

To whom it may concern;

I would like to go on record, and give an account of the recent issues we were having with the autopilot and subsystems on the S76D.

For the past few months (at least six), the helicopter has experienced numerous failures with the auto pilot. These issues can be corroborated by the other pilots, and the maintenance records.

The first 'failure' I experienced, occurred in VMC conditions, departing TA22, enroute to KDZB. Approximately 3 minutes into the flight, with the helicopter coupled up (on auto pilot, with vertical and lateral guidance), I noticed the helicopter starting a descent, uncommanded, initially 200' FPM, within 5 seconds, it had accelerated to 2500' FPM, with no audio, to indicate the loss of altitude. I turned decoupled the AP and flew manually to KDZB. On return, I coupled the helo and had no further issues.

This type of failure has happened on at least three occasions.

In addition to these type of failures, the AP has failed multiple times and for all of these failures, Sikorsky has always had the same answer: 'replace the MCD.' The aircraft is then test flown, and returned to service. After one such replacement, next flight, with passengers, 5 minutes into the flight, the AP1 failed. After resetting it, we continued. An hour into the flight the other AP failed, we deviated into Austin, and had another MCD replaced.

On yet another occasion, after replacing the part, for an AP1 failure, we were asked to fly the helicopter home (recovery). We asked if there was any chance the other AP2 could fail, Sikorsky said 'No', even though AP2 had been the one failing before this AP1 fail. We got to Waco, and the 2nd AP failed. The aircraft is reduced to basis stability at that point and is difficult to fly, impossible to hover. I declared an emergency and did a roll on landing into Waco. After another part replacement, we flew the aircraft back to Dallas.

The last failure I had was with passengers. The AP1, 5 min into the flight. We reset it, and continued. An hour into flight, it failed again and we diverted into Austin, instead of the helipad.

I strongly believe there is something wrong with the AP/SAS or subsystems. Sikorsky does not seem able to identify or fix the root cause.

These occurrences happened to other pilots in the department as well.

Al Godwin

Service Difficulty Report

1. Submitter Information

(a) Unique Control #: 2025F00236 (b) Difficulty Date: 06/19/2025
(c) Registration #: 36RP (d) Submitter Type: E - CARRIER PART 135
(e) Submitter Designator: (f) Submission Date: 10/7/2025 12:29:26 PM

2. Codes

(a) Operator Designator : (b) Operator Type : General Aviation
(c) JASC/ATA Code : 2210
(d) Stage of Operation : CR - CRUISE
(e) How Discovered : V - Visual
(f) Nature of Condition : F - FLT CONT AFFECTED
: J - WARNING INDICATION
(g) Precautionary Procedures: A - UNSCHED LANDING
(h) FAA Region : SW (i) District Office : 99

3. Major Equipment Identity

	Manufacturer	Model	Serial Number	Total Time	Total Cycles
(a) Aircraft	SKRSKY	S76D	761037	992	1568
(b) Engine					
(c) Propeller					

4. Problem Description

DURING PREFLIGHT CHECKS ON THE 18TH, THE AP1 FAILED, AND THE FLIGHT WAS CANCELLED. AFTER CONSULTATION WITH MAINTENANCE PERSONNEL AND SIKORSKY, THE CREW WAS ASKED TO RECOVER THE AIRCRAFT, TO HOME BASE (KDAL), FROM AUSTIN (KAUS), AND MEL'ED THE AIRCRAFT ON THE 19TH. APPROXIMATELY 35 MINUTES INTO THE FLIGHT, IN THE VICINITY OF WACO, TX, THE 2ND AP SYSTEM (SAS) FAILED. AN EMERGENCY WAS DECLARED AND AIRCRAFT LANDED AT KACT (WACO), WITHOUT FURTHER INCIDENT. THE AUTOPILOT CONTROL MODULE WAS REPLACED. NO FURTHER ISSUES WERE NOTED.

5. Specific Part or Structure Causing Difficulty

(a) Part Name : CONTROL MODULE (b) Manufacturer's Name : THALES
(c) Part Number : C13172AC06 (d) Serial Number : 418
(e) Part Condition: FAILED (f) Part/Defect Location: ZONE 100
(g) Total Time : 992 (h) Total Cycles : 1568
(i) Time Since :

6. Component/Assembly That Includes Defective Part

(a) Component Name: (b) Manufacturer's Name :
(c) Part Number : (d) Serial Number :
(e) Model Number : (f) Location :
(g) Total Time : (h) Total Cycles :
(i) Time Since :

7. Structure Causing Difficulty

(a) Body or Fuselage Station - From/At: To:
(b) Water Line - From/At: To:
(c) Crack Length : (d) Number of Cracks:
(e) Stringer - From/At: To:
(f) Butt Line - From/At: To:
(g) Wing Station - From/At: To:
(h) Structural Other: (i) Corrosion Level :

----- End Of Report -----



Programmed Maintenance Log

Date : 6/26/2025

Serial : 761037

N-Number : N36RP

Last Maintenance :

Replaced Failed #1 FCM, complied with #1 & #2 engine power checks.

