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## Acknowledgments

"In the name of ALLAH, Most Gracious, Most Merciful. Read, In the name of thy Lord and Cherisher, Who created. Created man from a [leech-like] clot. Read, and thy Lord Is Most Bountiful, He Who taught [the use of] the pen. Taught man that Which he knew not. Nay, but man doth Transgress all bounds. In that he looketh Upon himself as self-sufficient. Verily, to thy Lord Is the return [of all]."

(The Holy Quran, Surah No.96)

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# TABLE OF CONTENTS

ACKNOWLEDGMENTS .....	iv
LIST OF FIGURES .....	iv
LIST OF TABLES .....	iv
LIST OF ABBREVIATIONS .....	iv
ABSTRACT .....	iv
CH. 1 INTRODUCTION .....	1
1.1. Introduction.....	1
CH. 2 BACKGROUND.....	3
2.1. Aramco History .....	3
2.2. Aviation Department Record.....	4
CH. 3 AVIATION AND AIRCRAFTS AT ARAMCO .....	5
3.1. Rotor Wing Aircrafts .....	5
3.1.1. Bell 214 ST .....	6
3.1.2. A109E .....	10
3.2. Aviation Department .....	14
CH. 4 HANGER UNIT.....	16
4.1. Maintenance Definitions.....	16
4.1.1. Lubrication and Servicing (LU/SV).....	16
4.1.2. Operational Check (OC) .....	17
4.1.3. Functional Check (FC).....	17
4.1.4. Visual Check (VC).....	17
4.1.5. General Visual Inspection (GVI).....	17
4.1.6. Detailed Inspection (DI) .....	18
4.1.7. Special Detailed Inspection (SDI) .....	18
4.1.8. Restoration (RS).....	18
4.1.9. Discard (DS) .....	18
4.2. Inspection.....	19
4.2.1. Definition of Inspection .....	19
4.2.1.1.A Inspection .....	19
4.2.1.2.B Inspection .....	20

4.2.1.3.C Inspection .....	20
4.2.1.4.D Inspection .....	20
4.2.1.5.E Inspection .....	21
4.2.1.6.Special Inspection .....	21
4.2.1.7.Conditional Inspections .....	21
4.2.2. Inspection during the Hanger Period .....	22
4.2.2.1.B Check.....	22
4.2.2.2.C Check.....	30
4.3. Activities Performed.....	34
4.3.1. General Procedures during Inspections .....	34
4.3.1.1.Ground Servicing .....	34
4.3.1.2.Items Placed .....	35
4.3.2. Some Tasks Performed .....	36
4.3.2.1.Main Driveshaft .....	36
4.3.2.2.Borescope Inspection.....	37
4.3.2.3.Sliding Cargo Door .....	38
CH. 5 AVIONICS SHOP.....	47
5.1. Some Tasks Performed .....	48
5.1.1. Engine No. 2 Chip Detector Caution Light .....	48
5.1.2. Generators .....	50
5.1.3. Starter.....	52
5.1.4. SCAS.....	54
CH. 6 QUALITY CONTROL UNIT.....	61
6.1. Duties and Responsibilities.....	61
6.2. Some Tasks Performed .....	63
6.2.1. Power Assurance.....	63
6.2.2. Engine Topping.....	66
6.2.2.1.Hydromechanical Controls .....	66
6.2.2.2.Electronic Controls .....	67
6.2.2.3.What Is The Engine Topping? .....	69
CH. 7 MATERIAL UNIT.....	72
7.1. Material Specialist .....	72
7.2. Shelf Life .....	74
7.2.1. General.....	74

7.2.2. Responsibility .....	74
7.2.3. Examples of Components That Require Shelf Life Restrictions .....	75
7.3. Cannibalized Parts .....	76
7.3.1. From Aircraft To Aircraft .....	77
7.3.2. From Spare Accessory to Aircraft .....	77
CH. 8 PLANNING UNIT .....	79
8.1. Duties & Responsibility.....	79
8.2. Rotor Wing Planning Records .....	81
8.3. Examples of Some Tasks Performed.....	87
CH. 9 ENGINEERING UNIT .....	95
9.1. Duties & Responsibility.....	95
9.1.1. General.....	95
9.1.2. Lead Engineers (FW or RW) .....	97
9.1.3. Duties & Responsibility for Helicopters Fleet.....	99
9.2. Some Tasks Performed .....	103
9.2.1. Aircraft on the Ground “AOG” Status Report.....	103
9.2.2. N709H Weekly Progress Report.....	105
9.2.3. A109E”Power Recovery” Engine Chemical Wash .....	107
CH.10 THE PROJECT .....	116
10.1. Introduction.....	116
10.2. General Information.....	118
10.2.1. Arrival Date of the Aircraft.....	118
10.2.2. Reading of HRS, LDG and MCY for all 109 Fleet .....	118
10.3. Landing Gear Wheel.....	119
10.3.1. Wheels.....	119
10.3.1.1. Main Wheels	
10.3.1.2. Nose Wheel	
10.3.2. Reading of HRS, LDG for all 109 Fleet at Date of Corrosion .....	122
10.3.3. N901AH Landing Gear Information.....	122
10.3.4. N902AH Landing Gear Information.....	124
10.3.5. N903AH Landing Gear Information.....	126
10.3.6. N904AH Landing Gear Information.....	127
10.3.7. N905AH Landing Gear Information.....	129
10.3.8. N906AH Landing Gear Information.....	130

