 to 5 years	More than 5 years	Not accepted/ no further action
<b>CAA</b>	3	0	0	52	43	6	2		1
<b>MNZ</b>	1	1	4	29		8	21		
<b>Rail total</b>	0	1	3	26	12	4	9	1	
Waka Kotahi NZTA				14	12		1	1	
KiwiRail			1	8		4	4		
MoT				2			2		
NRSS-E				1			1		
Local Govt NZ				1			1		

*\*For year ended 30 June*

# Aviation open TAIC recommendations at 30 June 2021

## Summary of open recommendations

The table shows the numbers of open recommendations by recipient in the aviation sector. The numbers for the CAA are also shown by area of activity.

Number of open recommendations	Issued to government organisations Regulator/MoT/SOEs/other							Issued to non-government organisations	
	Total	CAA	MoT	Airways	MetService	Other govt org	Est. closure within 12 months (CAA)	Not accepted (CAA)	Total
<b>Total</b>	<b>60</b>	<b>52</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>2</b>	49	1	16
Operations		4					2	0	
Airworthiness		2					1	0	
Aerodromes		1					1	0	
Air Traffic Control		1					1	0	
Licensing		1					1	1	
Submitted for closure		43					43	0	

## Status for CAA recommendations

In summary, 3 recommendations have been accepted and from the Authority's perspective should be submitted to the Commission for closure. 1 has been rejected and should be added to the 'Submitted to TAIC for closure' column. 1 recommendation requires clarification leaving 4 recommendations that have been accepted by the Authority but further work needs to be completed before they can be submitted for closure.

### Operations

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

**008/17 – 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 has accepted recommendation 008/17 and would like to submit this recommendation to the Commission for closure.

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.

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

**004/21 – 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 – 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 accepted recommendation 004/21 and would like to submit this recommendation to the Commission for closure. 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 will update the Commission when an educational article is published.

The Authority accepts the first clause of recommendation 005/21, but requires more clarification on the second clause;

'...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 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 – 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 accepted recommendation 012/20 and this recommendation can remain open until Advisory Circular AC12.1 is updated.

By accepting the final recommendation, the Authority:

- will expand the data descriptors of a parachute malfunction and recording specific information such as a line twist or tension knot
- will ask 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
- will be updating AC12.1 to ensure there is enough guidance for parachute occurrence reporting
- will review 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.

The Authority is in the process of updating AC12.1 and when a draft is made available for public consultation the Authority will notify the Commission.

## Licensing

**Report AO-2013-003, recommendation:**

**002/16 – Include the knowledge and training requirements of Special Federal Aviation Regulation No. 73, or an equivalent requirement, as a prerequisite for the issue of a Robinson R66 type rating.**

The Authority has rejected recommendation 002/16 and no further action is required. The Authority would like to submit this recommendation to the Commission for closure.

On the basis that the FAA has twice rejected the inclusion of the Robinson R66 model in SFAR 73, the Director will not implement the recommendation, but will continue to monitor advice from Robinson Helicopters and the FAA with respect to the operation of R66 helicopters.

## Airworthiness

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

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

The Authority has accepted recommendation 005/20 and this recommendation can remain open until Procedure (CP 21H-01) is complete.

Procedure (CP 21H-01) is currently in the final stages of being amended to address the concerns raised by the Commission, including a peer review action (assurance), and to elaborate on the criteria regarding conformity of aircraft (consistency). This is expected to be internally reviewed by the Authority by the end of July 2021.

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

#### **015/16 – 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 and this recommendation can remain open, subject to a cost-benefit analysis. CAA has considered some of the potential wider benefits of helicopter flight data monitoring and has carried out an internal Investment Logic Mapping (ILM) workshop to help inform future policy interventions.

A sector reference group has been formed through the Helicopter Association to aid engagement with stakeholders. An initial workshop with a group of operators was held in late July 2019, and there were further discussions with the reference group in August 2019. These discussions were centred around the potential benefits and barriers associated with the widespread implementation of helicopter cockpit cameras. Some valuable feedback was received at these sessions, and this will inform the development of an appropriate regulatory intervention.

