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**Submission to the Department of the Prime Minister and Cabinet on the Discussion Document: *Strengthening the resilience of Aotearoa New Zealand's critical infrastructure system***

**Introduction and Overview**

- 1 Christchurch International Airport Limited (*CIAL*) appreciates the opportunity to comment on the Department of the Prime Minister and Cabinet's (*DPMC*) discussion document titled "Strengthening the Resilience of Aotearoa New Zealand's Critical Infrastructure System" (*Discussion Document*), which forms part of the Government's critical infrastructure resilience programme.
- 2 *CIAL* supports the objectives and principles underpinning the critical infrastructure resilience programme, including the Discussion Document. *CIAL* agrees that a comprehensive and coordinated approach will help to ensure that Aotearoa's infrastructure system, as a whole, is more resilient to the range of factors identified in the Discussion Document.
- 3 In order to strengthen the overall resilience of the critical infrastructure system it is essential that the context for this review considers that Aotearoa New Zealand requires resilient regions, resilient networks, and resilient systems and supply chains supporting these networks, and consequently these regions.
- 4 At a high level, *CIAL*:
  - 4.1 agrees that regulatory reform to enhance the resilience of identified critical infrastructure is necessary and appropriate;
  - 4.2 supports a system-based approach with general consistency across sectors;
  - 4.3 considers that any proposed reforms should not place excessive financial burden or compliance obligations on critical infrastructure providers; and
  - 4.4 considers that integral to any proposed reforms is the function of central and local government agencies in supporting the resilience of critical infrastructure.

- 5 CIAL's submission firstly sets out CIAL's background and experience with emergency management. Drawing on that experience, the submission then addresses key themes arising out of the Discussion Document.
- 6 CIAL understands that this consultation is the first step of a detailed programme to reform the regulatory approach to delivering critical infrastructure resilience. This submission is accordingly made at a high level and is focused on big picture themes. CIAL is available to engage with the DPMC as required as the programme progresses.
- 7 CIAL supports the submission by the New Zealand Airports Association (NZAA).

### **CIAL's experience with emergency management and response**

- 8 CIAL owns and operates Christchurch International Airport (*Christchurch Airport*). Christchurch Airport is the largest airport in the South Island and the second largest airport in New Zealand. It connects Canterbury and the wider South Island to destinations in New Zealand, Australia, Asia and the Pacific.
- 9 CIAL is also currently assessing the feasibility of building a new sustainable airport in Central Otago to serve the fast-growing Central Otago and Queenstown-Lakes areas. CIAL's interest in exploring the prospect of new airport infrastructure is focused on meeting the Otago region's air capacity and connectivity needs with infrastructure that incorporates high levels of resilience from the outset, including the ability to support future low emissions aviation.
- 10 Airports play a fundamental role in responding to threats and hazards and often provide a base for civil defence and emergency services. CIAL's experience during various emergency situations has provided the following examples and insights:
  - 10.1 Christchurch Airport quickly became a lifeline during the Canterbury earthquake sequence in 2010 and 2011. CIAL's experience during that period was a lack of preparedness, coordination and understanding between the relevant agencies. Communications have since significantly improved, and planning for an Alpine Fault magnitude 8+ earthquake event has further enhanced the resilience of the system.<sup>1</sup>
  - 10.2 Christchurch Airport and its personnel also provided key assistance in the response to the 2017 Port Hills fires, both supporting the aerial fire fighting fixed wing and helicopter response, as well as deployment of CIAL's own trained airport fire crew and a fire response vehicle. CIAL's experienced emergency response personnel also provided support at the dedicated communications centres.
  - 10.3 The Christchurch mosque shootings in 2019 illustrated the focus of other agencies very quickly on other locations of concern and the limitations on

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<sup>1</sup> See <https://af8.org.nz/>.

their ability to assist critical infrastructure providers to resume operations during and after an emergency event.

