ULUSLARARASI TEMSİL
IFALPA BELGESİ

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SAFETY BULLETIN

21SAB10

5 May 2021

Re-Entry of Large Rocket Booster Between 8 and 10 May 2021

INTRODUCTION

On April 28, 2021, China launched the core of its “Tianhe” space station. While the launch was successful, the booster stage of the launching Long March 5B rocket was designed for an “uncontrolled” re-entry, and therefore the exact time and location of its return is unknown. As of Wednesday, May 5, the Aerospace Corporation (a defense think-tank) predicted the Long March 5B re-entry time to be 0407z on May 9, 2021, but with a ±24-hour window. https://aerospace.org/reentries/cz-5b-rocket-body-id-48275.

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2021-02 Re-Entry of Large Rocket Booster Between 8 and 10 May 2021

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Note that operations in Canada will not be at risk as the re-entry will only affect the area between 41.5° South to 41.5° North latitude.

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The most recent uncontrolled re-entry of a rocket was on March 26, 2021, when part of a SpaceX Falcon9 launch re-entered at night over the Closest 12-hour re-entry window for Long March 5B on 9 May 2021. Pacific Northwest. (Source: Aerospace Corporation)

Debris, including several 200lb pressure tanks, survived re-entry and struck the ground. The Long March 5B booster has an empty mass of 21,000 kgs (46,000 lbs). This is 7 times more massive than the March Falcon9 object and presents a commensurate increase in debris hazard.

Despite this hazard to people, structures, and aircraft, no US government agency is responsible for providing notification to the public. There does not appear to be any process to notify pilots (e.g., via NOTAM) of the debris hazard using the most updated information. ALPA maintains that this status quo decrease in safety is unsustainable as commercial space activities increase.

Pilots are advised to check the Aerospace Corporation website to maintain awareness of the possible geographic area for re-entry as estimates are refined, and to maintain awareness of possible debris during the projected reentry window. Re-entering debris may be easier to see at night, presenting as a group of meteor-like light trails from above the aircraft.

Captain Steve Jangelis Captain Doug Willey Captain Brian Teske, PH.D. Aviation Safety Chair Air Traffic Services Chair Commercial Space Operations, Integration Lead ALPA Air Safety Organization ALPA Air Safety Organization Air Traffic Services Technical Group

