

Maintenance Group Chairman Factual Report

Attachment 29 - Engine Maintenance Entries

WPR10FA371

Air Methods

Aircraft Record of Maintenance

DATE: 7-26-10		ACFT MODEL: A5350B3		A/C N#: 509AM		ACFT S/N#: 4688		BASE: MALAC		LOG LEAF #: 595944		
ACFT TT		LANDINGS/FLIGHTS		ROTOR BRAKE CYC.		#1 ENGINE		ENG TT		Starts		
PREVIOUS		863				SERIAL #		352+0		602.28		
TODAY										234.90		
TOTAL						46268						
TQ Event / COMP HOBBS		ROL / Prop #1		ARL / Prop #2		#2 ENGINE		ENG TT		Starts		
PREVIOUS						SERIAL #						
TODAY												
TOTAL												
ITEM	VOR CHECK	POWER CHECK										
NEXT DUE		#1										
		#2										

MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES
MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES

DISCREPANCY OR COMMENTS				CORRECTIVE ACTION						
#	PIREP MAREP	RAMCO DESC #		#	ATA:	A/F Eng 1/2	DATE:	TIME:	ACFT TT:	ENG TT:
3			ENGINE REMOVAL FOR REPAIR DUE TO FUEL COKING ENGINE S/N 46268	3			7/26/10	1514	352+0	352+0
<p>REINSTALLED REPAIRED ENGINE S/N 46268 1/2 JAW TURBOMECA MAINTENANCE MANUAL, CHAP 71 & 72. GROUND RUN CHECK OK. FRONT OIL PRESSURE CHECK AT 50 PSI. REAR OIL PRESSURE CHECK AT 19 PSI FOR TEMP. OF 82°. ENGINE VIBE CHECK AT 6000 RPM. TIR DRIVE SHAFT BALANCE CHECK AT 471 RPM.</p>										

DATE: 7-23-10	TIME OF DAY:	LABOR HOURS:	
ACFT TT: 352+0	LOCATION:	SIGNATURE:	TASK CODE:
NAME:	EMPLOYEE #: 4926	EMPLOYEE #: 4606	OPERATIONAL CHECK FLIGHT REQ. YES/NO <input checked="" type="checkbox"/>
CERTIFICATE #:	CERTIFICATE TYPE: AMP	CERT #:	P/N OFF:
		Type: AMP	P/N ON:
			S/N OFF:
			S/N ON:

# 4	PIREP MAREP	RAMCO DESC #	#	ATA:	A/F Eng 1/2	DATE:	TIME:	ACFT TT:	ENG TT:	
<p>FUEL COKING ON INJECTION MANIFOLD</p>				<p>Removed and Replaced injection manifold referencing Arriel 2 MTI No X292 M13032 update no 4 January 30, 2008. Assembled referencing Arriel 2B1 M.M. X292 N54502 Revision No. 19. March 30, 2009. Work performed under WDM S17 @ FAA CRS KBMP 477F. Helicopter Services of Nevada. </p>						

DATE: 7-24-10	TIME OF DAY:	LABOR HOURS:	
ACFT TT:	LOCATION:	SIGNATURE:	TASK CODE:
NAME:	EMPLOYEE #:	EMPLOYEE #:	OPERATIONAL CHECK FLIGHT REQ. YES/NO <input checked="" type="checkbox"/>
CERTIFICATE #:	CERTIFICATE TYPE:	CERT #:	P/N OFF:
		Type:	P/N ON:
			S/N OFF:
			S/N ON:

Date **7/27/10** ACTT **352+01** Operational Check performed for discrepancy **3,4** listed above, Pass Fail Signature Cert # & Type **COMM** (IAW 91.407 b)

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Air Methods

Aircraft Record of Maintenance

DATE: **7-26-10** ACFT MODEL: **A535863** A/C #: **509Am** ACFT S/N#: **4698** BASE: **MALAZ** LOG LEAF #: **595945**

		ACFT TT	LANDINGS/FLIGHTS	ROTOR BRAKE CYC.	#1 ENGINE SERIAL #	ENG TT	Starts	Ng/N1/C1/ICY	CCY	Np/N2/C2/PCY	RTO	EXC
PREVIOUS		352+0	863			352+0		602.28		234.90		
TODAY												
TOTAL					46268							

		TQ Event / COMP HOBBS	ROL / Prop #1	ARL / Prop #2	#2 ENGINE SERIAL #	ENG TT	Starts	Ng/N1/C1/ICY	CCY	Np/N2/C2/PCY	RTO	EXC
PREVIOUS												
TODAY												
TOTAL												

