

Safety Information Bulletin

Operations

SIB No.: 2021-08R1**Issued: 08 May 2021**

Subject: Re-Entry into Earth's Atmosphere of Space Debris Object CZ-5B R/B (2021-035B)

Ref. Publications: None.

Revision: This SIB revises EASA SIB 2021-08 dated 7 May 2021 to provide updated information on the subject event.

Applicability:

EASA Member State (MS) National Aviation Authorities (NAAs), aircraft operators.

Description:

This SIB is issued to raise awareness on the expected re-entry into Earth's atmosphere of the large space object CZ-5B R/B (2021-035B).

The European Union (EU) Space Surveillance and Tracking (SST) experts have estimated that the debris will likely re-enter the Earth's atmosphere during the early morning of 9 May 2021, around 02:32 UTC. Object CZ-5B R/B has an estimated mass ranging from 17 to 21 tons and a length of about 30 m, which makes it one of the largest pieces of debris re-entering the atmosphere during recent years, therefore it deserves careful monitoring. It is unlikely, however, that the debris will impact over a populated area, an airport or a major air route.

Although it is impossible to predict exactly where over the Earth the parts will fall within a few hours of impact, at the moment the following time window is provided:

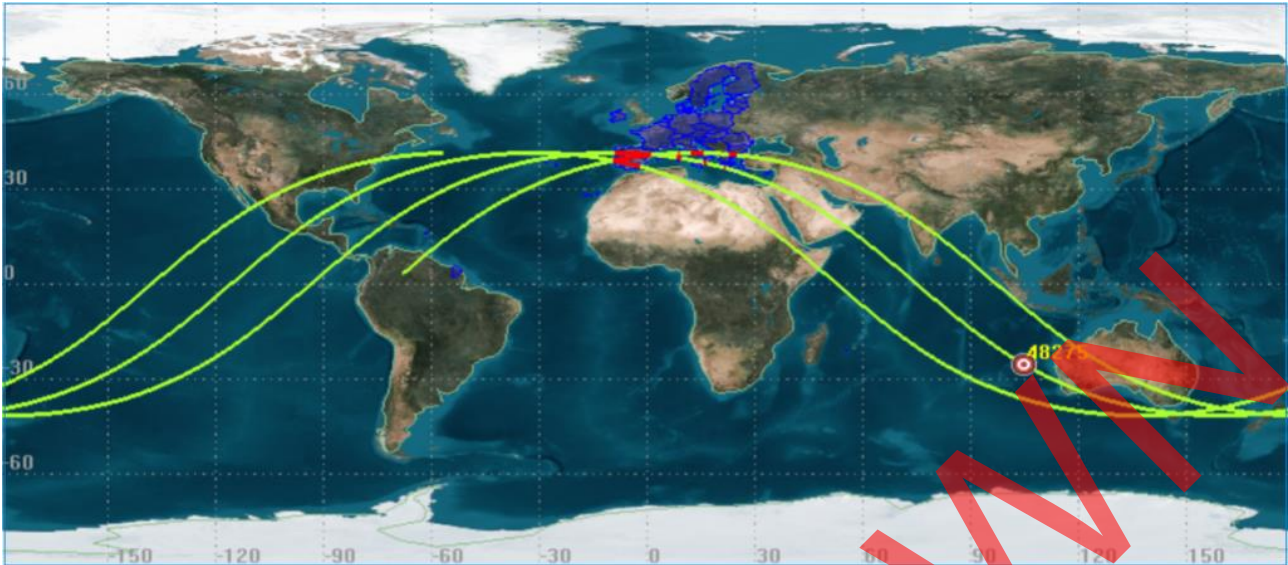
- Window Start: 09/05/2021 00:13:43.983 UTC
 - Window End: 09/05/2021 04:51:43.983 UTC
- EU SST Publish Date: Saturday, 8 May 2021 20:14
Areas of Interest: France, Greece, Italy, Portugal, Spain, Non-EU States

Note that the estimate indicates that only operations in southern Europe might be at risk, as the re-entry will most probably only affect the southern part of Europe, as shown in the EU SST graphic (Figure 1 of this SIB) below.

This is information only. Recommendations are not mandatory.



Figure 1 – Estimated Locations of Falling Debris



Source: EU SST (see links below)

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Safety Directive (SD) action under Regulation (EU) [965/2012](#), Annex II, ARO.GEN.135(c).

Recommendation(s):

EASA recommends MS NAAs and aircraft operators to:

- Monitor developments regarding the uncontrolled re-entry into Earth's atmosphere of large space object CZ-5B R/B (2021-035B) and adapt their risk assessment accordingly;
- Take into consideration the latest predictions published by the European Union Satellite Centre (SatCen) available at the [EU SST website](#), particularly the [monitoring webpage](#).

MS NAAs are also reminded that, in line with International Civil Aviation Organization Annex 15 Standard 6.3.2.3, a Notice to Airmen (NOTAM) is expected to be issued concerning the following information:

*“(m) presence of hazards not otherwise promulgated, which affect air navigation (including obstacles, military exercises and operations, intentional and unintentional radio frequency interferences, rocket launches, displays, fireworks, sky lanterns, **rocket debris**, races and major parachuting events)”*

Text of a NOTAM to be considered:

EFFECTIVE [XXXX] UNTIL [XXXX] UTC. AIRCRAFT OPERATORS ARE ADVISED THAT A POTENTIAL HAZARD MAY OCCUR DUE TO REENTRY OF SPACE DEBRIS INTO THE EARTH'S ATMOSPHERE. [NAME OF STATE] IS WORKING WITH RELEVANT AUTHORITIES TO ENSURE THE MOST CURRENT RE-ENTRY INFORMATION IS PROVIDED TO OPERATORS AS QUICKLY AS POSSIBLE. OPERATORS ARE ADVISED TO CHECK THE EU SST AVAILABLE INFORMATION DIRECTLY AT WWW.EUSST.EU. FURTHER NOTAMS

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WILL BE ISSUED IF SPECIFIC INFORMATION BECOMES AVAILABLE. IN THE INTEREST OF FLIGHT SAFETY, IT IS CRITICAL THAT ALL PILOTS/FLIGHT CREW MEMBERS REPORT ANY OBSERVED FALLING SPACE DEBRIS TO THE APPROPRIATE ATC FACILITY AND INCLUDE POSITION, ALTITUDE, TIME, AND DIRECTION OF DEBRIS OBSERVED.

Contact(s):

For further information, contact the EASA Safety Information Section, Certification Directorate,
E-mail: ADs@easa.europa.eu.

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