



EASA Safety Information Bulletin

SIB No.: 2011-04
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- Subject:** Nuclear Emergency in Japan
- Applicability:** Until further notice, all flights to and from Japan by commercial air transport operators from EASA States of Operations.
- Ref. Publications:**
- Japan Aeronautical Information Services. Japan AIS : <https://aisjapan.mlit.go.jp/Login.do>
 - ICAO manual on volcanic ash, radioactive material and toxic chemical clouds, document 9691-AN/954 (ISBN 9194-888-8), second edition, 2007;
 - AEA guidelines on radio active contamination of aircraft and engines, 3rd edition, June 2002;
 - FAA AC20-48, 1966;
 - Council Directive 96/29/EURATOM of 13 May 1996 laying down basic safety standards for the protection of health of workers and the general public against the dangers arising from ionizing radiation;
 - CBRN DECONTAMINATION MULTISERVICE TACTICS, TECHNIQUES, AND PROCEDURES FOR CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR DECONTAMINATION.
- Background:** A crisis has occurred due to the 9.0 magnitude earthquake and tsunami in north-eastern Japan on 11/03/2011. A NOTAM is published when: "Release into the atmosphere of radioactive materials or toxic chemicals following a nuclear or chemical incident, the location, date and time of the incident, the flight levels and routes or portions thereof which could be affected and the direction of movement".
- The Japan Aeronautical Information Service (AIS) Centre issued a NOTAM dated 15/03/2011. A flight prohibited area has been established with a radius of 30km around the Tokyo Electric Power Company Fukushima No. 1 power-plant.
- The Japanese authorities have declared an INES rating of 5 for one of the reactors operated by this power-plant. INES is the International Nuclear and radiological Event Scale published by the IAEA (International Atomic Energy Agency). An INES rating of 5 means an accident with wider consequences than local. The INES ratings are described at: <http://www-ns.iaea.org/tech-areas/emergency/ines.asp>.
- The development of the situation can be regularly consulted on the IAEA site at: <http://www.iaea.org/newscenter/news/tsunamiupdate01.html>.

Although ICAO, the World Health Organisation (WHO), the World Meteorological Organisation (WMO), the International Maritime Organisation (IMO) and the IAEA have not issued travel restrictions to Japan, Operators may wish to conduct a risk assessment in accordance to safety management principles. Such risk assessment may consider the following elements:

- Relative to operations planning:
 - Monitoring of INES ratings;
 - Awareness of the relevant NOTAM;
 - Checking for the development of any radioactive cloud for example on the sites of the Japanese Volcanic Ash Advisory Centre (VAAC) (that may provide such information) or on the sites of meteorological offices.

- Relative to immediate effects on aircraft, crew and passenger safety:
 Although according to the ICAO document 9691-AN/954, immediate effects on aircraft, crew and passenger safety are unlikely, a number of aircraft Type Certificate (TC) holders have issued letters to aircraft operators. These letters may provide type specific information.

- Relative to decontamination measures:
 - Implementation of decontamination measures of aircraft, crew, passengers and freight in accordance with national legislation (including the possible obligation of reporting events) transposing the Council Directive 96/29/EURATOM of 13 May 1996 (http://ec.europa.eu/energy/nuclear/radioprotection/doc/legislation/9629_en.pdf);
 - Useful practical guidelines in relation to decontamination may be found in the following documents:
 - AEA guidelines on radio active contamination of aircraft and engines, 3rd edition, June 2002 <http://files.aea.be/Downloads/2002-042.pdf>;
 - FAA AC20-48, 1966 http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/D2641320BFD46E09862569B500769378?OpenDocument;
 - Military documents such as CBRN DECONTAMINATION MULTISERVICE TACTICS, TECHNIQUES, AND PROCEDURES FOR CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR DECONTAMINATION (notably its chapter 8) <http://www.fas.org/irp/doddir/army/fm3-11-5.pdf> .

Recommendation: There is no recommendation at this time.

The EASA will continue to monitor the situation in cooperation with EC, Member States, Foreign Authorities (e.g. FAA; TCCA) and International Organisations (e.g. ICAO, IATA, EUROCONTROL) and will update this SIB if and when necessary.

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