



**Aviation Safety Council
Taipei, Taiwan**

**DAILY AIR BELL-430 HELICOPTER
B55531 PASSENGER FLIGHT ROTOR
STRUCK TRANSPORT CAGE STEEL
CABLE AND CRASHED**

Executive Summary

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On May 8, 2000, at 11:23 am, a Daily Air helicopter B55531, aircraft type BELL-430, departed from Magong Airport under IFR (Instrument Flight Rules). After ferried to Taichung SN Locator they canceled IFR and changed to VFR (Visual Flight Rules) following C19 VFR corridor and landed at ChinShan Power Plant. After picking up six workers from Taiwan Power Company they took off again. Before reaching the destination, ChoAn Farm, and prepared to join approach from a spacious area south side of TaJia River valley, the captain suddenly found steel cable blocking in front of the aircraft, an immediate descent was made and attempted to avoid the cable, but the main rotors still struck the steel cable. The captain carried out Auto Rotation Procedure immediately and made forced landing on the grass south of TaJia River. After the aircraft landed, the fuselage tilted to the right and the belly faced up. After the aircraft became stationary, six passengers evacuated by them from the cabin, and the two flight crew evacuated subsequently. The time the aircraft landed was around 12:38 pm.

Eight members on the aircraft suffered from minor to severe injuries, among them the captain and two passengers were severely injured and the rest five suffered from minor injuries.

After the aircraft hit the ground, the main rotor bended and deformed, the fuselage structure deformed, the belly skin concaved, tail boom fractured and skid beam came off.

Probable Causes

The captain accepted this impromptu assigned duty without

information about airways, identification signs of temporary takeoff/landing field and peripheral obstacles, being unfamiliar with the destined landing field of ChoAn Farm, it crashed due to striking the steel cable of transport cage.

Contribution Factors to the Accident

1. The authority did not establish the implementation standards for helicopter temporary takeoff/landing field or publish the applicable regulations. Civil Aeronautics Administration, was in charge of examining applications of temporary takeoff/landing field (ChoAn Farm), but lacked for approving standards.
2. Civil Aeronautics Administration had not conducted on-site inspection for the applications of temporary takeoff/landing field within five years.
3. Civil Aeronautics Administration did not establish and renew the obstacle information along the VFR corridors for light aircrafts, such as high voltage power cables and transport cage steel cable.
4. Civil Aviation Act did not explicitly regulate inspection methods and operation related safety regulations for temporary takeoff/landing field of general aviation industry.
5. The schematic diagram of field measurements of the applications from Daily Air regarding to the dedication of ChoAn Farm as temporary takeoff/landing field could not comply with the actual circumstances.
6. When assigning impromptu duties, Daily Air did not follow the “Dispatch Operation Manual”, including takeoff/landing field,

en-route obstacles and any information that could affect flight safety.

7. The “Dispatch Operation Manual” of Daily Air lacked for considerations of briefing relevant flight safety information to the crew when dispatching an impromptu duty with unfamiliar route segments and fields, hence the pilots needed to conduct duty without sufficient and necessary information.
8. When PIC accepted the impromptu duty, he was not informed about the airways and obstacles around the temporary takeoff/landing field.
9. The Route Information Manual of Daily Air did not cover flight operation content of contract property, lacked for related information of the temporary takeoff/landing field required for flight crew briefing.

Safety Recommendations

To Civil Aeronautics Administration (CAA)

1. Examine “Heliports Planning and Design Standards “to comply with international standards, and establish a timely law-renewing mechanism. (ASC-ASR-01-07-001)
2. Establish the implementation standards of helicopter temporary takeoff/landing field as the basis of examination. (ASC-ASR-01-07-002)
3. Examine the consistency of contents and terminology in all the applications of “Regulation Governing the Management of Private Airfield”. (ASC-ASR-01-07-003)

4. Implement the on-site inspection operation for the application and the approbation of temporary takeoff/landing field. (ASC-ASR-01-07-004)
5. Actually track and manage flight operations of airlines according to the approved flight operation applications. (ASC-ASR-01-07-005)
6. Establish and announce references of en-route obstacle information of light aircraft VFR corridors for airlines. (ASC-ASR-01-07-006)
7. Include harness usage regulations into relevant laws. (ASC-ASR-01-07-007)
8. Enhance the supervision of seatbelt usage briefings and instructions. (ASC-ASR-01-07-008)
9. Enhance the supervision and implement maintenance operations of cabin seats. (ASC-ASR-01-07-009)

To Daily Air

1. Execute flight operations according to the flight operation applications approved by Civil Aeronautics Administration . (ASC-ASR-01-07-010)
2. Report actual measurement data of the temporary takeoff/landing field and draw sketch maps accordingly. (ASC-ASR-01-07-011)
3. Establish dedicated profile of CAA-approved airways and temporary takeoff/landing fields, demand flight operation personnel to study before performing related duties.

(ASC-ASR-01-07-012)

4. Demand associated members to effectively execute seatbelt usage briefings and instructions. (ASC-ASR-01-07-013)
5. Implement cabin seats maintenance operations.
(ASC-ASR-01-07-01)

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