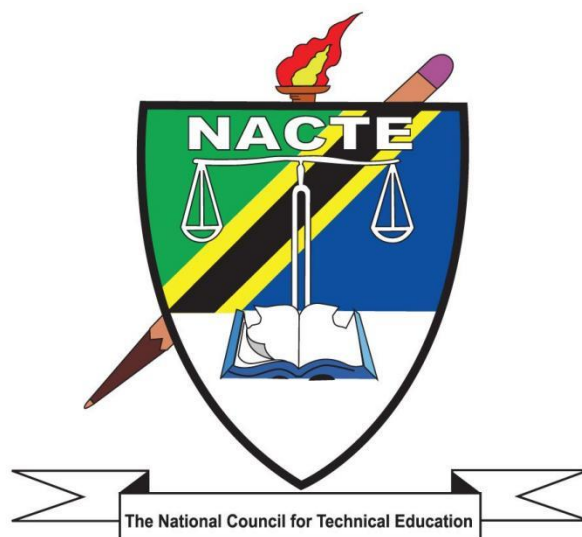


NATIONAL COUNCIL FOR TECHNICAL EDUCATION



SEPTEMBER 2022

PROPOSED OCCUPATIONAL STANDARDS

OCCUPATION: AVIONICS MAINTENANCE ENGINEERING TECHNICIAN

LEVEL: NTA 6

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FOREWORD

The National Council for Technical Education (NACTE) is a corporate body established by the National Council for Technical Education Act, Cap.129. The Act provides a legal framework for the Council to coordinate the provision of technical education and training in Tanzania. The mandate of NACTE is three-fold, namely; Regulatory, Quality Assurance and Policy Advisory.

In discharging its mandate, the Council has been charged with the responsibilities, among others, to:

- (a) assist technical institutions in the transmission of knowledge, principles and training in the field of technical education and training for the benefit of the people of Tanzania;
- (b) assist technical institutions in the overall development of the quality of education they provide and to promote and to maintain approved academic standards;
- (c) establish and make awards in technical education which are consistent in standard and comparable to related awards in Tanzania and internationally; and
- (d) ensure that the quality of education required for the awards is met and maintained throughout the duration of the delivery of the course.

In the course of execution of these responsibilities, the Council has been instituting various measures aiming at advancing the quality of training provided in technical institutions in respect of the changing demands of the labour market, both local and international.

To achieve the above obligation, NACTE, under the Ministry of Education, Science and Technology implemented the East Africa Skills for Transformation and Regional Integration Project (EASTRIP), a project aiming at promoting regional integration through supporting the regional corridors and sector markets, developing common standards and qualifications, and promoting mobility of students, faculty, and graduates. The project supports the Government of Tanzania to address shortage of skills in five sectors namely:

- (a) Energy;
- (b) Construction;
- (c) Information and Communication Technology (ICT);
- (d) Transportation; and
- (e) Agri business.

To address the skills, miss-match and shortage in the five (5) sectors in the country, the project funded, among others, a component of Development of Occupational Standards for Technical and Vocational Education and Training (TVET). In this regard, NACTE endeavoured to identify qualified and highly experienced experts in the five sectors from both the industry and training institutions to carry out the development of Occupational Standards. The exercise was carried out at Morogoro Teachers College – Morogoro from 27th August to 24th September, 2021. The output of the exercise is Occupational Standards for 14 occupations. Occupational standards for Avionics Maintenance Technician are among the occupational standards for 14 occupations which have been developed.

Since Occupational Standards are statements of work performance reflecting the ability to successfully complete the functions required in an occupation, as well as the application of knowledge, skills, attitudes and understanding in an occupation, it is the Council's expectations that the developed standards will form a robust base for decision making and provide explicit guidance to policy makers, curriculum developers, educators, employers and other stakeholders in matters related to manpower planning as well as execution of Technical and Vocational Education and Training undertakings.

Prof. J. W. Kondoro

Dar es Salaam

Chairman

September, 2021

ACKNOWLEDGEMENT

The National Council for Technical Education (NACTE) is charged with the mandate to be the Quality Assurance organ of the Government in matters related to Technical and Vocational Education and Training (TVET) and production of qualified manpower for both local and international labour markets. In order to realize this obligation, NACTE endeavours to institute policies, guidelines and standards and to set the quality benchmarks for training institutions.

However, this is only possible if there is a strong base, linking the training institutions on one hand and the demands of the industry/labour market for relevant manpower on the other hand. Therefore, the Council undertook a step to develop Occupational Standards in sectors considered to be the engine to steer the country's desire to achieve an industrial economy. This exercise would not be a success without the input and support from our stakeholders. I am indebted to acknowledge some of them here.