In November 2020, the CAA Issue Assessment Panel agreed to an approach centred around the development of a package of non-legislative interventions to achieve the widespread voluntary uptake of cockpit cameras in light commercial helicopters. Work is progressing on this, and the CAA intends to engage with the sector on the preferred approach in the coming months.

## Aerodromes

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

#### **028/09 – 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 accepted recommendation 028/09 and work in this area is ongoing so the recommendation can remain open.

This recommendation has been open for over 11 years. 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. The Authority is planning and initiating a non-certificated aerodrome operator engagement strategy. There is direct engagement underway at Certificated un-attended aerodromes where counter rotating circuits are in place. This activity will evolve into a long term strategy over the next 12 months that will be subject to prioritisation against other more urgent safety concerns that may arise.

Work in this area continues to progress. 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. This will likely commence in the second half of this year.

## Air traffic control

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

#### **020/18 – Recommendation to raise public awareness of the visual flight rules (VFR)<sup>1</sup> 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 accepted recommendation 020/18 and would like to submit this recommendation to the Commission for closure. Engagement with the user group is ongoing. The Authority identified that rather than a GAP booklet (with a print of 2000) better coverage

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<sup>1</sup> The rules under which a pilot operates an aircraft using only visual reference (that is, without navigational aids).

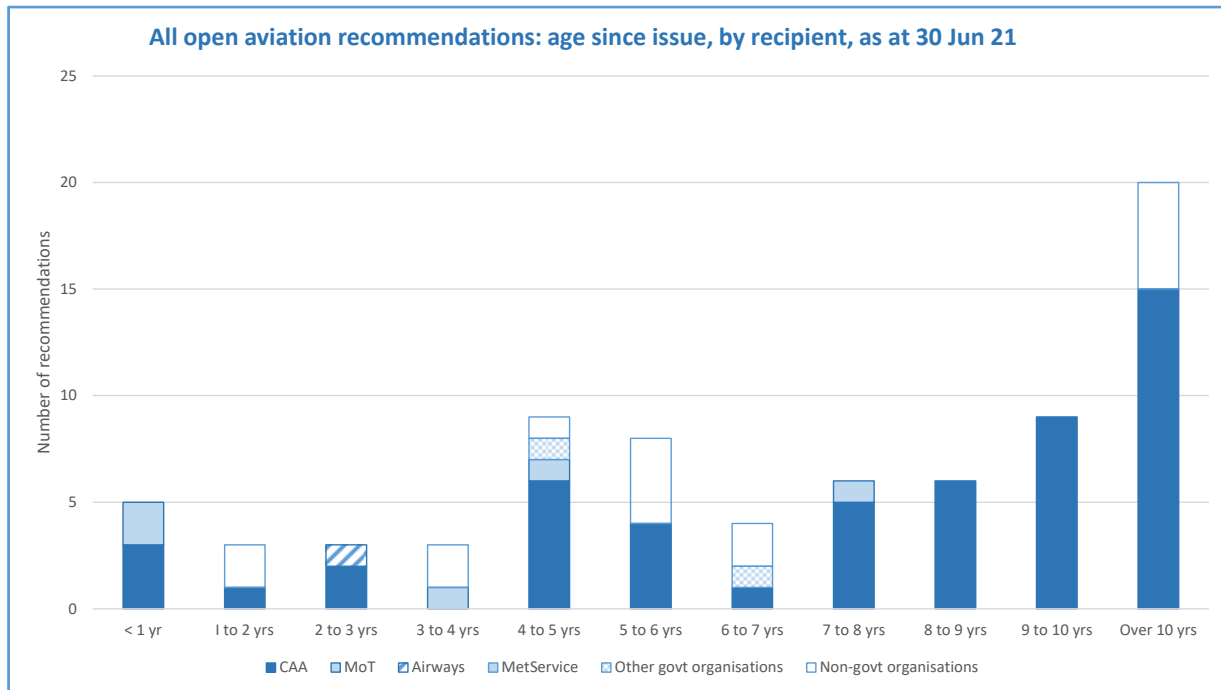


of this issue could be achieved via the Authority Flagship publication 'Vector' (15,500 copies and also available online). Accordingly, this was profiled in the Autumn 2020 (February) edition.

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.

