DUTY AREA
TILT ROTOR AIRFRAMES MECHANIC (MOS 6156)

A. GENERAL, OPERATIONAL AND SAFETY DUTIES

1. Demonstrates/applies applicable **Safety precautions and procedures** around tilt rotor aircraft and work center.
2. Demonstrates/applies knowledge of applicable **Tilt rotor aircraft publications, diagrams, sketches and drawings**.
3. Performs tasks on the helicopter using applicable **Precision measuring equipment**.
4. Demonstrates/applies knowledge of fluids and gases and the principles of their use as applicable to **Tilt rotor aircraft hydraulic/pneumatic systems**.
5. Operates and maintains applicable shop **Support/special equipment**.

B. SCHEDULED AND UNSCHEDULED MAINTENANCE DUTIES

1. Performs **Required scheduled/unscheduled inspections** on applicable systems/components as per Maintenance Requirement Cards.
2. Incorporates applicable **Technical Directives changes/bulletins**.
3. Detects corrosion and performs **Corrosion control**.
4. Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on the **Flight control system UNS 2750** using appropriate maintenance procedures and support/test equipment.
5. Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on the **No.3 Utility hydraulic system UNS 2921** using appropriate maintenance procedures and support/test equipment.
6. Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on the **Landing gear/wheel brake system UNS 3200** using appropriate maintenance procedures and support/test equipment.
7. Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on the **Blade fold/wing stow (BFWS) system UNS 5780** using appropriate maintenance procedures and support/test equipment.
8. Performs applicable organizational level maintenance actions common to the **No.1 and No.2 Hydraulic systems UNS 2911/2912** using the appropriate maintenance procedures and support/test equipment.
9. Demonstrates/applies knowledge of theory of operations and performs applicable organizational level maintenance on the **Cargo ramp and door system UNS 2925** using appropriate maintenance procedures and support/test equipment.
10. Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on **Aircraft composite/structural component repair UNS 5100** using appropriate maintenance procedures and support/test equipment.

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SKILL PROGRESSION LEVEL DEFINITIONS

LEVEL I: An asterisk in level I indicates the task is taught at the “Entry Level (A) School”.

Level II: An asterisk in level II indicates the task is taught at the NAMTRA MARUNIT. Other tasks in level II not indicated with an asterisk will be signed off when exposed to the individual for the first time. All subsequent training, which the Marine performs after initial exposure, should be annotated on the OPNAV 4790/33 form until he/she is signed off in level III.

LEVEL III: An asterisk in level III indicates the task is considered training essential. A sign-off in level III indicates the Marine can perform that task w/o direct supervision. The unit is responsible for these sign-off’s.

LEVEL IV: Used by the unit to indicate an individual is advanced in technical and supervisory functions. Prior to sign-off, all training essential and training optional tasks in level III must have been signed-off. Only one sign-off for the Duty Area is required.

Sign–off blanks: **(MO/YR)/(INDIDVIDUAL’S INITIALS)/(SUPERVISOR’S INTIALS)**

Note: Refer to MCO P4790.20_ for further clarification.

INDIVIDUAL DUTY AREA QUALIFICATION SUMMARY
TILT ROTOR AIRFRAMES MECHANIC (MOS 6156)

NAME/SSN_____

Granted MOS 6151 _____/_____
Granted MOS 6156 _____/_____

Level II Completed_____/_____
Level III Completed_____/_____
Level IV Completed_____/_____

		LEVEL I	LEVEL II	LEVEL III	LEVEL IV
DUTY #	DUTY DESCRIPTION	DATE / SIGN	DATE / SIGN	DATE / SIGN	DATE / SIGN
A.	GENERAL, OPERATIONAL AND SAFETY DUTIES	XXXX

INDIVIDUAL QUALIFICATION RECORD
TILT ROTOR AIRFRAMES MECHANIC (MOS 6156)

A. GENERAL, OPERATIONAL AND SAFETY DUTIES

A.1 Demonstrates/applies applicable **Safety precautions and procedures** around tilt rotor aircraft and work center.

TASK #	TASK DESCRIPTION	REFERENCE	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
A	Ground occupational safety and health programs in specific areas					
A-1	First aid procedures	Marine BST Essential Subjects Book		/ /	* / /	
A-2	Use of solvents/paints/strippers/sealants, (shelf life)	OSHA 29 CFR 1910 NAMSOP		/ /	* / /	
A-3	Hazardous material	OPNAVINST 4790.2 OSHA 29 CFR 1910 NAVAIR A1-NAOSH-SAF-000/P-5100-1 NAMSOP	*	* / /	* / /	
A-4	Safety procedures near electricity	OSHA 29 CFR 1910 NAMSOP	*	* / /	* / /	
A-5	Entry into confined spaces	NAMSOP		/ /	/ /	
A-6	Composite material safety	OSHA 29 CFR 1910		* / /	* / /	
A-7	Gas free engineering	OSHA 29 CFR 1910		/ /	/ /	
A-8	Personal Protective Equipment (PPE), (Safety boots, flight boots, clothing, hearing protection, eye protection, etc.)	OSHA 29 CFR 1910 NAVAIR A1-NAOSH-SAF-000/P-5100-1 NAMSOP		* / /	* / /	
A-9	Safety markings	OSHA 29 CFR 1910 NAVAIR A1-NAOSH-SAF-000/P-5100-1 NAMSOP		* / /	* / /	
B	Precautions & procedures around Tilt rotor aircraft and support equipment					
B-1	Safety procedures around turning aircraft	OSHA 29 CFR 1910 NAVAIR A1-NAOSH-SAF-000/P-5100-1 NAMSOP		* / /	* / /	
B-2	Safety procedures near Tilt rotor aircraft when applying or removing external electrical power	IETM NAMSOP		* / /	* / /	
B-3	APU pre-flight/start procedures	IETM NATOPS		/ /	* / /	
B-4	Safety procedures near Tilt rotor aircraft with use of hydraulic power	IETM NAMSOP		* / /	* / /	
B-5	Safety procedures near Tilt rotor aircraft with ordnance	IETM NAMSOP		* / /	* / /	