With respect to the work performed and in accordance with Paradigm Helicopters, LLC
(86PA3360) General Operating Manual, this aircraft is found to be in an Airworthy Condition and is
APPROVED FOR RETURN TO SERVICE.

Signature : [Redacted]

A&P # : [Redacted]

A.F.T.T : 992.6

Landings : 1569

Airworthiness Inspections

Last Completed	Type of Inspection	Next Due
992.6	Hourly	1004.9
6/23/2025	Calendar	7/9/2025
1175	Landings/Cycles	9400 L
992.6	Engine Health Check	07/25/2025 1042.6
8/28/2024	14 CFR Part 91.411 (Alt / Static)	8/28/2026
8/27/2024	14 CFR Part 91.413 (Transpdrs)	8/27/2026
11/30/2023	14 CFR Part 91.207(d) (ELT)	11/30/2025
9/13/2024	14 CFR Part 135.185 (Reweigh)	9/13/2027
	Active MELs	
	None	
	Recurring AD's List	
Pending	ASB 76-55-16A	1500.0



Aircraft Discrepancy Log

Registration: N36RP

A/C Model: 576D

A/C Serial No: 761037

Date	Pilot	Manifest No.	A/C Time Out	A/C Time In
6/19/25	E. Torello	69385	990.9	992.6
Date: <u>6/19/25</u> Discrepancy: <u>#1 AP Autopilot imp.</u>				
☒ Operations Continued Per MEL/NEF Item No. <u>2210-01</u> MEL Class <u>C</u>				
Deferred By	Certificate No.	Date	Time	
Nick Guidry	AHP [REDACTED]	6/19/25		
Corrective Action:				
<u>Removed #1 AP FCM P/N C13172AC06 S/N 351 418. Removed #2 AP FCM P/N C13172AC06 S/N 351 and installed on #1 side. Installed new serviceable FCM P/N C13172AC06 S/N 541 on #2 side. Ref 576D AMM 22-12-02-900-801 & 22-12-02-420-001.</u>				
Repaired/Cleared By	Certificate No.	Date		
[REDACTED]	AHP [REDACTED]	6/25/25		
Date	Pilot	Manifest No.	A/C Time Out	A/C Time In
Date: Discrepancy:				
☒ Operations Continued Per MEL/NEF Item No. MEL Class				
Deferred By	Certificate No.	Date	Time	
Corrective Action:				
Repaired/Cleared By	Certificate No.	Date		

1. Approving Civil Aviation Authority/Country: FAA/UNITED STATES		2. AUTHORIZED RELEASE CERTIFICATE FAA FORM 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number AB5067206-5-00	
4. Organization Name and Address: THALES		THALES Avionics Inc. 7415 Emerald Dunes Drive, Suite 2000 FAR145 : L1IR073X Orlando, Florida 32822, USA EASA145 : EASA.145.6030			5. Work Order/Contract/Invoice Number: 4330459955	
6. Item	7. Description	8. Part Number	9. Quantity	10. Serial Number:	11. Status/Work	
1	FCM (FLIGHT CONTROL MODULE)	C13172AC06	1	541	REPAIRED	
12. Remarks: TSO: N/A TSN: UNKNOWN AMENDMENTS OUT: NONE REPAIRED in accordance with CMM 22-15-18 REV07 FEB19/2019 According to attached workshop report Notification No : 60000224 Certifies that the work specified in block 11/12 was carried out in accordance with EASA part 145 and in respect to that work the component is considered ready for release to service under EASA Part 145 approval Number : EASA.145.6030						
13a. Certifies the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safe operation ☐ Non-approved design data specified in Block 12.			14a. ☒ 14 CFR 43.9 Return to Service ☒ Other regulation specified in Block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.			
13b. Authorized Signature:		13c. Approval/Authorization No.:		14b. Authorized Signature:		14c. Approval/Certificate No.:
13d. Name (Typed or Printed):		13e. Date(dd/mmm/yyyy):		14d. Name (Typed or Printed): Mathias Cuello		14e. Date(dd/mmm/yyyy): 20/may/2025
User/Installer Responsibilities						
It is important to understand that the existence of this Document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an Airworthiness Authority different than the Airworthiness Authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her Airworthiness Authority accepts aircraft engine(s)/propeller(s)/article(s) from the Airworthiness Authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						