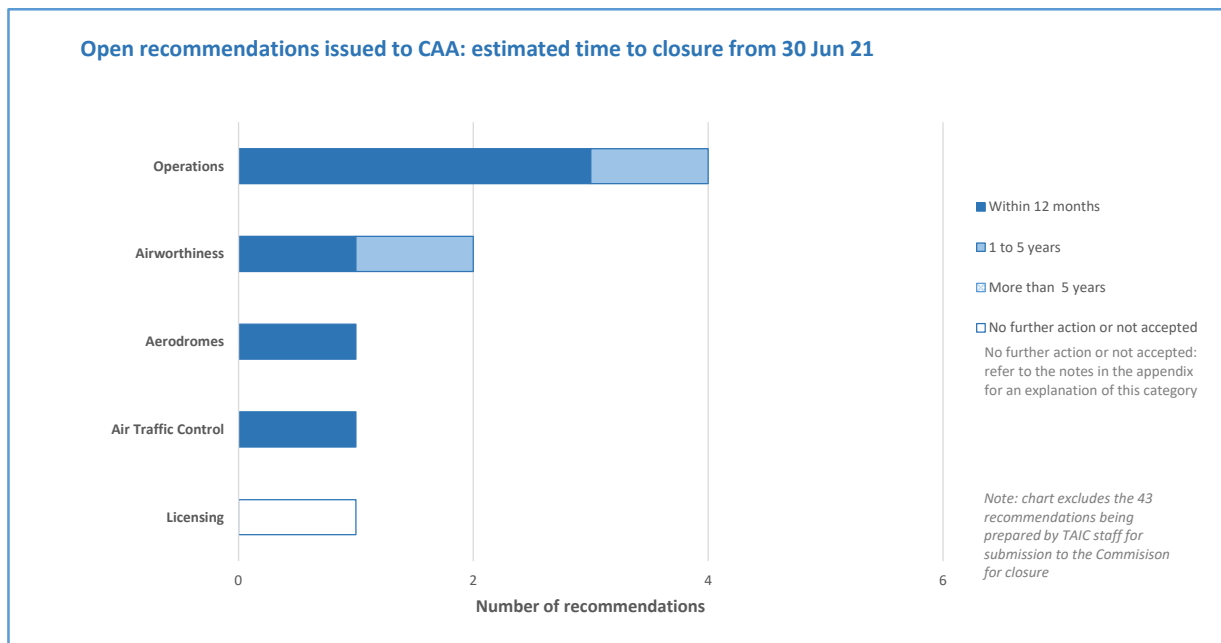
## Age of open recommendations

The graph below shows the age of all open recommendations by recipient in the aviation sector.



## Estimated time to closure for recommendations issued to CAA

The graph below shows the estimated time to closure for the recommendations issued to CAA.



# Rail open TAIC recommendations at 30 June 2021

## Summary of open recommendations

The table shows the numbers of open recommendations by recipient in the rail sector.

Number of open recommendation	Issued to government organisations							Issued to non-government organisations	
	Total	Waka Kotahi NZTA	KiwiRail	MoT	NRSS-E	Local Govt. NZ	Est. closure within 12 months	Not accepted	Total
<b>Total</b>	<b>26</b>	<b>14</b>	<b>8</b>	<b>2</b>	<b>1</b>	<b>1</b>	4	Nil	Nil
Level Crossings	8	6	1			1			
National Rail Systems Standards	6	3	1	1	1				
Impairment - drugs/ alcohol/health/fatigue	4		3	1					
Fire protection	3	3							
Training/Change Management	2	1	1						
Maintenance System Deficiency	1	1							
Signalling safety	2		2						

## Status of recommendations assigned to the rail sector

### Status of recommendations assigned to Waka Kotahi

**Level crossings:** The issue of short-stacking at level crossings is essentially a result of roads and railways being planned and built in close proximity to each other for efficiency purposes throughout NZ's history. The issue has been exacerbated over time as both road and railway networks have become busier, with longer road vehicles and faster trains. The optimum solution for many of the busy level crossings with a short-stacking issue would be to grade separate those crossings. However, there are significant civil engineering and design costs associated with this solution that are not practicable in most cases.

