

Attachment 15

to Operational Factors Group Chairman's Factual Report

ERA12MA122

**HELICOPTER
SUPPLEMENTAL CHECKLIST**

Helicopter Accident/Incident Supplemental Checklist

Company information

- Number of aircraft 7; 3 helicopters and 4 airplanes.
- Models flown 1 A109, 2 B206, 2 LR 60, 1 LR 31A, 1 LR55.
- Types of missions flown on demand charter, organ procurement, Forest Service fire management contract.
- Number of locations served 1 base of operation plus 1 base for forest contract
Other locations vary by charter demand (CONUS).
- General terrain conditions for operations varies – urban and rural with helicopter.
- Characteristic weather for operations helicopter – VFR only.
- Number of pilots that perform the same mission as the accident flight 2 FT, 2 PT.

1. Formal **risk management program** that the company had in place, if any:

Company had SMS program purchased through ARGUS International, Inc. Company used Flight Risk Analysis Tool (FRAT) form - required to be completed prior to each flight to score risk factors such as pilot experience, rest, duty time etc...

2. Method by which **risks** associated with the accident flight were evaluated by the:

Company?

Flight required to be released by an authorized individual. Not all individuals were flight operations personnel and releaser did not review flight planning and weather – only reviewed aircraft and pilot legality for flight. Flight risks were only reviewed by management if issue brought to their attention by pilot.

Pilot?

Required to conduct review and analysis of flight planning/weather data and complete FRAT form. Required to contact management pilot on call if any issues were identified.

3. Did the company have a (circle YES or NO)

Non-punitive safety/incident reporting or monitoring system

YES NO

Designated safety officer with direct access to senior management

YES NO

Anonymous safety reporting system – no formal ASAP system in place.

4. Company's procedure, if any, for pilots to make a **go/no-go decision**
Decision

Company manual indicates final authority is with the pilot in command and decision will not

be influenced by scheduling or management.

5. Was this procedure clearly defined and enforced by the company? YES NO

Except for manual reference in #4 above, no other indications. Interviews were inconsistent on this topic.

6. Company **standard operating procedures (SOP)** regarding the mission/circumstances of the accident.

SOP's generic, not specific to this mission. Operating manual indicates pilot was responsible to obtain weather data and perform flight planning. SOP's list authorized weather sources. Manual included operating minimums (VFR, night – ceiling 1,000 feet / visibility 3 miles.

7. Method of enforcement of **SOP's** by management?

Recurrent training / checking and surveillance by management.

8. Communications, if any, between the pilot and the company regarding the flight (before the accident)?

Phone calls coordinating the flight. Phone call advising company prior to departure.

9. **Operational oversight** in place for this flight?

Director of Operations had ultimate operational control. Flight “released” by company personnel authorized to do so. Flight conducted by company owner who was also Director of Operations.

10. Was this flight **local** or **remote**? Remote between helipads.

11. Company hiring criteria for pilots?

PIC – 2,500 hours total time and ATP with appropriate type ratings.
SIC – 1,000 hours total time and commercial certificate with instrument rating.

12. Flight Experience: Other than the required pilot time matrix in the eADMS report, how many flight hours had the pilot accrued in the following?

- Piston and/or turbine rotorcraft 3,646 hours, 1,648 in type
- With this company unknown; estimated 4,000 + hours
- On this mission type unknown; estimated 1,000 + hours

13. **Training**, if any, did the pilot receive in the following areas.

- Risk assessment and risk management
Some elements covered in ground school.
- Weather evaluation and inadvertent encounters with adverse weather
Discussed in ground school. Approved weather sources and minimums published in company manual.
- Formal aeronautical decision making (ADM)
unknown
- Transition to make and model
Ground school and flight deck familiarization.
- Mission specific training (for accident flight mission)
Unknown. He was company check pilot who flew and trained other pilots for this mission.
- Crew resource management
Included in company ground school.
- Terrain and hazard environment
Pilots indicated it was discussed in company ground school.

14. Was the pilot in training at the time of the accident? YES NO

15. If yes, what type of training? N/A

16. **Other helicopter models the pilot flew.** Agusta A109

17. **Previous history** of accidents, violations, or difficulty with the mission of accident maneuver.

Company history includes 3 previous accidents:

2002 – Eurocopter AS355 operating to off shore platform in Atlantic Ocean: 2 fatal, aircraft substantially damaged.

2007 – Learjet 21 dual engine failure and hard landing: no injuries, aircraft substantially damaged

2007 – Agusta A109 tail rotor struck bushes: no injuries, aircraft substantially damaged.

2008 – Learjet 31 struck deer on runway after landing: no injuries

Accident pilot history includes 1 accident:

2007 – Pilot of A109 tail rotor strike listed above.

18. **Safety equipment:** Check if the aircraft was equipped with the following equipment:

- Recording devices: If so what type: _____
- Proximity detection systems (i.e. Terrain Awareness Warning Systems)
- Night Vision Imaging Systems
- Wire strike protection system
- Crashworthy fuel system
- Helmets
- Fire retardant clothing/gloves
- Aircraft floats (over water)
- Personal flotation devices/life rafts/external life rafts
- Sonic locator (offshore)
- ✓ Emergency Locator Transmitter (ELT) (121.5 or 406)

19. **Preflight Planning** (if relevant) performed for the accident flight.

Regular company planning for flight included checking legality of aircraft and pilot. Pilot preflight planning unknown. No company record of pilot's preflight planning exists. Pilot's personal laptop was used to access online weather service (one not approved by company SOP).

20. **Weather information** available to the pilot prior to departure.

Information from company approved sources available via internet from home and/or computer at company hangar prior to departure. Telephone access to FAA flight Service weather briefing and AWOS/ASOS facilities was available along route and near destination. AWOS and ASOS available via VHF radio enroute.