10.3.9. N907AH Landing Gear Information.....	131
10.4. Chip Light.....	133
10.4.1. Chip Burner System.....	133
10.4.2. Electrical Components of the Chip Burner System.....	134
10.4.3. Metal Particle Contamination .....	135
10.4.4. Total # of Problems of Chip Light.....	136
10.4.5. N901AH Chip Light Information .....	138
10.4.6. N902AH Chip Light Information .....	142
10.4.7. N903AH Chip Light Information .....	146
10.4.8. N904AH Chip Light Information .....	149
10.4.9. N905AH Chip Light Information .....	153
10.4.10.N906AH Chip Light Information .....	157
10.4.11.N907AH Chip Light Information .....	161
10.5. Air-Condition.....	165
10.5.1. Air Distribution System.....	165
10.5.2. Air Distribution System Controls and Indicators.....	165
10.5.3. Environmental Control System.....	166
10.5.3.1. Description	
10.5.3.2. ECS Components	
10.5.3.3. Engine Bleed Air Circuit	
10.5.4. Air Conditioning Unit.....	170
10.5.5. AC Evaluation OF N902AH.....	172
10.5.6. AC Evaluation OF N904AH.....	175
10.5.7. AC Evaluation OF N903AH.....	178
10.6. Conclusion .....	182
CH.11 CONCLUSIONS .....	184
11.1. Conclusions.....	184
REFERENCES .....	186
APPENDICES .....	187

## LIST OF FIGURES

Figure 3.1. The Major Components of Bell 214ST .....	7
Figure 3.2. General Description of A109.....	11
Figure 4.1. Some of Ground Servicing .....	34
Figure 4.2. Stand for Transmission.....	35
Figure 4.3. Power Plant’s Stand.....	35
Figure 4.4. Main Driveshaft.....	36
Figure 4.5. Location of the Main Driveshaft .....	37
Figure 4.6. Port Locations for the Borescope Inspection.....	38
Figure 4.7. Sliding Cargo Door.....	39
Figure 4.8. Sliding Cargo Door Assembly.....	39
Figure 4.9. The Damage Areas Location .....	43
Figure 4.10. General Repair Location.....	45
Figure 4.11. Dimension of the Door .....	46
Figure 5.1. Chip Detector Test Schematic .....	48
Figure 5.2. Shows the Engine and Location of Chip Detector .....	49
Figure 5.3. Generators.....	50
Figure 5.4. Generators’ Location .....	51
Figure 5.5. Starter Installation .....	52
Figure 5.6. Start System.....	53
Figure 5.7. AFCS Control Axis .....	54
Figure 5.8. SCAS Components.....	55
Figure 5.9. Location of SCAS Assembles .....	56
Figure 5.10. #1 and #2 Show Pedals Used for Control Yaw .....	57
Figure 5.11. Control Pedals .....	57
Figure 5.12. SCAS Block Diagram.....	58
Figure 5.13. AFCS Engage/Annunciator Panel .....	59
Figure 5.14. SCAS Control Panel.....	60
Figure 6.1. Helicopter Log Box .....	63
Figure 6.2. Power Assurance Chart-Ground Operation.....	64
Figure 6.3. Air Data Computer Display.....	64

