National Transportation Safety Board Washington, DC 20594

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Brief of Accident

Adopted 01/10/2000

SEA98FA077

None

File No. 1229 05/19/1998 HOPE, ID Aircraft Reg No. N98NW Time (Local): 10:15 PDT Make/Model: Garlick / UH-1H Fatal Serious Minor/None Engine Make/Model: Lycoming / T53-L-13B Crew 0 0 1 Aircraft Damage: Substantial Pass 0 0 0 Number of Engines: 1 Operating Certificate(s): Aircraft External Load Type of Flight Operation: Reg. Flight Conducted Under: Part 133: Rotorcraft Ext. Load Last Depart, Point: Same as Accident/Incident Location Condition of Light: Day Destination: Local Flight Weather Info Src: Pilot Airport Proximity: Off Airport/Airstrip Basic Weather: Visual Conditions Lowest Ceiling: None Visibility: 5.00 SM Wind Dir/Speed: Calm Temperature (°C): 21 Precip/Obscuration: Pilot-in-Command Age: 40 Flight Time (Hours) Certificate(s)/Rating(s) Total All Aircraft: 11700 Commercial; Helicopter Last 90 Days: 160 Total Make/Model: 6700 Total Instrument Time: UnK/Nr Instrument Ratings

The pilot reported that he had dropped off a load of chokers and was maneuvering to hook up to a load of logs when the engine began to make 'a weird squealing noise, followed by a constant series of compressor stalls, occurring about twice per second.' The airplane then lost all engine power, and the pilot performed a forced landing in a clearing. Post Crash Examination revealed that the No. 1 bearing (P/N:1-300-015-04; S/N:127AC) was heavily damaged. From observations of damage on the bearing raceways and the inner ring split faces, evidence indicated that both thrust and non-thrust sides of the inner ring had been misaligned, based upon ball path indications. Military records for the engine included an Unserviceable Tag. No evidence was found of specifics related to that failure code, nor was evidence found recording related corrective maintenance action

Brief of Accident (Continued)

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Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF

Phase of Operation: MANEUVERING

Findings

1. (C) ENGINE ASSEMBLY, BEARING - FAILURE

2. (C) MAINTENANCE, ALIGNMENT - IMPROPER - OTHER MAINTENANCE PERSONNEL

3. (F) INFORMATION INSUFFICIENT - COMPANY MAINTENANCE PERSONNEL

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

Findings

4. TERRAIN CONDITION - GROUND

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.

Failure of a misaligned main bearing in the engine. Factors include returning a previously unairworthy-tagged engine to service by the operator's maintenance personnel without sufficient information to identify and correct an unknown engine deficiency.