Airframe Logbook

23-Jun-25

N36RP - S-76D, S/N 761037

Facility:

MIRASOL SKY
LLC Certificate #:

Airframe Hours:

991.9

Airframe Cyc/Lndgs:

1568

Airframe Fic:

Airframe Rex:

THE FOLLOWING INSPECTION ITEMS / TASKS WERE ACCOMPLISHED:

TASK NUMBER	DESCRIPTION
1 55-00-00-200-001	HORIZONTAL STABILIZER MOUNT - CORROSION INSPECTION Update Note: REF CORROSION CONTROL MANUAL 53-00-00

WITH RESPECT TO WORK PERFORMED AND IN ACCORDANCE WITH PARADIGM HELICOPTERS, LLC (86PA3360) G.O.M, THIS AIRCRAFT IS FOUND TO BE IN AIRWORTHY CONDITION AND IS APPROVED FOR RETURN TO SERVICE.

Work Performed By: NICK GUIDRY

Certificate #: A&P



Airframe Logbook

25-Jun-25

N36RP - S-76D, S/N 761037

Facility:

MIRASOL SKY
LLC Certificate #:

Airframe Hours:

Airframe Cyc/Lndgs:

Airframe Fic:

Airframe Rex:

COMPONENT REMOVAL/INSTALLATION:

TASK NUMBER	DESCRIPTION	P/N OFF	S/N OFF	P/N ON	S/N ON	PART TIMES
1 31-60-00-01-82.02	NO. 2 FLIGHT CONTROL MODULE (FCM)	C13172AC06	418 RSN Removed: S- SWAP/TRBLE SHOOT	C13172AC06	541 Part Condition: Serviceable	

THE FOLLOWING ADDITIONAL MAINTENANCE WAS ACCOMPLISHED:

- #1 AP FCM FAILED
P/N Off: C13172AC06 S/N Off: 418 Reason Removed: B-FAILURE
1 P/N On: C13172AC06 S/N On: 351 Part Condition: Serviceable
Part Times:
Update Note: REMOVED FAILED FCM AND INSTALLED SERVICEABLE FCM ON #1 AP

WITH RESPECT TO WORK PERFORMED AND IN ACCORDANCE WITH PARADIGM HELICOPTERS, LLC (86PA3360) G.O.M, THIS AIRCRAFT IS FOUND TO BE IN AIRWORTHY CONDITION AND IS APPROVED FOR RETURN TO SERVICE.

Work Performed By: NICK GUIDRY

Certificate #: A&P



Engine No. 1 Logbook
30L0022-01 - PW210S, S/N PCE-BM0067

25-Jun-25

Facility: MIRASOL SKY Certificate #:
LLC

Airframe Hours: Airframe Cyc/Lndgs:

Airframe Fic: Airframe Rex:

Eng# 1 Hours: 992.6 Eng# 1 Enc: 1360

Eng# 1 Ens: Eng# 1 Rto:

THE FOLLOWING INSPECTION ITEMS / TASKS WERE ACCOMPLISHED:

TASK NUMBER	DESCRIPTION
1 71-00-00-760-801	NO. 1 ENGINE - DO A POWER ASSURANCE CHECK OF THE ENGINE PERFORMANCE TRENDING PURPOSES Update Note: PERFORMED IN ACCORDANCE WITH MM 71-00-00 REVISION 28.0.

WITH RESPECT TO WORK PERFORMED AND IN ACCORDANCE WITH PARADIGM HELICOPTERS, LLC (86PA3360) G.O.M, THIS AIRCRAFT IS FOUND TO BE IN AIRWORTHY CONDITION AND IS APPROVED FOR RETURN TO SERVICE.

Work Performed By: NICK GUIDRY

Certificate #: A&P



Engine No. 2 Logbook
30L0022-01 - PW210S, S/N PCE-BM0068

25-Jun-25

Facility: MIRASOL SKY Certificate #:
LLC

Airframe Hours:

Airframe Cyc/Lndgs:

Airframe Fic:

Airframe Rex:

Eng# 2 Hours: 992.6

Eng# 2 Enc:

1360

Eng# 2 Ens:

Eng# 2 Rto:

THE FOLLOWING INSPECTION ITEMS / TASKS WERE ACCOMPLISHED:

TASK NUMBER	DESCRIPTION
1 71-00-00-760-801	NO. 2 ENGINE - DO A POWER ASSURANCE CHECK OF THE ENGINE PERFORMANCE TRENDING PURPOSES Update Note: PERFORMED IN ACCORDANCE WITH MM 71-00-00 REVISION 28.0.