Although grade separation is not possible for so many of these intersections, there are still engineering solutions available. Over the 2018-2021 National Land Transport Plan (NLTP)

period, Waka Kotahi partnered with KiwiRail to improve safety of drivers and pedestrians by using treatments to prevent deaths and serious injuries at railway level crossings. We are delivering a \$26 million programme of level crossing safety upgrades on or near state highways. A key criteria for sites in this package was short-stacking. Furthermore, a business case is currently being considered for the 2021-2024 NLTP period to provide more funding to continue this work.

On top of this, the Land Transport Management Act (LTMA) has been amended to put in place a new planning and funding framework for the heavy rail track network owned by KiwiRail. KiwiRail is now required to prepare a Rail Network Investment Programme (RNIP) setting out what it intends to deliver over a three-year period, and the requested contribution from the National Land Transport Fund (NLTF). This change provides KiwiRail long term funding certainty and the ability to programme work further into the future. A part of the RNIP will be dedicated to Level Crossing investment and provides opportunities for KiwiRail and road controlling authorities to align level crossing NLTF bids, and subsequent programming of works.

Work continues to address these recommendations.

**Other open recommendations:** A further twelve recommendations have been submitted to the Commission for closure.

### Status of recommendations assigned to KiwiRail

**Medical Information for safety critical roles:** Legislation changes are required to allow the disclosure of personal medical record information to ensure the safe management of personnel in safety critical roles. Suggest that Waka Kotahi escalate to MOT to enable progress to be made.

**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.

**Fatigue Management:** Fatigue management project is still progressing. Full implementation will take some time to complete.

### Status of the recommendation assigned to the Ministry of Transport

**Impairment: drugs/alcohol/health/fatigue:** The Ministry of Transport is working with Waka Kotahi and KiwiRail to address 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.

The Ministry notes that NRSS/3 Standard for Health Assessment of Rail Safety Workers was updated in 2017 and clearly 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. 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. The Ministry will provide a decision on this recommendation in the next six months.

**National Rail Systems Standards:** In 2016, Waka Kotahi NZ Transport Agency contracted MartinJenkins to review the governance, operation and management of the national rail system standards (the NRSS) (the review). The review concluded that the NRSS have a useful and important role for KiwiRail as rail network owner and access provider for ensuring common and consistent approaches for operational and engineering interoperability for safe operation on its own network. The review also considered roles of various parties in the rail sector (Waka Kotahi, KiwiRail, other members of the current NRSS Executive, other industry participants, Ministry of Transport) have in the development, approval and review of the NRSS. The review made a number of recommendations around roles for the development, approval and review of the NRSS. These included changes to the NRSS membership, roles for KiwiRail, and roles for Waka Kotahi. The overarching conclusion from the report was there was no requirement for wholesale change to address issues and challenges with the NRSS. The Ministry understands that the rail industry periodically reviews the NRSS (through the NRSS executive) to ensure the standards within are fit for purpose.

### Status of the recommendation assigned to Local Government NZ

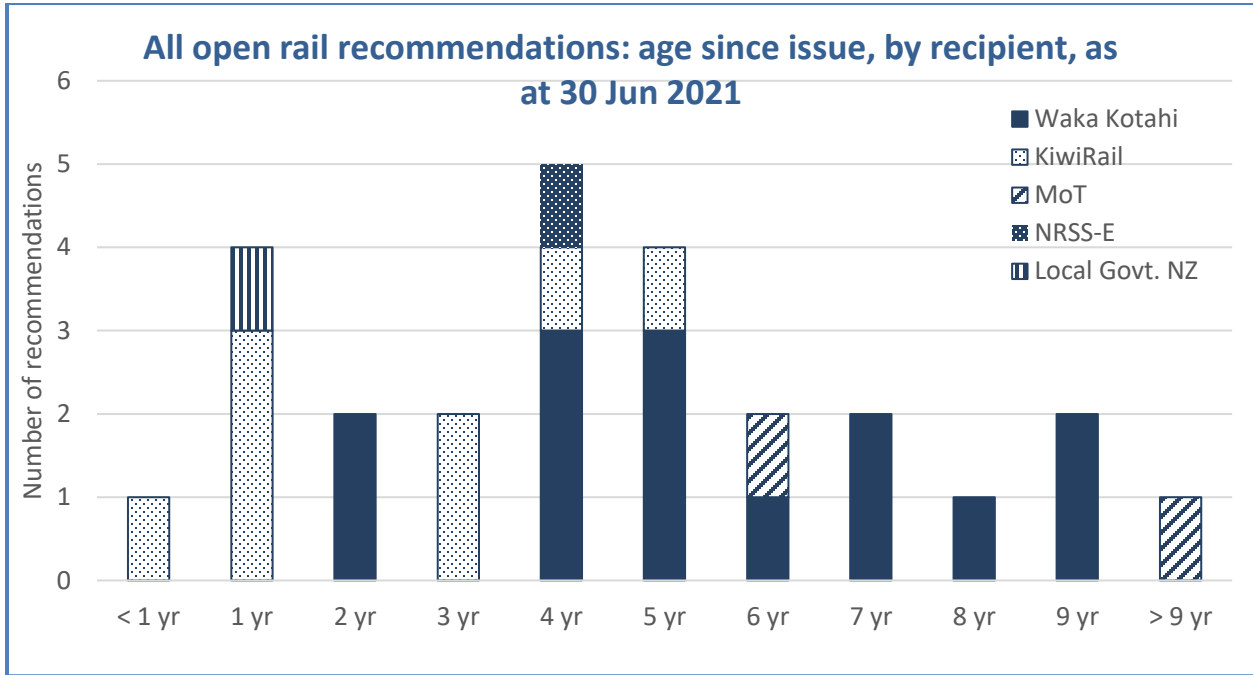
This is being incorporated into the road/rail interface workstream.