ITEM	VOR CHECK	POWER CHECK		
NEXT DUE		#1	#2	

MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES
MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES

DISCREPANCY OR COMMENTS				CORRECTIVE ACTION			
# 5	PIREP MAREP	RAMCO DESC #		# 5	ATA:	A/F Eng 1/2	DATE: 7-27-10 TIME: 1419 ACFT TT: 352+0 ENG TT: 352+0

HMMU VARLIP SEAL LEAKING

REMOVED HMMU SN 26003 FROM AIRCRAFT AND REPLACED VARLIP SEAL. RE-INSTALLED HMMU SN 26003 IN AIRCRAFT 1/4 IAW TURBOMECA ACCIEL 281 MAINTENANCE MANUAL CHAP 73. PN 9560170620 VARLIP SEAL IEA, PN 9794410095 ORING 4EA, PN 9794710300 ORING IEA, PN 9794410056 ORING IEA, PN 9682001605 ORING IEA, PN 9794410132 ORING IEA, PN 9794410075 ORING IEA, PN 9794710200 ORING IEA, PN 9794710028 ORING IEA. LABOR HOURS:

DATE: **7-26-10** TIME OF DAY: **1555**
 ACFT TT: **352+0** LOCATION: **MALAZ**
 NAME: **JOE MEXTER** EMPLOYEE #: **4606**
 CERTIFICATE #: [REDACTED] CERTIFICATE TYPE: **AP**

# 6	PIREP MAREP	RAMCO DESC #		# 6	ATA:	A/F Eng 1/2	DATE: 7-27-10 TIME: 1515 ACFT TT: 352+0 ENG TT:
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PILOT AUDIO PANEL AA95-912N (S/N 10892) REMOVED FOR USE IN NIOBLN

REPLACED PILOTS AUDIO PANEL 1/4 IAW A535863 STANDARD PRACTICES MANUAL. GROUND OPERATIONAL CHECK OK.

DATE: **7-26-10** TIME OF DAY:
 ACFT TT: **352+0** LOCATION:
 NAME: [REDACTED] EMPLOYEE #: **4926**
 CERTIFICATE #: [REDACTED] CERTIFICATE TYPE: **AP**

# [REDACTED]	PIREP MAREP	RAMCO DESC #		# [REDACTED]	ATA:	A/F Eng 1/2	DATE: 7-27-10 TIME: 1039 ACFT TT: 352+07 ENG TT:
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Operational Check performed for discrepancy **5** listed above. Pass Fail Signature: [REDACTED] Cert # & Type: **Conm** (IAW 91.407 b)

Air Methods

Aircraft Record of Maintenance

DATE: 7-27-10		ACFT MODEL: A535083	A/C N#: 509Am	ACFT S/N#: 4698	BASE: MALAZ	LOG LEAF #: 595946					
PREVIOUS	ACFT TT	LANDINGS/FLIGHTS	ROTOR BRAKE CYC.	#1 ENGINE	ENG TT	Starts	Ng/N1/C1/ICY	CCY	Np/N2/C2/PCY	RTO	EXC
TODAY	352+0	863		SERIAL #	352+0		602.28		234.90		
TOTAL				46268							
PREVIOUS	TQ Event / COMP HOBBS	ROL / Prop #1	ARL / Prop #2	#2 ENGINE	ENG TT	Starts	Ng/N1/C1/ICY	CCY	Np/N2/C2/PCY	RTO	EXC
TODAY				SERIAL #							
TOTAL											
ITEM	VOR CHECK	POWER CHECK									
NEXT DUE	1231-10	#1	#2								
			357+39								

MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES
MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES

DISCREPANCY OR COMMENTS				CORRECTIVE ACTION					
#	PIREP MAREP	RAMCO DESC #	#	ATA:	A/F Eng 1/2	DATE:	TIME:	ACFT TT:	ENG TT:

