

5. Summary (Conclusion)

Accidents involving ultralight planes, etc., result in serious damage

Out of total 54 accidents, 42 (78%) were accidents involving fatalities or serious injuries.

Fatal accidents	5 (28%)
Accidents resulting in serious injury	27 (50%)
Others	12 (22%)

Out of the 54 accidents, 47 (87%) were cases of large/medium breakage.

Accidents with large breakage	39 (72%)
Accidents with medium breakage	8 (15%)
Others	7 (13%)

The main factors of the accidents are as follows:

Improper piloting	40	Lack of Detection, Recognition and Knowledge	6
Weather effects	19	Flying at Low Altitude	6
Lack of Knowledge, Skill, and Experience	19	Deviation from Operational Limits and Lack of Checks	6
Defects in Aircraft and Parts	12	Flight Characteristics	3
Flawed Safety Management	11	Improper Assembly	2
Improper Inspection and Maintenance	9	Others	6

Let's judge and act on the safe side!

【Maintenance and Management of Aircraft】

- (1) Do you have access to the maintenance manual and understand its contents?
- (2) Are you conducting inspections and maintenance in accordance with manuals and manufacturer's or other instructions?
- (3) With aging in mind, do you carefully inspect and maintain even small abnormalities and changes in condition with the utmost care?

【Assembly of Airframe】

- (1) Do you have access to the assembly manual and understand its contents?
- (2) Are you assembling the parts in accordance with the manual?

【Before Flight】

- (1) Do you have access to the flight manual and understand its contents, including limitations and prohibitions?
- (2) Have you obtained the necessary air permits and plan to fly in accordance with the permit conditions and the flight manual?
- (3) Do you lack or have deteriorated the skills necessary for flying, such as not being familiar with basic control operations or having a blank in flying?
- (4) Do you check the maintenance status, fuel loading, weight and center of gravity position, and other items necessary for safe flight?
- (5) Do you check weather conditions and forecasts, paying particular attention to wind?
- (6) Do you observe safety management regulations and install safety equipment such as seat belts, helmets, life jackets, etc.?

【When Flying】

- (1) Are you able to maintain a stable attitude and speed?
- (2) Are you paying attention to the flight characteristics, avoiding abrupt maneuvers, and performing necessary and appropriate steering and throttle operations?
- (3) Are you properly monitoring the exterior and instruments to properly assess the status of the flight?

One way to reduce risk is to learn about risks from past accident cases and consider countermeasures. In addition to this Digest, please use the accident and serious incident investigation reports published by the Japan Transport Safety Board (JTSB) for case studies.

In addition, the Civil Aviation Bureau also disseminates safety-related information. Please also refer to these documents listed below.

Website of the Ministry of Land, Infrastructure, Transport and Tourism (Ensuring the Safety of Ultralight Planes, etc.)

https://www.mlit.go.jp/koku/15_bf_000073.html

A word from Director for Analysis, Recommendation and Opinion

While ultralight planes, etc. are popular for sky leisure, it is a matter of concern that the number of accidents in recent years has tended to be higher than that of small airplanes. Although there are various factors that contribute to accidents, I feel that it is important to stick to the basics, even though the assembly, maintenance, and operation of airplanes may change. I believe it is important to enhance safety in basic and commonplace actions while learning from so-called failed cases.

By the way, in the Accident Case 4 introduced on page 13, video footage taken by an eyewitness was helpful in determining the cause of the accident. In this way, taking video of flight conditions from a safe location on the ground allows you to look back on your own flight objectively, which is useful for improving your piloting skills, and can also be used to nip accidents in the bud by reviewing the situations when you got a fright or faced a gasp scene. I believe that taking and using video from the ground is also effective for safety.

We sincerely wish that you will use this digests and accident investigation reports to further improve the safety of your flights and enjoy the sky as much as possible.





Courtesy of Japan Microlight Aeronautic League

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