



**Aviation Safety Council
Taipei, Taiwan**

**0630 RANS S-6 ULTRA-LIGHT VEHICLE
FLIGHT ACCIDENT INVESTIGATION
REPORT**

Executive Summary

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On June 30, 2007, a RANS-S6 ultra-light vehicle, no registration number. At around 0850, departed from HongAn Airfield in Guanshan, Taitung, around 10 minutes later, the aircraft impacted the ground with nose down 255 meters southwest of the venue. The vehicle operator (did not possess ultra-light vehicle license, the vehicle owner) and the accompanied American member died after sent to the hospital, the vehicle was totally destroyed.

ANALYSIS AND CONCLUSION

1. The above photos and videos showed : 13 seconds before impacting the ground , the vehicle made a right steep turn , no photos or videos were available as evidences for the next 10 seconds ; 3 seconds after that , the attitude changed from climb to descend , and increasing till almost vertical , due to insufficient altitude and unable to correct , the vehicle crashed . Reveals: when the vehicle operator operated the ultra-light vehicle, the required safe altitude was unable to be maintained, leading to this flight accident.
2. The damage condition of the accident vehicle showed: the impact attitude was nose down, first impact point was the aircraft nose, and damages of wings and tail were caused by strong impact force of high velocity.
3. The flight control, power fuel systems etc. revealed no abnormality. The accident vehicle did not go through the process of examination and certification, no registration number,

and was conducting activities illegally.

4. When the aircraft conducted any operating items, relevant requirements from manuals such as the purpose, key points, maneuver techniques, safety regulations etc. of the practiced items should be understood and followed, the accident vehicle operator did not possess ultra-light vehicle operating license, and did not have training records of relevant academic subjects, technical subjects according to the regulations of “Ultra-light Vehicle Management Rule”.
5. The vehicle operator once applied to join some ultra-light vehicle association , after the discussion by the board of directors of the association , the application was rejected , reasons included : “personal independence of flight , hard to communicate with “ , “ use tape to patch aircraft coverings , coke not cleared ” , “ different fly concepts all the time” , “ flight skills need to be enhanced” etc.. It revealed the operator had some deficiencies in the maneuverability of the ultra-light vehicle and self-management; unsafe factors existed to the operation of the vehicle.
6. The accident vehicle was equipped with seatbelts and harnesses, forensic reports revealed that the vehicle operator and the accompanied American passenger only fastened their seatbelts.

Safety Recommendations

To CIVIL AERONAUTICS ADMINISTRATION, CAA

1. Strengthen to counsel all associations with the venue

applications, and assist to establish the instruction manuals for activities, and set up management mechanism for organizations. (ASC-ASR-08-02-001)

2. Continue to conduct trainings and examinations of academic subjects, technical subjects for operators of qualified ultra-light vehicle organizations according to relevant regulations, and conduct examinations, certifications and tracking management for ultra-light vehicles of the organizations. (ASC-ASR-08-02-002)
3. Strengthen the intensity of banning illegal activities such as “ultra-light vehicles without examining certifications”, “ultra-light vehicle operators without operating licenses”, “ultra-light vehicle activities without conforming to relevant regulations”, transact lectures and studies of relevant regulations when deemed necessary, strengthen the propaganda to ultra-light vehicle organizations. (ASC-ASR-08-02-003)

TO ULTRA-LIGHT VEHICLE ORGANIZATIONS

1. Establish “Activity Instruction Manual” according to relevant regulations of ultra-light vehicles, after approved by competent authorities and implemented accordingly, relevant activities can then be conducted, and practice management to members and vehicles to enhance activity safety of ultra-light vehicles. (ASC-ASR-08-02-004)
2. Strengthen to manage the protection measures for passengers to fasten seatbelts when conducting ultra-light vehicle activities. (ASC-ASR-08-02-005)

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