Annex 1

Overview of ICAO, international air transport and meteorological service for international air navigation

1. About ICAO

1.1. The International Civil Aviation Organization (ICAO) is a UN specialized agency, established by States in 1944 to manage the administration and governance of the Convention on International Civil Aviation (Chicago Convention[1]).

1.2. ICAO works with the Convention's 191 Member States and industry groups to reach consensus on international civil aviation Standards and Recommended Practices (SARPs) and policies in support of a safe, efficient, secure, economically sustainable and environmentally responsible civil aviation sector. These SARPs and policies are used by ICAO Member States to ensure that their local civil aviation operations and regulations conform to global norms, which in turn permits more than 100,000 daily flights in aviation's global network to operate safely and reliably in every region of the world.

1.3. In addition to its core work resolving consensus-driven international SARPs and policies among its Member States and industry, and among many other priorities and programmes, ICAO also coordinates assistance and capacity building for States in support of numerous aviation development objectives; produces global plans to coordinate multilateral strategic progress for safety and air navigation; monitors and reports on numerous air transport sector performance metrics; and audits States' civil aviation oversight capabilities in the areas of safety and security.

2. Aviation's global impacts and modern air traffic growth

2.1. According to the ICAO Global Air Navigation Plan (GANP, Fifth Edition – 2016), air transport plays a major role in driving sustainable economic and social development. It directly and indirectly supports the employment of 58.1 million people, contributes over $2.4 trillion to global Gross Domestic Product (GDP), and carries over 3.3 billion passengers and $6.4 trillion worth of cargo annually.

2.2. Furthermore, global air traffic has doubled in size once every 15 years since 1977 and will continue to do so. This growth occurs despite broader recessionary cycles and helps illustrate how aviation investment can be a key factor supporting economic recovery.

3. Weather impacts on aviation

3.1. According to the International Air Transport Association (IATA) Safety Report 2016, airline operations may be completely suspended by severe weather in some parts of the world. Meteorological threats were identified as factors in 31 percent of accidents in 2016 and 31 percent of accidents during the period of 2012 to 2016. Unnecessary weather penetration was a factor in 7 percent of the accidents in 2016.

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[1] Convention on International Civil Aviation (also known as Chicago Convention), was first signed on 7 December 1944 by 52 States. It is now in its 9th Edition (2006) with 191 signatory States. Under the Convention, States have agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically.

3.2. The IATA report specifically noted that weather is considered to be a key contributing factor to loss of control in flight (LOC-I) accidents, with 36 percent of loss of control accidents having occurred in degraded meteorological conditions, in most of the cases involving thunderstorms and icing. Furthermore, poor weather conditions were reported to represent the largest component for environmental factors, being present in 49 percent of the accidents involving runway excursions.

4. Meteorological Service for International Air navigation

4.1. Meteorological service for international air navigation is governed by the (ICAO) provisions contained in Annex 3 to the Convention on International Civil Aviation.

4.2. Annex 3 sets out the core international Standards and Recommended Practices (SARPs) and the technical specifications for provision of aeronautical meteorological information. The Annex 3 provisions ensure the uniform application of meteorological services by States signatory to the Convention that are deemed necessary or desirable for safe and regular international air navigation. Annex 3 contains a range of meteorological products and services to fulfil a range of user requirements. This information enables those users to make sound operational decisions, including whether to enter or avoid the affected or potentially affected area and to plan optimum routes taking into account safety and efficiency considerations as well as environmental impacts.

4.3. While ICAO is responsible for defining and encouraging the provision of the services which civil aviation requires for safe, regular, economic and efficient operations, it is the responsibility of the WMO to specify the technical methods and practices recommended for use in providing the required aeronautical meteorological service.

4.4. To this end, ICAO and WMO have a formal working arrangement that ensures the appropriate definition of roles and responsibilities of the two organizations in the context of meteorological service provision for international air navigation.

4.5. The regulatory material contained in Annex 3 is, except for a few minor editorial differences, identical with that appearing in the Technical Regulations, Volume II - Meteorological Service for International Air Navigation, of the World Meteorological Organization (WMO).