DA A.1 (Continued)

TASK #	TASK DESCRIPTION	REFERENCE	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
B-6	Safety procedures when jacking Tilt rotor aircraft or while on jacks	IETM NAMSOP		* / /	* / /	
B-7	Safety procedures near Tilt rotor aircraft maintenance platforms	IETM NAMSOP		* / /	* / /	
B-8	Safety procedures when washing Tilt rotor aircraft	IETM NA 01-1A-509 NAMSOP		/ /	* / /	
B-9	Safety procedures near support equipment operations	IETM NAMSOP		* / /	* / /	
C	Line emergency procedures					
C-1	Types of fire extinguishers	OSHA 29 CFR 1910 NAVAIR A1-NAOSH-SAF-000/P-5100-1 IETM		* / /	* / /	
C-2	Emergency egress procedures	IETM NATOPS		* / /	* / /	
C-3	Fire fighting			/ /	/ /	
C-3.1	Proper extinguishing for composite fire	IETM		* / /	* / /	
C-3.2	Proper extinguishing for brake fire	IETM		/ /	* / /	
C-3.3	Proper extinguishing for engine fire	IETM		/ /	* / /	
C-3.4	Procedures when aircraft has loss of brakes	NATOPS		/ /	* / /	
C-3.5	Procedures for rotor brake fire	IETM		/ /	* / /	
C-4	Emergency hand signals	NATOPS		/ /	* / /	
D	Hydraulic contamination	OPNAVINST 4790.2 NA 01-1A-17 NAMSOP	*	* / /	* / /	
E	EMI/ESD/EMC	OPNAVINST 4790.2 NAMSOP		/ /	/ /	
F	Emergency reclamation	OPNAVINST 4790.2 NAMSOP		/ /	* / /	
G	Wheels up landing procedures	NATOPS NAMSOP		/ /	* / /	
H	Tire and wheel safety procedures	OPNAVINST 4790.2 NAMSOP		* / /	* / /	

A.2 Demonstrates/applies knowledge of applicable **Tilt rotor aircraft publications, diagrams, sketches and drawings**.

A	Naval Aviation Maintenance Program (NAMP)	OPNAVINST 4790.2		/ /	* / /	
B	Principles of Operation	IETM	*	* / /	* / /	
C	Testing & Troubleshooting	IETM		* / /	* / /	
D	Maintenance Requirement Cards (MRC)	NA 01-230-HMA-6-2 NA 01-230-HMA-6-3 NA 01-230-HMA-6-4	*	/ /	* / /	
E	UNS	IETM		* / /	* / /	

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DA A.2 (Continued)

TASK #	TASK DESCRIPTION	REFERENCE	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
F	Maintenance Instruction Manuals	IETM		* / /	* / /	
F-1	Maintenance Procedures Manuals	IETM		* / /	* / /	
F-2	Illustrated Parts Breakdown (IPB)	IETM		* / /	* / /	
G	Aircraft Tire/Wheel Applicability List	NA 04-10-1		/ /	* / /	
H	Aircraft Tire and Tubes	NA 04-10-506		/ /	* / /	
I	Aircraft Wheel Assemblies	NA 04-10-508		/ /	* / /	
J	Tire Inflation Kit	NA 17-1-123		/ /	* / /	
K	Contamination Kit Maintenance Manual	NA 17-15E-52		/ /	* / /	
L	Aviation Hydraulics Manual	NA 01-1A-17	*	/ /	* / /	
M	Aviation Hose & Tube Manual	NA 01-1A-20		* / /	* / /	
N	Aircraft Cleaning & Corrosion Control Manual	NA 01-1A-509	*	/ /	* / /	
O	Preservation of Naval Aircraft	NA 15-01-500		/ /	* / /	
P	Safety Manual	OSHA 29 CFR 1910		/ /	* / /	
Q	Safety Requirement for Naval Aviation Shore Activities	NAVAIR A1-NAOSH-SAF-000/P-5100-1		/ /	* / /	
R	Pre-operational inspection of support equipment	NA 17-600-series NA 19-600-series		/ /	* / /	
S	NATOPS	NA 01-230HMA-1 NATOPS		/ /	* / /	
T	Oxygen/Nitrogen Cryogenic System	NA 06-30-501		/ /	* / /	
U	Anti Friction Bearings (OMA\IMA)	NA 01-1A-503		/ /	* / /	
V	Structural Repair Manual	IETM		* / /	* / /	
W	Structural Hardware Manual	NA 01-1A-8		* / /	* / /	
X	General Manual for Structural Repair	NA 01-1A-1		* / /	* / /	
Y	Avionics Cleaning and Corrosion Manual	NA 16-1-540		/ /	/ /	
Z	Support Equipment Corrosion Manual	NA 17-1-125		/ /	/ /	
AA	CNAP/CNAL corrosion instruction	4750 series		/ /	/ /	
BB	General Composite Repair Manual	NA 01-1A-21		* / /	* / /	
CC	Electronic Particle Counter Manual	NA 17-15BF-99		/ /	* / /	

A.3 Performs tasks on Tilt rotor aircraft using applicable **Precision measuring equipment**.