# 1	PIREP MAREP	RAMCO DESC #	# 1	ATA:	A/F Eng 1/2	DATE: 7-27-10	TIME: 1544	ACFT TT: 352+0	ENG TT:
AD 2003-22-016 DUE			<p>-Performed visual/feel check of tail rotor, pitch change links, and outboard spherical bearings for condition, excessive radial/axial play IAW AD 2003-22-06 para (a) dated 12-3-03 and determined them to be in an airworthy condition. Due recompliance before first flight of the next day.</p>						
DATE: 7-27-10	TIME OF DAY: 1544	SIGNATURE:		ACTT: 352+0		Date: 7-27-10		LABOR HOURS:	
ACFT TT: 352+0	LOCATION: MALAZ	EMPLOYEE #: 4626	EMPLOYEE #:	P/N OFF:		P/N ON:		RATIONAL CHECK FLIGHT REQ YES <input checked="" type="radio"/> NO	
NAME: J. MELTEN	EMPLOYEE #: 4626	EMPLOYEE #:	EMPLOYEE #:	P/N OFF:		P/N ON:			
CERTIFICATE #:	CERTIFICATE TYPE: AP	CERT #:	Type	S/N OFF:		S/N ON:			

# 2	PIREP MAREP	RAMCO DESC #	# 2	ATA:	A/F Eng 1/2	DATE: 7-27-10	TIME:	ACFT TT: 352+0	ENG TT: 352+0
AD 2007-10-07 PARA (g)			C/W AD 2007-10-07 PARA (g) VISUAL INSPECTION OF SPLINES OF COUPLING SHAFT ASSEMBLY AND HP PUMP DRIVE GEAR SHAFT FOR WEAR AT HMU REMOVAL.						
HMU COUPLING SHAFT SPLINE INSPECTION			NO DEFECTS OR DISCREPANCIES EXCEPT AS MAY BE NOTED AT THIS TIME.						
			NEXT COMPLIANCE DUE AT NEXT REMOVAL OF HMU.						
DATE: 7-27-10	TIME OF DAY:	SIGNATURE:		TASK CODE:		OPERATIONAL CHECK FLIGHT REQ YES <input checked="" type="radio"/> NO			
ACFT TT: 352+0	LOCATION:	EMPLOYEE #: 4926	EMPLOYEE #:	P/N OFF:		P/N ON:			
NAME:	EMPLOYEE #: 4926	EMPLOYEE #:	EMPLOYEE #:	P/N OFF:		P/N ON:			
CERTIFICATE #:	CERTIFICATE TYPE: AIP	CERT #:	Type AIP	S/N OFF:		S/N ON:			

DATE: 7-27-10	TIME OF DAY:	SIGNATURE:		TASK CODE:		OPERATIONAL CHECK FLIGHT REQ YES <input checked="" type="radio"/> NO			
ACFT TT: 352+0	LOCATION:	EMPLOYEE #: 4926	EMPLOYEE #:	P/N OFF:		P/N ON:			
NAME:	EMPLOYEE #: 4926	EMPLOYEE #:	EMPLOYEE #:	P/N OFF:		P/N ON:			
CERTIFICATE #:	CERTIFICATE TYPE: AIP	CERT #:	Type AIP	S/N OFF:		S/N ON:			

Operational Check performed for discrepancy listed above, Pass _____ Fail _____, Signature _____, Cert # & Type _____ (IAW 91.407 b)

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MC Form # M075 REV 1 04/2009

Aircraft Record of Maintenance

DATE: **7-27-10** ACFT MODEL: **AS350B3** A/C N#: **509AM** ACFT S/N#: **4698** BASE: **MAKAT** LOG LEAF #: **595947**

	ACFT TT	LANDINGS/FLIGHTS	ROTOR BRAKE CYC.	#1 ENGINE		ENG TT		Starts	Ng/N1/C1/ICY	CCY	Np/N2/C2/PCY	RTO	EXC
				SERIAL #									
PREVIOUS	352+0	563				352+0			607.28		234.90		
TODAY													
TOTAL					46268								

	TQ Event / COMP HOBBS	ROL / Prop #1	ARL / Prop #2	#2 ENGINE		ENG TT		Starts	Ng/N1/C1/ICY	CCY	Np/N2/C2/PCY	RTO	EXC
				SERIAL #									
PREVIOUS													
TODAY													
TOTAL													

ITEM	VOR CHECK	POWER CHECK					
			10 HL	30 HL	C93 30 DAY	56 69.00.45	ENG 20
NEXT DUE	12-31-10	#1 357+39 #2	359+9	357+0	8/3/10	8/10/10	357+39

MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES
MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES

DISCREPANCY OR COMMENTS				CORRECTIVE ACTION			
# 3	PIREP MAREP	RAMCO DESC #		# 3	ATA:	A/F Eng 1/2	DATE: 7-27-10 TIME: 1630 ACFT TT: 352+0 ENG TT: 352+0
AIRWORTHINESS CHECK DUE				COMPLIED WITH AIRWORTHINESS CHECK OF AIRCRAFT SN 4698 I/A/W AIR METHODS REC AS350B3 PART SEC A21. NO DEFECTS FOUND AT THIS TIME. REVIEWED AIRCRAFT STATUS REPORT.			

