Message from Prof. Petteri Taalas

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For nearly three decades the World Meteorological Organization (WMO) has published annual reports on the state of the global climate. The reports were initiated because of concerns that were being raised regarding projected climate change. As we have increased our understanding of the climate system, through rapid advances in science and technology, we have been able to show that there have been significant increases in temperature over land and in our seas, accompanied by other changes including sea-level rise, melting of sea ice and glaciers, and changes in precipitation patterns.

Climate change pervades all aspects of society and ecosystems. And the aviation industry is certainly not immune from its damaging impacts. Climate change is a global concern that demands a global response. The Paris Agreement, brokered by world leaders at the United Nations Climate Change Conference of Parties (COP21) in December 2015, established long-term goals to guide all nations to, *inter alia*, substantially reduce greenhouse gas emissions to limit the global temperature increase in this century to 2 degrees Celsius while pursuing efforts to limit the increase even further to 1.5 degrees. The legally binding Agreement includes commitments from all Parties to reduce their emissions and to work together to adapt to the impacts of climate change. It also calls on the Parties to strengthen their commitments over time.

As evidenced by WMO's annual state of the global climate reports as well as the latest Working Group II contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)[2], it is fair to say that the alarm bells are not only ringing but they are getting louder.

Doing nothing is not an option. While the Coronavirus disease (COVID-19) pandemic of the past several years has caught the world's attention and has had a devasting impact on the aviation industry, more frequent and intense weather events that may be linked to climate change have continued unabated. Also, while the drop in air traffic during the pandemic resulted in a reduction of the aviation sector's fossil fuel carbon dioxide emissions, global atmospheric concentrations of major greenhouse gases, carbon dioxide, methane and nitrous oxide continued to increase in 2020 and 2021.

As the aviation industry aspires to recover from the COVID-19 pandemic in more economically-sustainable and more environmentally-responsible ways – with increased attention placed, for example, on greener fuels and the 2050 net-zero economy – one should also expect increased focus on climate change adaptation, mitigation and resilience.

The WMO is committed to supporting ICAO and wider industry partners in their efforts reduce the harmful effects of aviation on the environment and to mitigating the damaging impacts of climate change on aviation. Strengthened partnerships, both nationally and internationally, are key to success. Together, let's turn the challenges into opportunities.

1 The WMO is the United Nations specialized agency dedicated to international cooperation and coordination on the state and behaviour of the Earth's atmosphere, its interaction with the land and the oceans, the weather and climate it produces, and the resulting distribution of water resources.

2 The IPCC is the United Nations body responsible for assessing the science related to climate change. It was created by WMO and the United Nations Environment Programme (UNEP) in 1988 with the objective to provide governments at all levels with scientific information that they can use to develop climate policies.