

1. Continued

(Farris)

Crew was in process of pulling engine TECK which is accomplished with a real smooth application of power. The crew chief had just indicated that a minor oil drip was coming from the "C" box area. The aircraft was light on the gear when an oscillation was felt followed by loud thump and meshing of main rotor blades. Engines were shut down immediately, SAS was on.

Winds were 4 knots at 210°, no gusting. Aircraft at 220° heading.

RPM/Torques:

Rotor RPM - 235
#1 Engine N₁, 84.3
#2 Engine N₁, 84.8
Torque - on ground 200, in hover 480.

2. What is the length of each spar still attached to hub?

Have to find out individual lengths. The forward yellow blade is untouched and looks to be in good condition. Length of other spars are from 14 to 17 feet long. They are laying out blade pieces. There were no blade strikes on the fuselage.

3. Have you found all spar sections not attached to hub?

Not known at this time, some pieces of blade were thrown into swampy lake area, inaccessible.

4. Did blades intermesh?

Yes.

5. How did blades hit; forward hit aft or aft hit forward, and at what blade stations?

The aft hit forward. Blade stations unknown at this time, they will find out.

6. What is the condition of all dampers and attachments?

Forward - Yellow and red are serviceable. Green; 1/4" gouge above data plate, breather broken off, socket lugs broken off, blade thrust washer broken, a nut and the ISIS indicator broke off.

Aft - All are serviceable.

7. What are the damper part numbers and serial numbers?

Unknown, will research and find out.

8. Describe condition of all Thomas Coupling Adapters and bolts on the #8 and #9 drive shaft.

Drive shafting to include Thomas Coupling from "C" box forward were in perfect condition.

The Thomas Coupling immediately aft of the "C" box was shredded, the ears on adapter were bent toward the "C" box, the bolts were separated due to torsional stress. The Thomas Coupling going to the aft transmission and adapter were in good shape.

#8 and #9 drive shaft were in good shape except minor scoring on the shaft. Shock mounts between shafts destroyed.

9. Describe the condition of the aft transmission such as discoloration and attachment breakage.

No discoloration of aft transmission. There was no transmission mount breakage.

10. Can the aft transmission be rotated at this time?

Don't know, but will find out.

11. What is the condition of aft vertical shaft and thrust bearing?

Aft vertical shaft and thrust bearing look good.

12. What is the condition of the forward and aft pitch links?

Forward pitch links look good. Aft pitch links mangled.

13. What is the condition of the forward and aft swashplate and drive scissors?

Forward swashplate and drive scissors in good condition. Aft swashplate and drive scissors is unknown.

14. Where did the pylon structure break?

Break occurred at Station 534. Pylon caved in and to the left with the APU resting on the ramp.

15. What is the servicing history of the landing gear?

Unknown.

16. Is landing gear damaged?

Not a bit.

17. What are the tire pressures and oleo extensions?

Tire Pressures:

	<u>L/H</u>	<u>R/H</u>
Forward	84/86	84/75
Aft	84	84

Oleo Struts:

Forward	3 1/2"	6 5/16"
Aft	2 1/4"	12"

18. What is the condition of the aft gear swivel locks?

Landing gear swivel locks were locked at start of TECK, but not presently locked. (Hydraulic lines have been severed).

19. On what kind of surface was the aircraft standing?

Asphalt surface.

20. What was aircraft gross weight?

Records indicate the empty weight of the aircraft (at last weighing) is 21,551 lbs. The aircraft had full fuel and six people on board at the start of the MOC. (No cargo).

21. What parts were thrown far away from the aircraft?

Parts of blades were thrown up to 350 feet from aircraft (Caesar says 1200 feet).

Three score marks from 6 - 8 o'clock, 25 to 35 feet aft of aft left wheel.

Piece of blade gouged a hole 6 - 7" deep in asphalt 41°, forward and right of aircraft, out about 90 feet.

There may be some pieces of blades which will not be recovered as they may have gone into an inaccessible area.

22. How many hours have been flown since the fire incident last year?

30 hours.

23. What is the history of dynamic component changes since the fire incident?

To obtain information later and relay it.

24. What components, if any, were changed prior to last flight?

Engines and engine noseboxes and "C" box were changed during phase maintenance.

25. When were the rotors last dephased.

During phase maintenance. Just coming out of phase maintenance when this occurred.

26. Indication of Rigging difficulties.

Flight Controls O.K.

Had problem with engine control rigging but corrected before MOC.

Vertol's interest in participating in the investigation was being transmitted to the Accident Board President. We advised that Bob Orr and Carl Albrecht would be the Vertol team. Visas were being obtained and they should be able to depart Thursday.



I. Senderoff

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X2268
M/S P32-18