### Status of the recommendation assigned to the NRSS-Executive

KiwiRail is working on a review of the NRSS/6 Standard on Engineering Interoperability that will likely migrate to a network standard. Fire requirements will be covered in the NRSS/6 Standard update that is progressing, and any operational requirements arising from the last point will be covered in KiwiRail's tunnel safety plans.

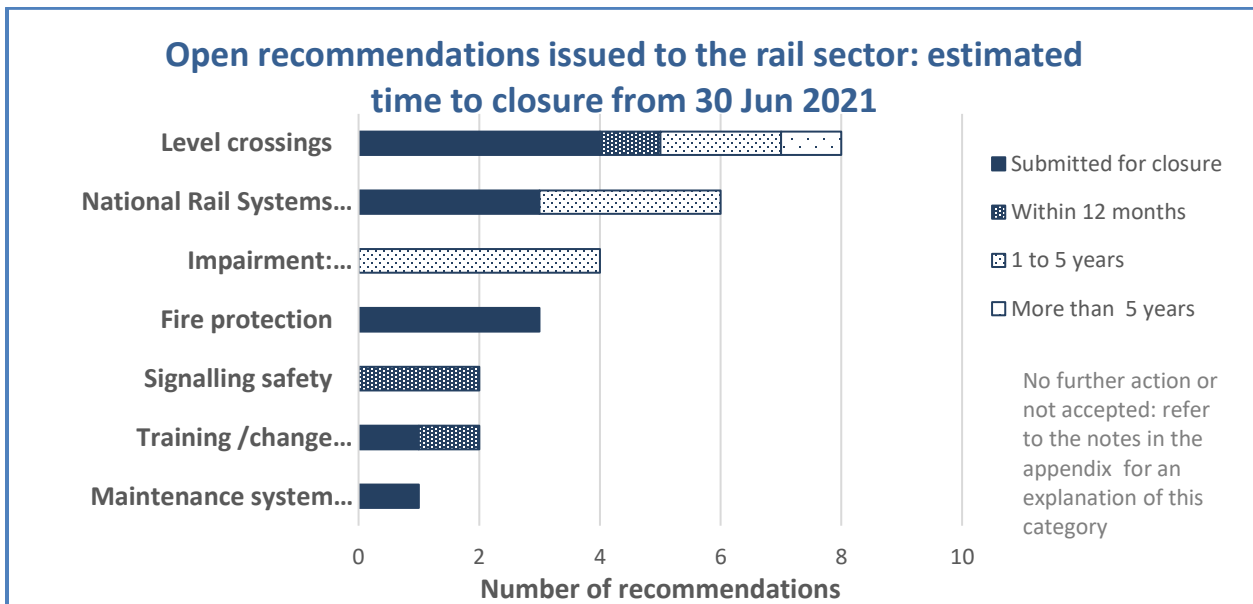
## Age of open recommendations

The graph below shows the age of all open recommendations by recipient in the rail sector.