A	Operates direct pressure gauge	Operator’s manual		/ /	* / /	
B	Operates stand-off gauge	NA 17-1-123		* / /	* / /	
C	Operates dial indicator	Operator’s manual		/ /	* / /	
D	Operates force gauge	Operator’s manual		/ /	* / /	
E	Operates AFCS line analyzer	Operator’s manual		/ /	* / /	
F	Operates torque wrench	Operator’s manual		* / /	* / /	
G	Operates pyrometers digital	Operator’s manual		/ /	* / /	
H	Operates depth gauges	NA 01-1A-509		/ /	* / /	
I	Operates micrometers	NA 01-1A-509		/ /	* / /	
J	Triple beam balance			/ /	* / /	

A.4 Demonstrates/applies knowledge of fluids and gases and the principles of there use as applicable to **Tilt rotor aircraft hydraulic/pneumatic systems**.

TASK #	TASK DESCRIPTION	REFERENCE	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
A	Hydraulic fluids used in Naval Aircraft					
A-1	MIL-H-5606	NA 01-1A-17		/ /	/ /	
A-2	MIL-H-83282	NA 01-1A-17	*	* / /	* / /	
B	Color coded functional identification tape	NA 01-1A-509		/ /	/ /	
C	Nitrogen	NA 06-30-501		/ /	* / /	

A.5 Operates and maintains applicable shop **Support/special equipment**.

A	15-ton jack	NA 19-600-135-6-1		* / /	* / /	
B	25-ton jack	NA 19-600-135-6-1		* / /	* / /	
C	Hydraulic Servicing Unit (HSU) series	AG-140DB-MIB-000		* / /	* / /	
D	Box and pan brake	NA-A1-NAOSH-SAF-000/P5100-1		/ /	* / /	
E	Bench grinder	NA-A1-NAOSH-SAF-000/P5100-1		/ /	* / /	
F	Metal shears	NA-A1-NAOSH-SAF-000/P5100-1		/ /	* / /	
G	Drill press	NA-A1-NAOSH-SAF-000/P5100-1		/ /	* / /	
H	Belt/disc sander	NA-A1-NAOSH-SAF-000/P5100-1		/ /	* / /	
I	Thermocoupler	NA-A1-NAOSH-SAF-000/P5100-1		* / /	* / /	
J	Vacuum pump	NA-A1-NAOSH-SAF-000/P5100-1		* / /	* / /	
K	Rhine air pump (NF15-3)	NA-A1-NAOSH-SAF-000/P5100-1		/ /	* / /	
L	Operates T-10 (check & fill unit)	Operator’s manual		/ /	* / /	
M	Mini mark IV kit	IETM		* / /	* / /	
N	Composite repair tool set	NA 01-1A-21		* / /	* / /	
O	Composite repair unit, double VAC debulk tool	IETM		* / /	* / /	

INDIVIDUAL QUALIFICATION RECORD
TILT ROTOR AIRFRAMES MECHANIC (MOS 6156)

B. SCHEDULED AND UNSCHEDULED MAINTENANCE DUTIES

B.1 Performs **Required scheduled/unscheduled inspections** on applicable systems/components using appropriate Maintenance Requirement Cards (MRC).

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
A	Periodic Maintenance Information Cards	NA 01-230-HMA-6-3			/ /	* / /	
B	Turnaround Checklist Requirement Cards	NA 01-230-HMA-6-3			/ /	* / /	
C	Daily/Servicing/Special/Preservation/ Conditional Requirement Cards	NA 01-230-HMA-6-3			/ /	* / /	
C-1	Special preservation/conditional ASPA				/ /	* / /	
D	Phase Maintenance Requirement Cards						
D-1	Performs A-Phase inspection	NA 01-230-HMA-6-4			/ /	* / /	
D-2	Performs B-Phase inspection	NA 01-230-HMA-6-4			/ /	* / /	
D-3	Performs C-Phase inspection	NA 01-230-HMA-6-4			/ /	* / /	
D-4	Performs D-Phase inspection	NA 01-230-HMA-6-4			/ /	* / /	
E	Performs Acceptance/transfer inspection	OPNAVINST 4790.2			/ /	* / /	
F	Performs major structural inspection on hard landing, overstress, etc	OPNAVINST 4790.2			/ /	* / /	
G	Performs 28 day/35 hr inspection	NA 01-230-HMA-6-3			/ /	* / /	
H	Performs preservation/depreservation inspection	NA 01-230-HMA-6-4			/ /	* / /	
I	Performs 105 hr inspection				/ /	* / /	

B.2 Incorporates applicable **Technical Directives changes/bulletins**.

A	Technical Directives System	NAVAIR 00-25-300			/ /	* / /	
B	Rapid Action Minor Engineering Change (RAMEC) Proposals	NAVAIRINST 5215.10			/ /	* / /	
C	Interim Rapid Action Change (IRAC)	OPNAVINST 4790.2			/ /	* / /	
D	Rapid Action Change (RAC)	OPNAVINST 4790.2			/ /	* / /	
E	Incorporates Airframes Changes	OPNAVINST 4790.2			/ /	* / /	
F	Incorporates Airframes Bulletins	OPNAVINST 4790.2			/ /	* / /	
G	ERAC				/ /	* / /	

B.3 Detects corrosion and performs **Corrosion control**.