- 10.4 During the COVID-19 pandemic, due to the reduction in passenger services (particularly wide-bodied international flights) which ordinarily facilitate freight movement, action was required to ensure freight links to and from the South Island and connecting to the rest of the world were maintained. The Government's International Air Freight Capacity scheme provided funding to airlines for dedicated freight flights. Christchurch Airport played a critical role in the scheme, enabling freight services that kept the South Island economy connected to the rest of the world.
  - 10.5 During the pandemic, Christchurch Airport also became a hub for a range of organisations working together to manage and respond to the unfolding events.
  - 10.6 The significant rain events in Canterbury and the West Coast in 2019 and the Canterbury floods of May 2021 caused significant damage to the land transport network and closed off areas of the South Island from the rest of the country. Aviation, specifically Christchurch Airport, was relied upon for freight and passenger travel while those areas recovered. The susceptibility of road and rail to extreme weather events highlights the importance of airports in providing a regional, national and global connection when the land transport system is compromised.
  - 10.7 The 2023 Auckland floods and Cyclone Gabrielle, and the impact on Auckland International Airport and Hawkes Bay and Gisborne Airports respectively, also saw Christchurch Airport play a role in assisting in the maintenance and recovery of the aviation network by accommodating flights, passengers and freight that could temporarily not use these Airports. The New Zealand Defence Force also flew critical supplies from Christchurch as part of the response. This highlights the important role of airports to support one another as part of an interconnected domestic and international network.
- 11 CIAL's key learnings from the above experiences include:
- 11.1 Though each of these events were largely isolated in nature, they reinforce the necessity for resilience to be viewed as a requirement for a resilient region, which is interconnected with other regions. With climate change and other impacts, the needs of these regions will change over time and the system must consider the needs of the region to respond to one or more of these events in that region, or in other regions.
  - 11.2 New Zealand's critical infrastructure system is, to a large extent, interconnected whereby outages or deficiencies in one sector can have a cascading effect and impact other parts of the broader ecosystem. For example, a lack of resilience at other key critical infrastructure assets could result in vital services or goods, for example aviation fuel, not being available to service the emergency network.

- 11.3 Investment in critical infrastructure (both regulation and individual investment) will be vital to ensure that the full ecosystem can continue to function as intended and that, where necessary, certain assets can 'stand-alone' and continue to serve communities even where other links in the chain are compromised.
  - 11.4 Preparedness, coordination and shared understanding between the relevant agencies are fundamental in responding to hazards and threats. 'Relevant agencies' necessarily include critical infrastructure providers and other central and local government entities and agencies.
  - 11.5 Critical infrastructure providers need adequate resourcing and advance planning to be able to support themselves in responding to hazards and threats. However, the importance of regulatory support, particularly from the Civil Aviation Authority (for airports) and other regulatory bodies, cannot be underestimated. For example, regulatory support is crucial to permit critical infrastructure operations to recommence following an emergency situation. Regulatory shortcomings and lack of assistance affect a critical infrastructure provider's ability to manage the resilience of its assets.
  - 11.6 A one-size fits all approach to all types of critical infrastructure and all types of 'pressure points' that can undermine their resilience may not be suitable in all cases. In particular, airports are unique infrastructure assets; while there are many independencies in the system, airports are not always dependent on other sectors to deliver resilience. They are generally a key initial lifeline serving communities immediately when emergencies occur, whereas the land transport network generally cannot recover from an emergency event as quickly. This is important to bear in mind with any one-size-fits-all regulatory approach.
  - 11.7 Resilience planning will necessarily involve investment decisions and there must be incentives for infrastructure providers, as well as government agencies, to prioritise this stream of work.
- 12 Ultimately, it will be crucial that the mechanisms for, and implications of, regulatory intervention are fully thought through. CIAL supports the Government's workstreams in this respect and its engagement with stakeholders and communities to deliver a system that is fit-for-purpose.

