\sim Case Studies and Accident Analysis \sim



JTSB Digests

JTSB (Japan Transport Safety Board) DIGESTS

Vol. 39 (Issued in March 2022)



Digest of Aircraft Accident Analyses

\sim To Enjoy the Sky Safely \sim Safe Flight of Ultralight Planes, etc.

1. Preface	1
2. Statistics on Accident and Damage Occurrence	. 2
3. Tips for Safe Enjoyment of the Sky	
\sim Analyses of Factors That Probably Contributed to the Accidents \sim	. 6
4. Case Studies of Accidents	. 10
5. Summary (Conclusion)	14

1. Preface

The ultralight plane (see the photo on the back cover), which is popular for sky leisure (sports), is said to have started with an engine mounted on a hang glider. It is a one or two-seater aircraft with a simple structure equipped with a landing (on water) device and a power unit that can fly with the pilot in a seated posture. Gyroplanes and self-built aircraft are added to this category and are called "ultralight planes, etc." Although they enable people easily access to the sky, unfortunately, one to five accidents involving fatalities or injuries occur each year.

Of the 71 aircraft accidents in the last five years, 17 (24%) were accidents involving ultralight planes, etc., which is almost the same number as that of small aeroplanes (15 cases, 21%) and helicopters (16 cases, 23%) (see Figure 1).

In this JTSB Digest, we will explore what is important for safe enjoyment of the sky through analyses of 54 accidents involving ultralight planes, etc. that were the subject of JTSB's aircraft accident investigations between 2001 and 2021, and for which investigation reports have been published.

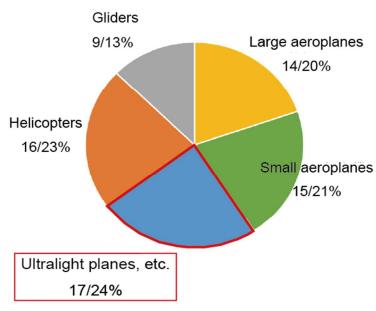


Figure 1 Number of Aircraft Accidents by Type of Aircraft (2017-2021)