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
A	Performs corrosion detection during all maintenance actions	NA 01-1A-509			/ /	* / /	
B	Performs corrosion prevention during all maintenance actions	NA 01-1A-509			/ /	* / /	
C	Performs corrective action on corrosion discrepancies	NA 01-1A-509			/ /	* / /	
D	Performs corrosion detection/prevention on support equipment	NA 01-1-125			/ /	* / /	

B.4 Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on the **Flight control system UNS 2750** using appropriate maintenance procedures and support/test equipment.

A	Theory of operation						
A-1	Swashplate actuator	IETM			* / /	* / /	
A-2	Flaperon actuator	IETM			* / /	* / /	
A-3	Elevator actuator	IETM			* / /	* / /	
A-4	Conversion actuator	IETM			* / /	* / /	
A-5	Rudder actuator	IETM			* / /	* / /	
B	Functional Check						
B-1	Swashplate actuator	IETM			* / /	* / /	
B-2	Flaperon actuator	IETM			/ /	* / /	
B-3	Elevator actuator	IETM			/ /	* / /	
B-4	Conversion actuator	IETM			* / /	* / /	
B-5	Rudder actuator	IETM			/ /	* / /	
C	Fault Isolation						
C-1	Swashplate actuator	IETM			* / /	* / /	
C-2	Flaperon actuator	IETM			/ /	* / /	
C-3	Elevator actuator	IETM			/ /	* / /	
C-4	Conversion actuator	IETM			* / /	* / /	
C-5	Rudder actuator	IETM			/ /	* / /	
D	Organizational Maintenance						
D-1	Swashplate actuator				/ /	/ /	
D-1.1	Inspect swashplate actuator	IETM			* / /	* / /	
D-1.2	R&R swashplate actuator-outboard	IETM			/ /	* / /	
D-1.3	R&R swashplate actuator-inboard	IETM			/ /	* / /	
D-1.4	R&R swashplate actuator-center	IETM			* / /	* / /	
D-2	Flaperon actuator				/ /	/ /	
D-2.1	Inspect flaperon actuator	IETM			/ /	* / /	
D-2.2	R&R flaperon actuator	IETM			/ /	* / /	
D-3	Elevator actuator				/ /	/ /	
D-3.1	Inspect elevator actuator	IETM			/ /	* / /	
D-3.2	R&R elevator actuator	IETM			/ /	* / /	
D-4	Conversion actuator				/ /	/ /	

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DA B.4 (Continued)

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
D-4.1	Inspect conversion actuator	IETM			/ /	* / /	
D-4.2	R&R conversion actuator	IETM			/ /	* / /	
D-4.3	R&R backup hydraulic power drive unit	IETM			/ /	* / /	
D-4.4	R&R manual drive assembly	IETM			/ /	* / /	
D-4.5	R&R primary hydraulic power drive unit	IETM			* / /	* / /	
D-5	Rudder actuator				/ /	/ /	
D-5.1	R&R rudder actuator	IETM			/ /	* / /	
D-5.2	Inspect rudder actuator	IETM			/ /	/ /	
D-6	Flight control surfaces				/ /	/ /	
D-6.1	R&R flaperons	IETM			* / /	* / /	
D-6.2	R&R elevator	IETM			* / /	* / /	
D-6.3	R&R rudders	IETM			/ /	* / /	

B.5 Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on the **No.3 Utility hydraulic system UNS 2921** using appropriate maintenance procedures and support/test equipment.

A	Theory of operation						
A-1	No 3 hydraulic system	IETM			* / /	* / /	
A-2	Rotor brake system	IETM			* / /	* / /	
A-3	Rotor positioning unit (RPU)	IETM			* / /	* / /	
A-4	Engine air particle separator (EAPS)	IETM			* / /	* / /	
A-5	Engine start system	IETM			* / /	* / /	
A-6	Cargo winch	IETM			* / /	* / /	
A-7	Rescue hoist	IETM			* / /	* / /	
A-8	Winch/hoist control module	IETM			* / /	* / /	
B	Functional check						
B-1	No 3 hydraulic system	IETM			* / /	* / /	
B-2	Rotor brake system	IETM			* / /	* / /	
B-3	Rotor positioning unit (RPU)	IETM			* / /	* / /	
B-4	Engine air particle separator (EAPS)	IETM			* / /	* / /	
B-5	Engine start system	IETM			* / /	* / /	
B-6	Cargo Winch	IETM			* / /	* / /	
B-7	Rescue hoist	IETM			* / /	* / /	
B-8	Winch/hoist control module	IETM			/ /	* / /	
C	Fault isolation						
C-1	No 3 hydraulic system	IETM			* / /	* / /	
C-2	Rotor brake system	IETM			* / /	* / /	
C-3	Rotor positioning unit (RPU)	IETM			* / /	* / /	
C-4	Engine air particle separator (EAPS)	IETM			* / /	* / /	
C-5	Engine start system	IETM			* / /	* / /	
C-6	Cargo Winch	IETM			* / /	* / /	
C-7	Rescue hoist	IETM			* / /	* / /	

DA B.5 (Continued)