WITH RESPECT TO WORK PERFORMED AND IN ACCORDANCE WITH PARADIGM HELICOPTERS, LLC (86PA3360) G.O.M, THIS AIRCRAFT IS FOUND TO BE IN AIRWORTHY CONDITION AND IS APPROVED FOR RETURN TO SERVICE.

Work Performed By: NICK GUIDRY

Certificate #: A&P

 MIRASOL			Current A/W release date: <u>6/26/25</u>				Log #: <u>222</u>		
			Captain (print and sign): <u>Eric Tordb</u> [Redacted]				First Officer: <u>Ab Gudwin / Kent Swanson</u>		ACFT REG N36RP
Times	Aircraft TT		Landings	Engine times				Engine Cycles	
	HRS	1/10		#1		#2		#1	#2
				HRS	1/10	HRS	1/10		
BRT FWD	<u>993</u>	<u>6</u>	<u>1574</u>	<u>993</u>	<u>6</u>	<u>993</u>	<u>6</u>	<u>1361</u>	<u>1361</u>
Today	<u>3</u>	<u>7</u>	<u>4</u>	<u>3</u>	<u>7</u>	<u>3</u>	<u>7</u>	<u>4</u>	<u>4</u>
Total	<u>997</u>	<u>3</u>	<u>1578</u>	<u>997</u>	<u>3</u>	<u>997</u>	<u>3</u>	<u>1365</u>	<u>1365</u>

Leg #	1	2	3	4	5	6	7	8	9	10
Date	<u>3 Jul 25</u>	<u>3 Jul 25</u>	<u>6 Jul 25</u>	<u>6 Jul 25</u>						
From/To	<u>DAL / TAZZ</u>	<u>TAZZ / AUS</u>	<u>AUS / TAZZ</u>	<u>TAZZ / DAL</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
Hours	<u>1.5</u>	<u>0.4</u>	<u>0.5</u>	<u>1.3</u>						

Discrepancy

Corrective Action

1) Leg 4 During flight AP1 failed. Per checklist ATT was reset. AP1 was not restored. Both AP1 circuit breakers were reset. system was restored. <u>Kent C. Swanson</u> [Redacted]	1) 7/7/25 AGT 997.3 Performed AFCS test as per 576D-FCP-000, section 2.12. no defects noted [Redacted]
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2)	

Next maintenance due	
Date:	<u>7/9/25</u>
Hours:	<u>1004.9</u>
Landings:	<u>9400L</u>
Deferred item:	<u>N/A</u>
VOR Check:	<u>7/15/25</u>

VOR Equipment Check			
☒	☐	☐	☐
DUAL	VOT	GND	AIR
VOR #1 Error: <u>0</u>			
VOR #2 Error: <u>0</u>			
LOC: <u>CVE</u>	<u>10M</u>	Date	<u>6 Jul 25</u>
Signature: [Redacted]			

Return to service info: [Redacted]		
Current Paradigm form 107 aircraft return to service completed and located in flight can.		
Signature: [Redacted]	Certificate: [Redacted]	Date: <u>7/1/25</u>



Aircraft Discrepancy Log

Registration: N36RP

A/C Model: S76D

A/C Serial No: 761037

Date: <u>7 July 2025</u>	Pilot <u>SWANSON K.</u>	Manifest No.	A/C Time Out <u>0900L</u>	A/C Time In
Date: <u>6 July 2025</u> Discrepancy: <u>Log 4, During flight API failed. Per checklist, ATT was reset. API was not restored. Both API circuit breakers were reset. svste was restored.</u>				
<u>K. SWANSON</u> [REDACTED]				
→ [] Operations Continued Per MEL/NEF Item No. _____		MEL Class _____		
Deferred By	Certificate No.	Date	Time	
Corrective Action: <u>7/7/25 ACTT 997.3 performed AFCS test as per S76D - FCP-000 section 2.12 no defects noted.</u>				
Repaired/Cleared By [REDACTED]	Certificate No. <u>AKP</u> [REDACTED]	Date <u>7/7/25</u>		
Date:	Pilot	Manifest No.	A/C Time Out	A/C Time In
Date: _____ Discrepancy: _____				
→ [] Operations Continued Per MEL/NEF Item No. _____		MEL Class _____		
Deferred By	Certificate No.	Date	Time	
Corrective Action:				
Repaired/Cleared By	Certificate No.	Date		