

International Civil Aviation Organization

INFORMATION PAPER (IP/23)



ICAO

ICAO Asia and Pacific (APAC)
Twenty-Ninth Meeting of the Meteorology Sub-Group
(MET SG/29)

Bangkok, Thailand, 18 - 22 August 2025

Agenda Item 7: Environmental-related initiatives and impacts**CLIMATE CHANGE OUTREACH IN NEW ZEALAND**

(Presented by New Zealand)

SUMMARY

This paper describes activities in New Zealand aimed at sharing information on expected climate change impacts on the aviation sector.

1. INTRODUCTION

1.1 The Civil Aviation Authority of New Zealand (CAA NZ) organises the (usually) annual New Zealand Aviation Meteorology (MET) Symposium, bringing together meteorological service providers and the aviation user community to discuss important meteorological changes and trends.

1.2 The last two full MET Symposiums (2025 in hybrid format, 2022 online only) included presentations on climate change projections for New Zealand and the expected impacts on aviation.

2. DISCUSSION

2.1 New Zealand's State meteorological service provider, MetService NZ, provides the ICAO Annex 3 aviation meteorological services in New Zealand, while the Earth Sciences NZ¹ (known as the National Institute of Weather and Atmospheric Research, or NIWA, at the time of the 2025 Symposium) has responsibility for climate science.

2.2 The [first presentation](#) on climate change impacts to the MET Symposium forum was in 2022 by MetService NZ and focused on the likely medium to long-term aviation hazards related to climate change. The presentation was very well received by industry, but the feeling remained that the impacts of climate change were still far into the future.

2.3 New Zealand's national carrier, Air New Zealand, also made a [climate change presentation](#) to the 2022 MET Symposium, describing plans to meet their target of net zero carbon emissions by 2050.

¹ From 1 July 2025, the National Institute of Weather and Atmospheric Research (NIWA) and the Institute of Geological and Nuclear Sciences (GNS Science) were merged to create the Institute of Earth Sciences (Earth Sciences NZ), with MetService NZ to join initially as a wholly-owned subsidiary.

2.4 For the next full MET Symposium in February 2025², it was decided to take a different approach to providing information on the impacts of climate change. A [joint presentation](#) was developed by MetService NZ and NIWA scientists, to emphasise the impacts already being seen as well as what was expected to come with a continually warming climate. The aviation industry very much appreciated the presentation by MetService NZ and NIWA, with CAA regulatory inspectors also taking an interest – to help inform their risk and safety management discussions with certificated operators and aerodromes.

2.5 A [second climate change presentation](#) was made to the 2025 MET Symposium, a reprisal of a WMO Aeronautical Meteorological Science 2024 presentation by Dr Jonny Williams from the University of Reading, United Kingdom. Dr Williams' presentation focused on his research in quantifying the effects of climate change on aircraft take-off performance at European airports, with extension during discussion on potential implications for some New Zealand airports.

2.6 The two climate-focused presentations to the 2025 MET Symposium stimulated multiple discussions, in particular with airport companies and their association ('NZ Airports Association') for their infrastructure investments, resilience and long-term planning.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper.

² The MET Symposium was not held for 3 years due to earthquake strengthening work being carried out on the CAA NZ office building.