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
C-8	Winch/hoist control module	IETM			/ /	* / /	
D	Organizational maintenance						
D-1	NO.3 hydraulic system				/ /	/ /	
D-1.1	Conn, apply, disc hydraulic power, No.3 system	IETM			* / /	* / /	
D-1.2	Inspect hydraulic system reservoir fluid levels	IETM			* / /	* / /	
D-1.3	Perform hydraulic fluid sample	IETM			/ /	* / /	
D-1.4	Service utility hydraulic accumulator	IETM			/ /	* / /	
D-1.5	Service hydraulic system reservoir	IETM			* / /	* / /	
D-1.6	Remove and replace rosan fittings	IETM			/ /	* / /	
D-1.7	Hydraulic repair, tubes and fittings	IETM			* / /	* / /	
D-1.8	Depressurize No.3 hydraulic system	IETM			* / /	* / /	
D-1.9	Bleed No.3 hydraulic system	IETM			* / /	* / /	
D-1.10	Bleed No.3 system pump and plumbing	IETM			/ /	* / /	
D-1.11	Bleed No.3 module and plumbing	IETM			* / /	* / /	
D-1.12	Leak check No.3 hydraulic system	IETM			* / /	* / /	
D-1.13	R&R hydraulic pump (3)	IETM			/ /	* / /	
D-1.14	R&R flight control module	IETM			* / /	* / /	
D-1.15	Replace return filter bowl/element	IETM			/ /	* / /	
D-1.16	Replace pressure filter bowl/element	IETM			/ /	* / /	
D-1.17	R&R accumulator assembly	IETM			/ /	* / /	
D-1.18	R&R utility isolation valve MDL	IETM			/ /	* / /	
D-2	Rotor brake system				/ /	/ /	
D-2.1	Bleed rotor brake assembly	IETM			* / /	* / /	
D-2.2	R&R rotor brake assembly	IETM			* / /	* / /	
D-2.3	Inspect rotor brake wear pin indictor	IETM			/ /	* / /	
D-2.4	R&R rotor brake control valve	IETM			/ /	* / /	
D-3	Rotor positioning unit (RPU)				/ /	/ /	
D-3.1	Perform functional check RPU	IETM			* / /	* / /	
D-3.2	R&R RPU assembly	IETM			* / /	* / /	
D-4	Engine air particle separator (EAPS)				/ /	/ /	
D-4.1	Inspect EAPS	IETM			/ /	* / /	
D-4.2	Test EAPS system	IETM			* / /	* / /	
D-4.3	R&R EAPS blower outboard	IETM			* / /	* / /	
D-4.4	R&R EAPS blower inboard	IETM			/ /	* / /	
D-4.5	R&R EAPS start control valve	IETM			* / /	* / /	
D-5	Engine start system				/ /	/ /	
D-5.1	Inspect starter assembly	IETM			* / /	* / /	
D-5.2	F/L engine start system	IETM			* / /	* / /	
D-5.3	R&R starter assembly	IETM			* / /	* / /	
D-6	R&R Cargo winch	IETM			* / /	* / /	
D-7	R&R Rescue hoist	IETM			* / /	* / /	
D-8	R&R winch/hoist control module	IETM			/ /	* / /	

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B.6 Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on the **Landing gear/wheel brake system UNS 3200** using appropriate maintenance procedures and support/test equipment.

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
A	Theory of operation						
A-1	Landing gear system	IETM			* / /	* / /	
A-2	Landing gear emergency extension system	IETM			* / /	* / /	
A-3	Wheel brake system	IETM			* / /	* / /	
A-4	Nose wheel steering system	IETM			* / /	* / /	
A-5	Aircraft jacking	IETM			* / /	* / /	
B	Functional Check						
B-1	Landing gear system	IETM			* / /	* / /	
B-2	Landing gear emergency extension system	IETM			* / /	* / /	
B-3	Wheel brake system	IETM			* / /	* / /	
B-4	Nose wheel steering system	IETM			* / /	* / /	
B-5	Pneumatic reservoir	IETM			* / /	* / /	
C	Fault Isolation						
C-1	Landing gear system	IETM			* / /	* / /	
C-2	Landing gear emergency extension system	IETM			* / /	* / /	
C-3	Wheel brake system	IETM			* / /	* / /	
C-4	Nose steering system	IETM			* / /	* / /	
D	Organizational Maintenance						
D-1	Main Landing Gear (MLG)				/ /	/ /	
D-1.1	Inspect MLG	IETM			/ /	* / /	
D-1.2	Service MLG shock strut	IETM			/ /	* / /	
D-1.3	Service pneumatic reservoir	IETM			* / /	* / /	
D-1.4	Service tires	IETM			* / /	* / /	
D-1.5	MLG shock strut bleed/fill on ACFT	IETM			* / /	* / /	
D-1.6	MLG shock strut bleed/fill HDLG adaptor	IETM			/ /	* / /	
D-1.7	Adjust MLG aft door	IETM			/ /	/ /	
D-1.8	Adjust MLG forward door	IETM			/ /	/ /	
D-1.9	R&R MLG shock strut	IETM			/ /	* / /	
D-1.10	R&R MLG drag strut actuator	IETM			/ /	* / /	
D-1.11	R&R landing gear control valve	IETM			/ /	* / /	
D-1.12	Inspect tires, damage/cut/inflation	IETM			/ /	/ /	
D-1.13	Grease pack MLG wheel bearings	IETM			/ /	/ /	
D-1.14	R&R MLG wheel/tire assembly, outer	IETM			* / /	* / /	
D-1.15	R&R MLG wheel/tire assembly, inboard	IETM			/ /	* / /	
D-2	Nose landing gear				/ /	/ /	
D-2.1	Inspect NLG	IETM			/ /	* / /	
D-2.2	Bleed/fill nose shock strut	IETM			/ /	* / /	
D-2.3	Service tires	IETM			/ /	* / /	
D-2.4	Service nose shock strut	IETM			/ /	* / /	
D-2.5	R&R NLG shock strut	IETM			/ /	* / /	
D-2.6	R&R drag strut actuator	IETM			/ /	* / /	
D-2.7	Inspect tires, damage/cut/inflation	IETM			/ /	/ /	
D-2.8	R&R left NLG wheel/tire assembly	IETM			/ /	* / /	