Figure 6.4. Hydromechanical Unit (HMU).....	66
Figure 6.5. Fuel System Components .....	67
Figure 6.6. Electronic Control Unit (ECU).....	68
Figure 6.7. Electronic Control Unit Location .....	68
Figure 6.8. Engine Topping Limits Chart.....	71
Figure 7.1. Cannibalized Parts Tag.....	78
Figure 8.1. Maintenance Organizational Chart.....	88
Figure 8.2. 212 Flying Hours Graph.....	89
Figure 8.3. 214ST Flying Hours Graph .....	90
Figure 8.4. 412EP Flying Hours Graph .....	90
Figure 8.5. A109E Flying Hours Graph.....	91
Figure 8.6. 2007 Flying Hours Graph for All Fleet .....	92
Figure 8.7. 2007 Flying Hours Graph for All Fleet .....	92
Figure 8.8. 2006&2007 Flying Hours.....	93
Figure 8.9. 2006&2007 Flying Hours for All Fleet .....	93
Figure 8.10. Aircraft Status Report- Daily.....	94
Figure 10.1. Main Wheel .....	120
Figure 10.2. Nose Wheel .....	120
Figure 10.3. Removal/Installation of Main Wheel .....	121
Figure 10.4. N901AH, Landing Gear .....	123
Figure 10.5. N902AH, Landing Gear .....	125
Figure 10.6. 903AH, Landing Gear .....	127
Figure 10.7. N904AH, Landing Gear .....	128
Figure 10.8. N905AH, Landing Gear .....	129
Figure 10.9. N906AH, Landing Gear .....	130
Figure 10.10. N907AH, Landing Gear .....	132
Figure 10.11. Chip Detector.....	133
Figure 10.12. Chip Burner System .....	134
Figure 10.13. Transmission Chip Light .....	136
Figure 10.14. TRGB Chip Light.....	137
Figure 10.15. Differences Between Tran. Chip Light & TRGB Chip Light.....	137
Figure 10.16. N901AH, Transmission Chip Light .....	140
Figure 10.17. N901AH, TRGB Chip Light .....	141
Figure 10.18. N902AH, Transmission Chip Light .....	144

Figure 10.19. N902AH, TRGB Chip Light .....	145
Figure 10.20. N903AH, Transmission Chip Light .....	147
Figure 10.21. N903AH, TRGB Chip Light .....	148
Figure 10.22. N904AH, Transmission Chip Light .....	151
Figure 10.23. N904AH, TRGB Chip Light .....	152
Figure 10.24. N905AH, Transmission Chip Light .....	155
Figure 10.25. N905AH, TRGB Chip Light .....	156
Figure 10.26. N906AH, Transmission Chip Light .....	158
Figure 10.27. N906AH, TRGB Chip Light .....	160
Figure 10.28. N907AH, Transmission Chip Light .....	163
Figure 10.29. N907AH, TRGB Chip Light .....	164
Figure 10.30. Air Distribution System Schematic .....	165
Figure 10.31. Air Distribution System Controls and Indicators .....	166
Figure 10.32. Environmental Control System- General Configuration .....	167
Figure 10.33. Environmental Control Unit- Schematic .....	167
Figure 10.34. Pressure Reducing/Shut-off Valve- Schematic .....	168
Figure 10.35. Engine Bleed Air Circuit .....	169
Figure 10.36. Air Conditioning Unit- Schematic .....	171
Figure 10.37. Inside Condition VTS Time .....	173
Figure 10.38. Supply and Inside Air Temp.....	173
Figure 10.39. Supply Air VRS Time .....	174
Figure 10.40. Supply Air Temp. & Speed VRS .....	174
Figure 10.41. Inside Air Conditional VRS Time .....	176
Figure 10.42. Supply Air Condition VRS Time .....	176
Figure 10.43. Inside & Supply Temp. VRS. Time .....	177
Figure 10.44. Supply Temp. & Air Speed VRS Time .....	177
Figure 10.45. Inside Condition VRS Time .....	179
Figure 10.46. Supply Air Conditioned VRS Time .....	179
Figure 10.47. Inside & Supply Temp. VRS Time .....	180
Figure 10.48. Supply Temp. & Air VRS Time.....	180
Figure 10.49. Comparison of the Inside Air Temp. for the Three Air Crafts .....	181
Figure 10.50. Comparison of the Supply Air Temp. for the Three Air Crafts .....	181
Figure 10.51. Dry Bulb Temperature.....	183

## LIST OF TABLES

Table 1.1. Coop Training Program .....	2
Table 3.1. Helicopter Registrations by Types.....	5
Table 8.1. List of Aircrafts' Fleet .....	87
Table 8.2. Air Craft Fleet .....	89
Table 9.1. AOG Status Report .....	104
Table 10.1. Electrical Components of Chip Burner System.....	134
Table 10.2. Corrective action for metal particles contamination.....	135

## LIST OF ABBREVIATIONS

MGB	Main Gear Box
MGT	Measured Gas Temperature
N1	Gas Turbine Speed
NF	Free Turbine Speed
Ng (N1)	Gas Generator Speed
NG	Gas Generator Speed
NR	Rotor Speed
OAT	Outside Air Temperature
ECU	Engine Control Unit
CPU	Central Processor Unit
NP	Engine Power Producer

## **Abstract**

This report discusses comprehensively the COOP training accomplishments with the Aviation Department in Saudi ARAMCO Company. The report gives a brief background about ARAMCO, the Aviation Department, and an overview about most of what has been learned throughout the COOP training period. Also, many assignments have been accomplished during this period. The goal of the design work is to give an idea about some repeating problems, and describe them in way such that we can end with a solution or at least come out with opinions to improve those problems. I hope that I can explain my work in appropriate way. The report is supported with all technical information such as calculations, diagrams, drawings and illustrations.