### **What is 'critical infrastructure'?**

- 13 CIAL supports the reference in the Discussion Document to the method of defining 'critical infrastructure' via the Emergency Management Bill, which is proposed to replace the Civil Defence Emergency Management Act 2002 (*CDEM Act*).
- 14 CIAL's experience to date is that the lack of a consistent national definition has led to different treatment of critical infrastructure in different situations. CIAL supports a consistent definition of 'critical infrastructure' to ensure clarity on what regulations and standards apply moving forward.

- 15 CIAL supports the proposed principles-based approach to developing a definition, and for critical infrastructure to be identified in the Emergency Management Bill and readily added to by way of gazettal. Given the evolving nature of infrastructure provision, the definition should be sufficiently flexible to incorporate existing infrastructure and upgraded or new infrastructure that is necessary to meet community demand.
- 16 In this respect, the Discussion Document appears to be focused on strengthening the resilience of existing critical infrastructure assets. In the airport context, research by the National Institute of Water and Atmospheric Research indicates that many existing airport infrastructure assets will be impacted by sea level rise in the next 30 years.<sup>2</sup> A range of climate change adaptation pathways will need to be considered, which may necessarily include the development of new airport infrastructure. New infrastructure has the benefit of being able to locate appropriately and incorporate technological and other advancements to achieve resilience. This contrasts with existing infrastructure which must, for the most part, manage existing constraints.
- 17 It is therefore important that the regulatory framework contemplates that a viable solution to managing resilience risks is the development of new infrastructure. CIAL's experience in assessing the feasibility of a Central Otago proposal has illustrated a unique opportunity for constructing highly resilient infrastructure from the outset. Any future regulatory intervention should recognise and provide for this possibility.
- 18 CIAL also supports the retention and implementation of the proposals in the Emergency Management Bill as an initial step towards improving resilience. CIAL does, however, note that the proposals in the Emergency Management Bill require the National Emergency Management Agency (NEMA) to be suitably resourced to fulfil its role in a strengthened system.

### **A system-based approach**

- 19 At present, the primary responsibility to deliver resilience rests with critical infrastructure providers. Assets which are 'lifeline utilities' under the CDEM Act must "*function to the fullest extent*" following an emergency. This elevates certain types of critical infrastructure and requires those owners and operators to invest in compliance with the CDEM Act. CIAL considers that comprehensive regulatory reform would apply more consistent standards across the ecosystem.
- 20 To that end, the Discussion Document proposes a system-based approach to ensure consistency across sectors, and to place obligations on critical infrastructure not currently in the system to increase their resilience and share information on how they are doing so. CIAL generally supports this approach, and considers that responsibility for compliance must be placed on individual critical infrastructure asset owners and suppliers to ensure the ecosystem as a whole continues to function.

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<sup>2</sup> *Coastal Flooding Exposure Under Future Sea-level Rise for New Zealand*, National Institute of Water and Atmospheric Research, March 2019.

- 21 However, it is important to recognise nuances required in a systems-based approach. For example:
- 21.1 Key risks and threats for some sectors may differ to others. Climate related factors are the most significant to airports but this may not be the case for others (for example, banks are more susceptible to cyber security factors). A system-based approach should be sufficiently flexible to require standards most relevant to each particular sector, whilst still ensuring the entire ecosystem is subject to some form of overall regulation.
  - 21.2 Any regulatory reform must extend to central and local government agencies (including emergency services) that support the operation of critical infrastructure. Reform may also need to extend to other entities that play a fundamental role in supporting critical infrastructure. As raised in the NZAA submission, jet fuel supply is a major vulnerability in the New Zealand aviation system. Areas such as this highlight broader interdependencies and may require specific regulatory attention in any future system.
  - 21.3 Smaller participants will need access to their own funding mechanisms. For the aviation sector, it is appropriate to recognise lifeline utility requirements of Tier 1 airports (such as Christchurch Airport) and to implement proportionate standards. However, the financial burden should not fall solely on Tier 1 airports to deliver their own resilience and also to support the resilience of others (such as regional airports).
  - 21.4 The system must also be cohesive and complementary to other types of reform that will impact critical infrastructure, such as the resource management and three waters reforms. Any regulatory requirements under a new resilience framework that support an infrastructure provider operating or developing its assets in a particular manner would need to be accounted for when resource management instruments are developed. This impact could assist in enhancing climate change resilience but would need to be carefully thought through in the development of any new system.
- 22 Ultimately, while Christchurch Airport has proven capable of 'standing alone' and delivering critical functions in adverse circumstances, CIAL's assessment of its vulnerabilities and ecosystem has highlighted interdependence with a range of suppliers, other critical infrastructure providers, and central and local government agencies. For CIAL to continue to effectively and efficiently operate Christchurch Airport when faced with hazards and threats, all parties in the 'chain' must be engaged in planning, preparing for, investing in, and achieving resilience.

