



Aviation Safety Council
Taipei, Taiwan

**0915 RAPID 200 ULTRA-LIGHT
VEHICLE FLIGHT ACCIDENT
INVESTIGATION REPORT**

Executive Summary

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On September 15, 2007, at around 1630, a RAPID 200 ultra-light vehicle with one operator and one passenger aboard, departed from an open ground north of LiMing Bridge in Fenyuan Township, Changhua County (approximate coordinates E120°27'59.0", N24°01'17.3") , when the vehicle was about 40 feet from the ground after takeoff, the propeller stopped rotating, drifted to the left and crashed on a ridge between fields on bearing 300 degrees, 400 meters from the aircraft takeoff position. The nose and wings of the vehicle were destroyed, the operator was severely injured and in a coma, bone fractures on both legs of the passenger.

Investigation Conclusions

1. The gap of carburetor float bracket of the accident vehicle was higher than the standard value, which might cause failure due to engine fuel rich during takeoff.
2. The specified mechanical fuel pump of the accident vehicle engine was not replaced according to the service bulletin (SB-912-053UL) issued by the engine manufacturer. The manufacturer did not provide vehicle operators with the relevant technical service bulletin, the vehicle operators did not actively query for relevant information neither.
3. The aero-engine installed on the accident vehicle was not certified, which could fail at any time, the operator should be familiar with relevant emergency procedures to keep safe when

dealing with of engine failures.

4. The accident vehicle operator did not conduct a forced landing in the direction of the departure or in the front field according to the emergency procedures after engine failed, causing the aircraft stalled and crashed.
5. The flight control system of the accident vehicle was normal after inspection. The damage of the aircraft was due to the impact to the ground without power.
6. The operator of the accident did not join any ultra-light vehicle organizations, and did not possess CAA-issued ultra-light vehicle license.
7. There was a qualified record of installation and examination by the manufacturer in the records of the accident vehicle, but there was no original test flight records and did not apply for examination to Civil Aeronautics Administration, CAA.
8. The accident vehicle conducted illegal flight activities in a venue without application.
9. The weight and balance of the vehicle was within limits.
10. No evidence showed that the accident was related to physical, mental or meteorological factors of the crew.

Safety Recommendations

To Civil Aeronautics Administration, CAA

1. Strengthen the propaganda of legal activities and the ban of illegal activities of ultra-light vehicles. (ASC-ASR-08-06-001)

To ULTRA-LIGHT VEHICLE ORGANIZATIONS

1. Conduct relevant activities according to relevant regulations of ultra-light vehicles. (ASC-ASR-08-06-002)
2. Actively inquire, understand and carry out relevant service bulletin of ultra-light vehicles. (ASC-ASR-08-06-003)
3. When using an engine without airworthiness certificate, it should be realized that the engine could fail anytime, and the relevant emergency procedures in the operation manual should be familiarized with and followed. (ASC-ASR-08-06-004)

TO IHLAVAN AIRPLANE S.R.O, CZECH

1. The control of test flight results of the aircraft, and attach test flight records when selling the aircraft. (ASC-ASR-08-06-005)
2. Provide the relevant service bulletin of the aircraft after sale. (ASC-ASR-08-06-006)

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