## Estimated time to completion for recommendations

The graph below shows the estimated time for implementation of the recommendations issued to the rail sector.



# Maritime open TAIC recommendations at 30 June 2021

## Summary of open recommendations

The table shows the numbers of open recommendations by recipient in the maritime sector. The numbers for MNZ are also shown by area of activity.

Number of open recommendations	Issued to government organisations Regulator/MOT/SOEs/other							Issued to non-government organisations	Total
	Total	MNZ	MoT	KiwiRail	MetService	Other govt org	Est. closure within 12 months (MNZ)	Not accepted (MNZ)	
<b>Total</b>	<b>57</b>	<b>29</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>24</b>	8	Nil	36
Training or Education		5					1		
Maritime Rules		10					2		
Safety Management Systems		5					3		
Administrative		4							
Aids to Navigation		2							
Compliance		3					2		

## Status for MNZ recommendations

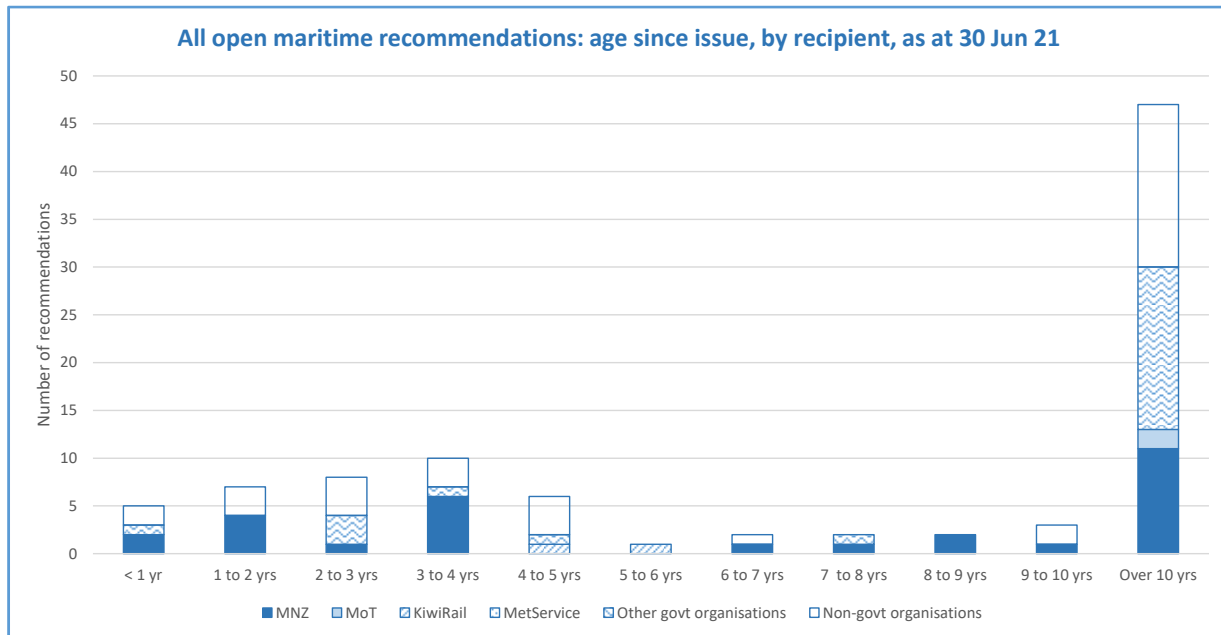
As at 30 June 2021, 29 TAIC recommendations issued to MNZ are open.

One new recommendation was received, and one recommendation was closed during the period since the previous six monthly report.

MNZ continues to work in close cooperation with TAIC to ensure safety issues are addressed and recommendations are closed.

