National Transportation Safety Board

Office of Aviation Safety Washington, DC 20594



ANC22FA041

MAINTENANCE RECORDS

Group Chair's Factual Report - Addendum April 16, 2024

A. ACCIDENT

Location:Kalea, HawaiiDate:June 8, 2022Time:1726 Hawaii-Aleutian standard timeHelicopter:Bell 407, registration N402SH

B. SUMMARY

On June 8, 2022, about 1726 Hawaii-Aleutian Standard Time, a Bell 407 helicopter, N402SH, operated by K & S Helicopters doing business as Paradise Helicopters, impacted a lava rock field near Kalea, Hawaii (HI) after an inflight separation of its empennage. On November 9, 2022, members of the Airworthiness Group examined the accident helicopter wreckage stored at Ellison Onizuka Kona International Airport (KOA) on the island of Hawai'i.

C. ADDITIONAL INFORMATION

The accident helicopter, N402SH, was airframe serial number (S/N) 53118. Section 6.0 of the Maintenance Records Factual Report provided information on the installation of a new tail boom assembly, S/N BP-1598 that was referenced from its component log card (**Appendix A, Figure A-1**). According to the component log card, the tail boom assembly was installed new onto airframe S/N 53118 on August 23, 2009, at an aircraft total time (ATT) of 5,780 hours.

A copy of the accident helicopter's logbook page that contained the maintenance entry for installation of new tail boom S/N BP-1598 showed the tail boom was installed new onto airframe S/N 53118 on August 23, 2006, at an ATT of 5,980.1 hours (**Appendix A, Figure A-2**).

Submitted by:

Chihoon Shin Aerospace Engineer - Helicopters

APPENDIX A

NOMENCLATURE		TAILBOOM ASSY					NOTICE: WHEN RETURNING ANY LIMITED LIFE COMPONENT TO BHTC/BHTI FOR ANY REASON IT IS MANDATORY THAT A VALID HISTORICAL SERVICE RECORD ACCOMPAN							
PART NUMBER 407-030-801-205D			_			THE COMPONENT								
SERIAL	NUMBER		BP-1598	3	-									
					I	HISTORICA	L SERVICE I	RECORD						
	INS	TALLAT	FION DAT	-						REM	OVAL DA	ТА		
DATE	INSTALLED ON A/C NO.		INSTALLED	COMPONENT HOURS/ RIN		COND	D REMOVAL DITION	DATE	REMOVED AT	COMP HRS.	COMP O/H SINCE O/H HOURS	,		
		BY (ACTIVITY)	AT	HOURS	SINCE O/H HOURS	96				SINCE NEW HOURS		REASON FOR REMOVAL		
			A/C HOURS	COMP. HRS.	COMP. HRS	INSP HOURS	RETIR. HRS / YEAR		A/C HOURS	COMP. HRS.	COMP. HRS			
				RIN		O/H HOURS	RETIR. RIN / DATE			RIN				
23-Aug-09	53118	K&S	5780.0	0.0	NEW	COND	COND			s				
		-	0.0	0.0	NEW	COND	COND				-		-10	
												1.1.2.5	1	
			1		1-1									
		-					1000	1.1.1.2		100				
									-					
				TEC	HNICAL	DIRECTIVE	S AND HIST	ORY OF	OVERH	AUL				
SIGNATURE AFFIRMS WORK									ERFORMED IN ACCORDANCE WITH APPLICABLE ORTHINESS STANDARDS					
TIME / RIN		HISTORY OF INSPECTION, OVERHAUL, REPAIR, AND APPLICATION OF TECHNICAL BULLETIN, SERVICE BULLETIN, AIRWORTHINESS DIRECTIVES, ETC									SIGNATURE		DATE	
		2 Lat												
								dia atta		1				
				_				141 1 1 1 2		1183.50				
								1 200		-				
						100 M2		1						
			The second second	0-0	an three all	See 19		in a francis						
				all sheets										
					N. Fr.			1.21.244						

Figure A-1. The component log card for tail boom S/N BP-1598.

KSHEI OPTERS, INC.

OPERATIONS MANUAL

PAC 17.6 REVIS: 47: 7 DATE: 06-15-06

b.a. Paradise Helicopters b.a. Tropical Helicopters K&S HELICOPTERS, Inc. AIRCRAFT FLIGHT LOG													
A/C MODEL:	BELL 407		N # 402SH				A/C S	SN 53118	ENG SN: CAE-847132				
PILOT	TYPE FLIGHT	LNDG	SLD CYC		RIN	EN HOB		FLIGHT TIME	POWER CHECK DAILY	AIRCRAFT INSPECTIONS			
```	FLIGHT								PA	AD's25 HR @	6005.1		
<u> </u>					-		- 1		OAT	Engine150 HR @	6130.1		
							- 1		TORQUE	300 HR @	6280.1		
<u>_</u>									MGT	NEXT COMPO	DNENT DUE:		
							-		N1	@			
	Contraction and the				1	AN LAN	- alle	,,,,,,,,		@			
TOTALS FOR TODAY	ENG	LNDG	SLD	CYC	RIN	HOP	BBS	ACFT TT	COMPRESSOR	OIL AJ	DDED		
		LINDG	SLD	5811		598	0.1	5980.1	WASH	ENG			
TIME FWD	5980.1	-		3011						XMSN			
TODAY'S									INITIALS	TRGB			
T T EOD  # DISCREPANCIES / SIGNATURE						#	# CORRECTIVE ACTION / SIGNATURE / CERT. #						
								Installed TR Cearbox PN:406-040-400-117FM, SV: A-754					
SN: A-754 TSN: 5980.1 TSO: 3553.1 for 0/H.							TSN: 5980.1, TSO: 0.0, 07 Sept. 2006 NOT: 5980.1						
22 Aug 2001 ACT: 5980.1						E.	2) Installed Tailboom Pri-407-530-801-205D, SN: 25-1598						
(2) Removed Tailboom PN:407-530-014-101, SN: 53119						2)	TSN: 1 (211) 23 Acra 2006 ACT: 5980.1.						
TSN: 4790.9 TR: 209.1 Serviceable for maint-conv.							(3) Installed Turbine PN: 23063354, SN: CAT-44188, TSN: 3743.6						
22 Aug 2006 HOT: 5980.1						6	T30:0.0, CSN: 3892, C/R 3000. 08 Sept. 2006 ACT : 5980.1						
(3) TT: 2012.1 / TSO: 1835.7 / TC: 1751 for 151: 2 M While Retire.						Atp							
23 Aug 200	23 Aug 200/0 ACTT: 5980.1							(+) Installed Hydromechanical Unit PN: 23.078031 SN: JCAMTOSGF, TSN: 1702.4 08Sept06 ACT: 5980.1					
(4) Removed Loaner HALL PN: 23078031, SN: JGALM0241							AP:						
TSN: 14,03.4.085ept 06 ACTT: 5980.1													
CONTINUED NEXT LOGT.													
I CERTIFY THAT I HAVE CHECKED THE PREVIOUS FIVE (5) AIRCRAFT FLIGHT LOGS AND HAVE COMPLETED AN ACCEPTANCE CHECK OF THE AIRCRAFT													
	Signature: CERT. # DATE: DATE: DATE:												

Figure A-2. The aircraft logbook entry for the tail boom installation.