### **Enforceable minimum standards**

- 23 New Zealand currently has no mechanism to implement and deliver minimum resilience standards for critical infrastructure. CIAL supports the establishment of enforceable minimum resilience standards as a tool for minimising weak links that could jeopardise the security of the overall critical infrastructure system.

- 24 As part of the development of minimum standards, CIAL considers that it will be important to map both primary and secondary interdependencies within the system, and to then place proportionate obligations on each. While there will necessarily be different levels of criticality and corresponding standards, there should also be recognition of obligations on secondary or abutting critical infrastructure providers to prioritise support for primary providers to reduce points of failure in the system.
- 25 The Discussion Document notes that, whatever form the minimum standards take, it will be essential that they do not conflict with or duplicate standards under other regulatory regimes. CIAL strongly agrees. Airports are already heavily regulated under the Civil Aviation Act 1990 and the CDEM Act. It is important that any new resilience framework does not impose a different or duplicated set of standards.

### **A new agency and accountability**

- 26 As the Discussion Document identifies, the existing system lacks accountability. CIAL considers it important that any new system incorporates clarity around the responsibilities of critical infrastructure providers, as well as central and local government agencies, for delivering a resilient ecosystem.
- 27 CIAL considers that establishing a new stand-alone agency responsible for developing and maintaining resilience standards, and monitoring the implementation of those standards, is a pragmatic approach to accountability. Given it is one of the most at-risk places in the world in terms of resilience, New Zealand needs sufficient dedicated expert resource in this area, rather than it being an ancillary function of existing regulatory agencies, or falling as a burden on organisations such as CIAL.
- 28 CIAL's experience with the Civil Aviation Authority, the existing regulatory agency for airports, is that competing priorities, together with limited funding as well as depth of expertise and experience in this area, can mean that emergency management planning may not be prioritised. This level of planning can impact on the speed of the response in an emergency.
- 29 If reform of this area results in the creation of a new agency (and a Minister), CIAL suggests that this creates the foundations to monitor other regulatory agencies (for example, Customs and Aviation Security) and to ensure cohesion across the board. CIAL supports compliance and audit requirements extending to all government agencies in the critical infrastructure ecosystem, as well as emergency management agencies such as the New Zealand Police and Fire and Emergency New Zealand.

### **Regulatory burden and implications of intervention**

- 30 The Discussion Document acknowledges that investment will be required to deliver more resilient critical infrastructure. There is also an acknowledgement that many critical infrastructure providers are already performing well and that an initial focus of any proposed reforms could be on critical infrastructure systems and assets that are not performing well, and that are not already subject to regulation.
- 31 CIAL would strongly support this approach. As outlined above, as a Tier 1 airport operator, CIAL is already highly regulated and it would be inefficient for regulatory

reform to duplicate that regulation and place further burden on airport operators. In addition, CIAL is already investing heavily in resilience across all facets of its business and operations.