DATE: 7-27-10	TIME OF DAY: 1630	LABOR HOURS:
ACFT TT: 352+0	LOCATION: MAKAT	SIGNATURE: [Redacted]
NAME: JOB MENTER	EMPLOYEE #: 4606	EMPLOYEE #: 4606
CERTIFICATE #: [Redacted]	CERTIFICATE TYPE: AI	CERT # [Redacted] Type AP

# 4	MAREP	RAMCO DESC #	# 4	ATA:	A/F Eng 1/2	DATE: 7-27-10 TIME:	ACFT TT: 352+7 ENG TT: 352+7
AIRMETHODS' B61 20 HOUR ENGINE INSPECTION 720061				I CERTIFY THAT THIS AIRCRAFT HAS BEEN INSPECTED I/A/W AIRMETHODS' TURBOMECA ARIEL 2B1 ENGINE 20 HOUR B61 INSPECTION AND WAS FOUND TO BE IN AN AIRWORTHY CONDITION AT THIS TIME. NEXT COMPLIANCE DUE BY 372+7 A/C.T.T. 372+7 ENG.T.T.			

DATE: 7-27-10	TIME OF DAY:	LABOR HOURS:
ACFT TT: 352+7	LOCATION:	SIGNATURE: [Redacted]
NAME: [Redacted]	EMPLOYEE #: 4926	EMPLOYEE #: 4926
CERTIFICATE #: [Redacted]	CERTIFICATE TYPE: AMP	CERT # [Redacted] Type AMP

Date _____ ACTT _____ Operational Check performed for discrepancy _____ listed above, Pass _____, Fail _____, Signature _____ Cert # & Type _____ (IAW 91.407 b)

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Air Methods

Aircraft Record of Maintenance

DATE: 7-27-10 ACFT MODEL: AS350B3 A/C N#: NS09AM ACFT S/N#: 4698 BASE: MARAZ LOG LEAF #: 595948

	ACFT TT	LANDINGS/FLIGHTS	ROTOR BRAKE CYC.	#1 ENGINE		ENG TT	Starts	Ng/N1/C1/ICY	CCY	Np/N2/C2/PCY	RTO	EXC
				SERIAL #.								
PREVIOUS	<u>352+0</u>	<u>863</u>				<u>352+0</u>		<u>602.28</u>		<u>234.90</u>		
TODAY	<u>+07</u>	<u>1</u>				<u>+07</u>		<u>1.62</u>		<u>0.43</u>		
TOTAL	<u>352+07</u>	<u>864</u>			<u>46268</u>	<u>352+07</u>		<u>603.9</u>		<u>235.33</u>		

	TQ Event / COMP HOBBS	ROL / Prop #1	ARL / Prop #2	#2 ENGINE		ENG TT	Starts	Ng/N1/C1/ICY	CCY	Np/N2/C2/PCY	RTO	EXC
				SERIAL #								
PREVIOUS												
TODAY												
TOTAL												

ITEM	VOR CHECK	POWER CHECK	A22 10HR	A24 30HR	C93 30 DAY	S.B. 67.00.45	B61 ENG 20
NEXT DUE	<u>12-31-10</u>	#1 <u>372+7</u> #2	<u>359+9</u>	<u>357+0</u>	<u>8-3-10</u>	<u>8-10-10</u>	<u>372+7</u>

MEL/DEFERRAL	EXPIRES	MEL/DEFERRAL	EXPIRES

DISCREPANCY OR COMMENTS				CORRECTIVE ACTION						
# <u>5</u>	PIREP MAREP	RAMCO DESC #		# <u>5</u>	ATA:	A/F Eng 1/2	DATE: <u>7-27-10</u>	TIME: <u>1832</u>	ACFT TT: <u>352+7</u>	ENG TT:
		<u>BATTERY WEAR</u>								

DATE:	TIME OF DAY:	LABOR HOURS:
<u>7-27-10</u>	<u>1832</u>	

ACFT TT:	LOCATION:	SIGNATURE:	TASK CODE:	OPERATIONAL CHECK FLIGHT REQ YES/NO
<u>352+7</u>	<u>MALAZ</u>	[Redacted]		

NAME:	EMPLOYEE #:	EMPLOYEE #:	P/N OFF:	P/N ON:
<u>Joe Meister</u>	<u>4606</u>	<u>4616</u>	<u>R6350</u>	<u>R6350</u>