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DA B.6 (Continued)

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
D-2.9	R&R right NLG wheel/tire assembly	IETM			/ /	* / /	
D-3	Wheel brake system				/ /	/ /	
D-3.1	R&R brake master cylinder B/C assembly, outboard	IETM			/ /	* / /	
D-3.2	R&R brake master cylinder B/C assembly, inboard	IETM			/ /	* / /	
D-3.3	Bleed aircraft brake system	IETM			* / /	* / /	
D-3.4	Leak check wheel brake system	IETM			* / /	* / /	
D-3.5	Inspect brake pads	IETM			* / /	* / /	
D.3-6	R&R outboard MLG brake assembly	IETM			* / /	* / /	
D-3.7	R&R inboard MLG brake assembly	IETM			/ /	* / /	
D-4	Nose wheel steering system				/ /	/ /	
D-4.1	R&R NLG power steering unit	IETM			/ /	* / /	
D-5	Aircraft jacking				/ /	/ /	
D-5.1	Jack axle, ashore	IETM			* / /	* / /	
D-5.2	Jack axle, afloat	IETM			/ /	* / /	
D-5.3	Jack aircraft, ashore	IETM			* / /	* / /	
D-5.4	Jack aircraft, afloat	IETM			/ /	* / /	

B.7 Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on the **Blade fold/wing stow (BFWS) system UNS 5780** using appropriate maintenance procedures and support/test equipment.

A	Theory of operation						
A-1	BFWS system	IETM			* / /	* / /	
B	Functional Check						
B-1	BFWS system	IETM			* / /	* / /	
C	Fault Isolation						
C-1	BFWS system	IETM			* / /	* / /	
D	Organizational maintenance						
D-1	Blade fold/wing stow system				/ /	/ /	
D-1.1	R&R safety flag assembly (1 of 4)	IETM			/ /	* / /	
D-1.2	R&R extend shaft assembly (1 of 4)	IETM			/ /	* / /	
D-1.3	R&R capstan drive assembly	IETM			/ /	* / /	
D-1.4	R&R manual drive unit	IETM			/ /	* / /	
D-1.5	R&R hydraulic motor assembly	IETM			/ /	* / /	
D-1.6	R&R wing stow isolation valve MDL (3)	IETM			/ /	* / /	
D-1.7	F/L wing stow isolation valve	IETM			/ /	/ /	
D-1.8	R&R lock pin assembly (left fwd)	IETM			* / /	* / /	
D-1.9	R&R lock pin assembly (right fwd)	IETM			/ /	* / /	
D-1.10	R&R lock pin assembly (left aft)	IETM			/ /	* / /	
D-1.11	R&R lock pin assembly (right aft)	IETM			/ /	* / /	
D-1.12	R&R lock pin control module	IETM			/ /	* / /	

B.8 Performs applicable organizational level maintenance actions common to the **No.1 and No.2 Hydraulic systems UNS 2911/2912** using the appropriate maintenance procedures and support/test equipment.

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
A	Theory of operation						
A-1	No.1 hydraulic system	IETM			* / /	* / /	
A-2	No.2 hydraulic system	IETM			* / /	* / /	
B	Functional Check						
B-1	No.1 hydraulic system	IETM			* / /	* / /	
B-2	No.2 hydraulic system	IETM			/ /	* / /	
C	Fault isolation						
C-1	Fault locate No.1 hydraulic system	IETM			* / /	* / /	
C-2	Fault locate No.2 hydraulic system	IETM			/ /	* / /	
D	Organizational maintenance						
D-1	No.1 hydraulic system				/ /	/ /	
D-1.1	Connect/disconnect/apply hydraulic power	IETM NA 01-1A-17			/ /	* / /	
D-1.2	Inspect hydraulic reservoir fluid levels	IETM			* / /	* / /	
D-1.3	Perform hydraulic fluid sampling	IETM NA 01-1A-17			/ /	* / /	
D-1.4	Service flight control hydraulic acc	IETM NA 01-1A-17			/ /	* / /	
D-1.5	Service hydraulic reservoir	IETM NA 01-1A-17			* / /	* / /	
D-1.6	R&R Rosan fittings	IETM NA 01-1A-17			/ /	* / /	
D-1.7	Hydraulic repair, tubes and fittings	IETM NA 01-1A-17			* / /	* / /	
D-1.8	Hydraulic system test	IETM NA 01-1A-17			* / /	* / /	
D-1.9	Depressurize Hydraulic system	IETM NA 01-1A-17			* / /	* / /	
D-1.10	Bleed Hydraulic system	IETM NA 01-1A-17			/ /	* / /	
D-1.11	Bleed system pump and plumbing	IETM NA 01-1A-17			* / /	* / /	
D-1.12	Bleed module and plumbing	IETM NA 01-1A-17			/ /	* / /	
D-1.13	Leak check hydraulic system	IETM NA 01-1A-17			* / /	* / /	
D-1.14	Replace ground test conn, pressure (1)	IETM			/ /	/ /	
D-1.15	Replace ground test conn, return (1)	IETM			/ /	/ /	
D-1.16	R&R PC1 return swivel -701-109/551	IETM			/ /	* / /	
D-1.17	R&R PC1 pressure swivel -701-107/551	IETM			/ /	* / /	
D-1.18	R&R fluid compensation valve (1)	IETM			/ /	/ /	
D-1.19	R&R hydraulic PC1 manifold 722/657	IETM			/ /	/ /	
D-1.20	Fault locate No.1 hydraulic system	IETM			* / /	* / /	