- 32 Furthermore, as also outlined above, the key risks and threats faced by each sector may differ and it will be important to identify appropriate priorities in a new regulatory system. Performance standards need to be fit-for-purpose and implemented in each sector with input from experts familiar with the class of assets being regulated.
- 33 The Discussion Document refers to the Australian *Security of Critical Infrastructure Act 2018* as a potentially helpful template for New Zealand. To elaborate, infrastructure owners and operators in Australia now have to implement preventative obligations such as reporting and to implement risk management programmes. CIAL generally supports the reference to the Australian legislation for use in New Zealand. There is also an opportunity for learnings to be shared, for example cyber and terrorism are common threats to New Zealand's and Australia's ecosystems and a consistent approach is desirable.
- 34 CIAL does note that the Australian legislation has been amended twice in five years. It would be sensible to keep on top of any further changes and the implementation experience in Australia.

### **Information sharing**

- 35 CIAL supports the sharing of information in respect of preparedness and response to hazards and threats. The quality of preparation and coordination is critical and would be enhanced by a common approach that applies to all aspects of the ecosystem.
- 36 CIAL is therefore supportive of information disclosure, however is very concerned to ensure that commercial sensitivity and confidentiality are sufficiently protected. Any disclosure must be very closely managed and well-coordinated.
- 37 Information disclosure could accordingly be managed by the proposed stand-alone agency, who would then be able to appropriately share information for shared learnings as a 'single source of truth'. CIAL suggests that this could include a public and timely review of NEMA and Civil Defence Emergency Management operations, as well as the operations of a new agency after every event.
- 38 CIAL sees much benefit in reporting on hazards, threats and responses in a consistent way, but reiterates that care is needed as to what can and should be shared without compromising New Zealand's position internationally.

### **Capital investment into resilience**

- 39 CIAL considers that resilience planning requires specific incentives to build in resilience beyond standard capital expenditure.



- 40 For example, if CIAL were to fully implement Category III lighting at Christchurch Airport, this would allow it to function fully as a divert airport in the event of an emergency. This is however, a significant financial investment and it may be appropriate to provide incentives for this work to be undertaken to enhance the resilience of the South Island and of New Zealand.
- 41 CIAL considers that:
- 41.1 Government support either by way of funding or tax incentives could allow further resilience to be built into critical infrastructure assets beyond minimum compliance requirements.
  - 41.2 Without such incentives, it is unlikely that resilience will be built into investment decisions, given the competition for capital and investor demands.
  - 41.3 As well as incentives, there should be recognition that for regulated businesses, investment in resilience will be treated more favourably by the Commerce Commission.
- 42 CIAL considers that resilience investment should also extend to personnel, specifically capability and training for all those involved in this area across the full range of relevant agencies and organisations.
- 43 Across the emergency response sector there is presently a critical lack of depth in personnel, and this is compounded by a lack of adequately resourced training providers providing consistent training in this area. As new sectors are identified in the critical infrastructure system, it will be essential that sector capability is supported through an effective training network.

### **Cyber security and national security**

- 44 CIAL's submission has focused on physical hazards and threats, which are front of mind in the aviation context. However, CIAL supports the role of the National Cyber Security Centre to provide a national response to cyber threats and to support critical infrastructure providers, particularly where other nation state actors are involved.
- 45 In any new system, this will be dependent on confidential, mutual and timely sharing of appropriate information. In particular, CIAL:
- 45.1 supports information sharing and more stringent personnel criteria for security;
  - 45.2 supports more stringent criteria for security clearance for critical infrastructure assets; and
  - 45.3 agrees that shared understanding enables informed decisions in this area.
- 46 Ultimately, in terms of national security, airports are key points of entry for people and goods and potential entry points for refugees (both climate and geopolitical).

Resilience in this respect is critical and it requires the input and assistance of multiple agencies, not simply critical infrastructure providers.

### **Conclusion**

- 47 Overall, CIAL agrees that there is a need to reform New Zealand's existing regulatory approach to delivering a resilient critical infrastructure system. In this submission, CIAL has outlined its experience in responding to emergency situations and the key learnings for the development of a new regulatory system.
- 48 CIAL is happy to discuss any aspects of this submission with the DPMC.



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