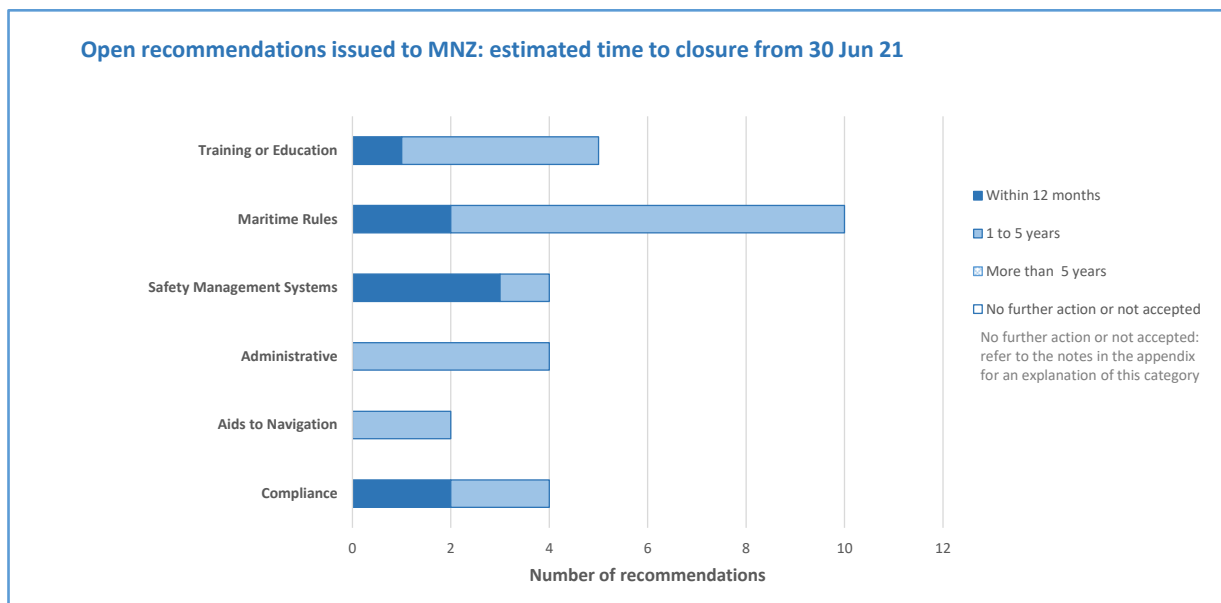
## Age of open recommendations

The graph below shows the age of all open recommendations by recipient in the maritime sector.



## Estimated time to closure for recommendations issued to MNZ

The graph below shows the estimated time to closure for the recommendations issued to MNZ.





# Appendix: explanatory notes

## Definitions

Government organisation	For the purposes of this report, a government organisation is a New Zealand regulator, SOE, or a commercial enterprise with more than 50% government ownership.
Not accepted	The recipient has not accepted the recommendation. For example, it might consider the recommendation is not relevant or not applicable. The Commission classifies such recommendations as 'open' or 'open, no acceptable action'.
No further action	The recipient has accepted the recommendation, and considers it has taken sufficient action to meet the intent of the recommendation; but the Commission does not agree that the intent has been fully met. The Commission classifies such recommendations as 'open' or 'open, no acceptable action'.
Classification of recommendations	<p>The Commission classifies recommendations as follows:</p> <ul style="list-style-type: none"><li>• Open: the recipient has accepted the recommendation, but has not yet submitted a request to close it.</li><li>• Open, no acceptable action: the recipient has not accepted the recommendation, or considers it has taken sufficient action (see 'no further action' above).</li><li>• Withdrawn/cancelled: the recommendation has been withdrawn in light of further information from the recipient.</li><li>• Closed superseded: the recommendation no longer applies because of changes in circumstances, for example, advances in technology, vehicle model no longer in use, or the recipient is no longer operating.</li></ul>

## ***Timeframes for implementation***

The time in which a recommendation can be implemented can vary considerably. Some recommendations can be implemented quickly because the action to meet its intent is specific and clearly identifiable, and relatively straightforward. Other recommendations may require considerable analysis and consultation to determine the best options, or they may depend on action by third parties. Recommendations requiring legislative change may take several years to implement.

## ***Historic recommendations***

In the rail sector, Waka Kotahi and TAIC have a well-established process for monitoring recommendations. The CAA and MNZ are working co-operatively with TAIC to close 'historic' recommendations. In the past, a lack of formalised monitoring processes resulted in some recommendations remaining open even though actions have been taken (or circumstances have changed) such that the regulators consider the intent of the recommendations has been met.