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DA B.8 (Continued)

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
D-1.21	R&R hydraulic pump	IETM			* / /	* / /	
D-1.22	R&R flight control module (1)	IETM			/ /	* / /	
D-1.23	R&R return filter bowl/element	IETM			/ /	* / /	
D-1.24	R&R pressure filter bowl/element	IETM			/ /	* / /	
D-1.25	R&R accumulator	IETM			/ /	/ /	
D-1.26	R&R pressure gauge	IETM			/ /	/ /	
D-1.27	R&R SW isolation valve module (1)	IETM			/ /	* / /	
D-1.28	R&R remote switching isolation valve module	IETM			/ /	* / /	
D-2	No.2 hydraulic system				/ /	/ /	
D-2.1	Connect/disconnect/apply hydraulic power	IETM NA 01-1A-17			/ /	* / /	
D-2.2	Inspect hydraulic reservoir fluid levels	IETM			* / /	* / /	
D-2.3	Perform hydraulic fluid sampling	IETM NA 01-1A-17			/ /	* / /	
D-2.4	Service flight control hydraulic acc	IETM NA 01-1A-17			/ /	* / /	
D-2.5	Service hydraulic reservoir	IETM NA 01-1A-17			* / /	* / /	
D-2.6	R&R Rosan fittings	IETM NA 01-1A-17			/ /	* / /	
D-2.7	Hydraulic repair, tubes and fittings	IETM NA 01-1A-17			* / /	* / /	
D-2.8	Hydraulic system test	IETM NA 01-1A-17			/ /	* / /	
D-2.9	Depressurize Hydraulic system	IETM NA 01-1A-17			* / /	* / /	
D-2.10	Bleed Hydraulic system	IETM NA 01-1A-17			* / /	* / /	
D-2.11	Bleed system pump and plumbing	IETM NA 01-1A-17			/ /	* / /	
D-2.12	Bleed module and plumbing	IETM NA 01-1A-17			/ /	* / /	
D-2.13	Leak check hydraulic system	IETM NA 01-1A-17			* / /	* / /	
D-2.14	RPL ground test conn, pressure (2)	IETM			/ /	/ /	
D-2.15	RPL ground test conn, return (2)	IETM			/ /	/ /	
D-2.16	R&R PC2 return swivel -701-110/552	IETM			/ /	* / /	
D-2.17	R&R PC2 pressure swivel -701-108/552	IETM			/ /	* / /	
D-2.18	R&R fluid compensation valve (2)	IETM			/ /	/ /	
D-2.19	RPR/R&R hydraulic PC2 manifold 722/658	IETM			/ /	/ /	
D-2.20	F/L No.2 hydraulic system	IETM			/ /	* / /	
D-2.21	R&R hydraulic pump	IETM			/ /	* / /	
D-2.22	R&R flight control module (2)	IETM			/ /	* / /	
D-2.23	R&R return filter bowl/element	IETM			/ /	* / /	

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DA B.8 (Continued)

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
D-2.24	R&R pressure filter bowl/element	IETM			/ /	* / /	
D-2.25	R&R accumulator	IETM			/ /	/ /	
D-2.26	R&R pressure gauge	IETM			/ /	/ /	
D-2.27	R&R switching valve (remote) (2)	IETM			/ /	* / /	
D-2.28	R&R SW isolation valve module (2)	IETM			/ /	* / /	

B.9 Demonstrates/applies knowledge of theory of operations and performs applicable organizational level maintenance on the **Cargo ramp and door system UNS 2925** using appropriate maintenance procedures and support/test equipment.

A	Theory of operation						
A-1	Ramp	IETM			* / /	* / /	
A-2	Ramp Door	IETM			* / /	* / /	
B	Functional Check						
B-1	Ramp actuators	IETM			* / /	* / /	
B-2	Ramp door actuators	IETM			* / /	* / /	
C	Fault Isolation						
C-1	Ramp actuators	IETM			* / /	* / /	
C-2	Ramp door actuators	IETM			/ /	* / /	
D	Organizational Maintenance						
D-1	Ramp				/ /	/ /	
D-1.1	Bleed cargo ramp system	IETM NA 01-1A-17			* / /	* / /	
D-1.2	Rig ramp actuator	IETM			* / /	* / /	
D-1.3	R&R ramp actuator (l)	IETM			* / /	* / /	
D-1.4	R&R ramp control valve	IETM			/ /	/ /	
D-1.5	Replace pump, hydraulic, electric motor drive	IETM			/ /	/ /	
D-2	Ramp door				/ /	/ /	
D-2.1	Bleed cargo door system	IETM NA 01-1A-17			/ /	* / /	
D-2.2	R&R door latch actuator (l)	IETM			/ /	* / /	
D-2.3	R&R ramp door actuator/slave	IETM			/ /	/ /	
D-2.4	R&R ramp door actuator, master	IETM			/ /	/ /	
D-2.5	Rig ramp door actuator	IETM			/ /	* / /	

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B.10 Demonstrates/applies knowledge of theory of operation and performs applicable organizational level maintenance on **Aircraft composite/structural component repair UNS 5100** using appropriate maintenance procedures and support/test equipment.