CERTIFICATE #:	CERTIFICATE TYPE:	CERT #:	Type	S/N OFF:	S/N ON:
[Redacted]	<u>AR</u>	[Redacted]	<u>AP</u>	<u>40279966</u>	<u>40348297</u>

#	PIREP MAREP	RAMCO DESC #	#	ATA:	A/F Eng 1/2	DATE:	TIME:	ACFT TT:	ENG TT:

DATE:	TIME OF DAY:	LABOR HOURS:

ACFT TT:	LOCATION:	SIGNATURE:	TASK CODE:	OPERATIONAL CHECK FLIGHT REQ YES/NO

NAME:	EMPLOYEE #:	EMPLOYEE #:	P/N OFF:	P/N ON:

CERTIFICATE #:	CERTIFICATE TYPE:	CERT #:	Type	S/N OFF:	S/N ON:

Date _____ ACTT _____ Operational Check performed for discrepancy _____ listed above, Pass _____ Fail _____ Signature _____ Cert # & Type _____ (IAW 91.407 b)

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Moteur / Engine
ARRIEL 2B1 N°46268

UTILISATION, ENTRETIEN, REVISION / OPERATION, MAINTENANCE, OVERHAUL

Date	FONCTIONNEMENT MOTEUR / ENGINE RUN HOUR									Observations - Travaux effectués - Signature Observations - Works carried out - Signature		
	Journalier Daily			Total depuis neuf Total since new			Total depuis état de disp. Total since stat. of life				Calculateur EECU	
	Cycles			Cycles			Cycles				Cycles	
	H	GEN.	T.L. P.T.	H	GEN.	T.L. P.T.	H	GEN.	T.L. P.T.		GEN.	T.L. P.T.
7.25.10	-	-	-	352	602.28	234.90	-	-	-	-	-	Removed and Replaced injection manifold referencing Arriel 2 MT1 No X 292 M13032 Update No. 4 January 30, 2008. Part removed 0292217030 S/N ANR 2451 and installed 0292217030 S/N 861 B. Assembly of engine referencing Arriel 2B1 M.M. X 292 N54502 Revision No. 19 March 30, 2009. All work performed and recorded under WO# M517 @ FAA CRS KBMR477F Ground run performed and were acceptable. Helicopter Services of Nevada

TYPE D'AERONEF ET N° / AIRCRAFT TYPE AND SERIAL No _____ UTILISATEUR / OPERATOR _____
 IMATRICULATION / REGISTRATION _____ POSITION MOTEUR / ENGINE POSITION _____

Lors de chaque changement d'utilisateur, d'aéronef ou de position moteur, passer à la page suivante

age 22

Moteur / Engine
ARRIEL 2B1 N° 46268

UTILISATION, ENTRETIEN, REVISION / OPERATION, MAINTENANCE, OVERHAUL

Date	FONCTIONNEMENT MOTEUR / ENGINE RUN HOUR										Observations - Travaux effectués - Signature Observations - Works carried out - Signature	
	Journalier Daily		Total depuis neuf Total since new			Total depuis état de disp. Total since stat. of life			Calculateur EECU			
	Cycles		Cycles			Cycles			Cycles			
	H	GEN.	T.L. P.T.	H	GEN.	T.L. P.T.	H	GEN.	T.L. P.T.	GEN.		T.L. P.T.
				352.7	603.9	235.33						I CERTIFY THAT THIS AIRCRAFT HAS BEEN INSPECTED I/A/W AIRMETHODS' TURBOMECA ARIEL 2B1 ENGINE B61 20 HOUR INSPECTION AND WAS FOUND TO BE IN AN AIRWORTHY CONDITION AT THIS TIME. NEXT COMPLIANCE DUE BY 372+7 ENG.T.T. PWR CK: 96.2 NG, 795 [°] T4, 71.0 TQ, 39.2 NR, PA 5780, 24.8 [°] OAT, T4 MARGIN - 40 [°] GOOD, T6 MARGIN + 2.5% GOOD [Signature]

TYPE D'AERONEF ET N° / AIRCRAFT TYPE AND SERIAL No AS350B3 S/N 4698

UTILISATEUR / OPERATOR AIRMETHODS

IMMATICULATION / REGISTRATION N509AM

POSITION MOTEUR / ENGINE POSITION SINGLE

Lors de chaque changement d'utilisateur, d'aéronef ou de position moteur, passer à la page suivante