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
A	Theory of operation						
A-1	Composite repair structures/structural components	IETM NA 01-1A-1			* / /	* / /	
A-2	Structural repair components	IETM NA 01-1A-1			* / /	* / /	
B	Functional check						
B-1	Performs composite and structures/ structural component assessment for failure	IETM NA 01-1A-1			* / /	* / /	
C	Fault isolation						
C-1	Performs composite and structures/ structural component damage repair assessment	IETM NA 01-1A-1			* / /	* / /	
D	Organizational maintenance						
D-1	R&R body assembly (NORCO)	IETM			/ /	/ /	
D-2	Repair form-in-place gasket mix	IETM			/ /	* / /	
D-3	Repair by R&R rivet oversize	IETM			/ /	* / /	
D-4	Repair aluminum stiffener (ANG)	IETM			/ /	* / /	
D-5	Disbond skin to core (vertic)	IETM			/ /	* / /	
D-6	Repair fadt hole delamination	IETM			/ /	* / /	
D-7	Disbond skin toc ore (horizontal)	IETM			/ /	* / /	
D-8	Alum web 1s bay dblr w/rivet	IETM			/ /	* / /	
D-9	Alum pen dmg w/1s rvtd dblr	IETM			/ /	* / /	
D-10	H/C blind insert R&R	IETM			/ /	* / /	
D-11	Honeycomb 1 side core fill	IETM			/ /	* / /	
D-12	H/C flr pnl 1 sd face & core	IETM			/ /	* / /	
D-13	H/C flr pnl f/s & insert	IETM			/ /	* / /	
D-14	H/C flr pnl f/s & edge band	IETM			/ /	* / /	
D-15	H/C flr pnl edge band damage	IETM			/ /	* / /	
D-16	H/C core fill w/cu mesh	IETM			/ /	* / /	
D-17	H/C core fill	IETM			/ /	* / /	
D-18	H/C core rpl 1/s w/cu mesh	IETM			* / /	* / /	
D-19	H/C core rpl 2/s w/o cu mesh	IETM			* / /	* / /	
D-20	H/C core 2/s rpl w/cu mesh	IETM			* / /	* / /	
D-21	Delam rpr at an edge	IETM			* / /	* / /	
D-22	Delam rpr w/o edge damage	IETM			/ /	* / /	
D-23	Rpr surface dmg, negligible	IETM			* / /	* / /	
D-24	Disbond repair with fasteners	IETM			* / /	* / /	
D-25	Replace click studs	IETM			* / /	* / /	
D-26	R&R upper main cabin door 2rs1	IETM			* / /	* / /	
D-27	R&R lower main cabin door 2rs2	IETM			* / /	/ /	
D-28	R&R ramp assembly, cargo 3CB1	IETM			/ /	* / /	
D-29	Bolted alm 1s patch on alum	IETM			/ /	/ /	

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DA B.10 (Continued)

TASK #	TASK DESCRIPTION	REFERENCE	WUC	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
D-30	H/C core 2/s rpl w/cu mesh	IETM			/ /	* / /	
D-31	Vis insp frame fastener hole damage	IETM			/ /	* / /	
D-32	R&R side window (instl wet)	IETM			* / /	* / /	
D-33	R&R overhead window (instl wet)	IETM			/ /	/ /	
D-34	R&R fwd window (instl wet)	IETM			* / /	* / /	
D-35	R&R cabin window, fwd (esc hatch)	IETM			/ /	* / /	
D-36	R&R door window fs 289	IETM			/ /	/ /	
D-37	R&R inlet lower outer body assembly	IETM			* / /	/ /	
D-38	R&R inlet upper body assembly	IETM			* / /	/ /	
D-39	R&R inlet center body assembly	IETM			* / /	/ /	
D-40	R&R nut cage assembly	IETM			/ /	* / /	
D-41	R&R lkdwn window (instl wet)	IETM			/ /	/ /	
D-42	R&R oversize nut cage assembly	IETM			/ /	* / /	
D-43	R&R captive bolt grommet	IETM			/ /	* / /	
D-44	R&R captive bolt grommet oversize	IETM			/ /	* / /	
D-45	R&R cargo RAMP door assembly	IETM			* / /	* / /	
D-46	Repair TE grip fairing 1/s w/cu mesh	IETM			/ /	* / /	
D-47	Repair metal structures/structural components	IETM			/ /	* / /	
D-48	R&R cherry max/solid rivets and special fasteners	IETM			/ /	* / /	

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APPENDIX A

INDIVIDUAL EXPERIENCE DATA SHEET

INDIVIDUAL DATA

NAME: _____

SSN: _____

FORMAL SCHOOLS

SCHOOLS NAME	DATE COMPLETED

UNIT EXPERIENCE DATA

UNIT	SHOP	BILLET	FROM/TO DATES

COMMENTS:

_____

_____

_____

APPENDIX C

WORK CENTER SUMMARY
TILT ROTOR AIRFRAMES MECHANIC (MOS 6156)

WORK CENTER NAME/NUMBER _____

NAME/MOS	LEVEL	A.1	A.2	A.3	A.4	A.5	B.1	B.2	B.3	B.4	B.5	B.6	B.7	B.8	B.9	B.10
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															
	II						XXXX	XXXX	XXXX							
	III															
	IV															

DATE: August 2002

APPENDIX D

SUPPROT EQUIPMENT LICENSING RECORD

SUPPORT EQUIPMENT NOMENCLATURE	REFERENCE	PHASE I	PHASE II	LICENSED	EXPIRATION

NAME/SSN _____ RANK _____ MOS _____ DATE: August 2002