I wish to acknowledge and appreciate the support from the Ministry of Education, Science and Technology through the East Africa Skills for Transformation and Regional Integration Project (EASTRIP) for the financial support which facilitated the preparation of this document. I wish also to appreciate Mrs Leah Lukindo and Eng. Dr Simon Baregu for the tireless efforts and commitment in facilitating and guiding the standards development process, Ms. Eileen Tzamburakis and Ms. Chausiku Yakweli Ibrahim for compiling and type setting the final document; and the NACTE Secretariat for coordinating the whole activity.

In a very special way I wish further to extend my sincere gratitude to this team of wonderful experts who tirelessly dedicated their time and availed their invaluable intellect in the preparation of this document. I would like to recognise the colossal inputs of the following experts:

S/N	Name	Designation	Organization
1	Eng. Edwin Isidory	Assistant Lecturer	National Institute of Transport (NIT)
2	Eng. Joseph Mwampishi	Principal Instructor II	National Institute of Transport (NIT)
3	Eng. Sebastian A. Mmari	Inspector	Tanzania Civil Aviation Authority

S/N	Name	Designation	Organization
4	Eng. Abdallah Katongo	Aircraft Maintenance Engineer	Air Tanzania Company Limited

In addition, NACTE hopes to further enhance the internationalization of occupational standards and promote the modernization and internationalization of industries, facilitating Tanzania's integration into the international market and exploiting its development potential. Therefore, NACTE has invited China-Africa Vocational Education Alliance and China-Africa (Chongqing) Vocational Education Alliance to participate in the development, revision and review of occupational standards documents in collaboration with Chinese vocational institutions, so as to make use of their rich experience in vocational education efforts and rely on China's advanced and complete industrial chain and its position in the international market to contribute to the development of vocational education and related industries in Tanzania.

Therefore, I would like to express my sincere gratitude to this specialized team of Chinese institutions and experts. I thank them for their hard work and dedication, and for contributing their wisdom and experience to the preparation of this document. I would like to thank the following institutions and experts for their support:

S/N	Organization	Name	Technical title/Professional field
1	Chengdu Aeronautic Polytechnic	Peng Yana	Avionics Maintenance
2		Yang Xiangling	Internationalization of Vocational Education
3		Ge Jian	Avionics Maintenance
4		Zhang Weirui	Avionics Maintenance
5		Chen Julian	Avionics Maintenance
6		Wang Changhao	Aviation Mechanical and Electrical Equipment Maintenance
7		Yang Peiyu	Internationalization of Vocational Education
8		Jiang Hongbing	Basic Aviation Skills
9		Luo Tianhai	Basic Aviation Skills
10		Zhai Qunying	Avionics Maintenance
11		Luo Wen	Avionics Maintenance
12		Liu Xuhui	Aviation Mechanical and Electrical Equipment Maintenance
13		Wang Pu	Avionics Maintenance
14		Du Yingjie	Avionics Maintenance

Prof. J. W. Kondoro

Dar es Salaam

Chairman

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ABBREVIATIONS

AC	Alternating Current
ADC	Air Data Computer
ADF	Automatic Direction Finder
AFCS	Automatic Flight Control System
AMM	Aircraft Maintenance Manual
AMO	Approved Maintenance Organization
AoA	Angle of Attack
APU	Auxiliary Power Unit
ASI	Airspeed Indicator
ATC	Air Traffic Control
ATO	Approved Training Organization
CSDU	Constant Speed Unit
CVR	Cockpit Voice Recorder
DC	Direct Current
DME	Distance Measuring Equipment
EADI	Electronic Attitude Direction Indicator
ECAM	Electronic Centralized Aircraft Monitoring System
EEC	Engine Electronic Control
EGT	Engine Gas Temperature
EHSI	Electronic Horizontal Situation Indicator
EICAS	Engine Indicating and Crew Alerting System
ELT	Emergency Locator Transmitter
EPR	Engine Pressure Ratio
FDR	Flight Data Recorder
FMC	Flight Management Computer
FMS	Flight Management System
GPS	Global Positioning System
GPU	Ground Power Unit
GPWS	Ground Proximity Warning System
HF	High Frequency
ITT	Inter Turbine Temperature
MCDU	Multifunction Control and Display Unit
NACTE	National Accreditation Council of Technical Education
NOS	National Occupational Standards
OS	Occupational Standards
PFD	Primary Flight Displays
PPE	Personal Protective Equipment
SELCAL	Selective-calling Radio System
TAT	Total Air Temperature
TCAA	Tanzania Civil Aviation Authority
TCAS	Traffic Collision Avoidance System
TET	Technical Education and Training
TRU	Transformer Rectifier Unit
TVET	Technical and Vocational Education and Training
VHF	Very High Frequency
VOR	VHF Omnidirectional Radio Range
VSI	Vertical Speed Indicator

GLOSSARY OF TERMS

CIRCUMSTANTIAL KNOWLEDGE:	Detailed knowledge, which allows the decision-making in regard to different circumstances and cross cutting issues
Competence:	The ability to use knowledge, understanding, practical and thinking skills to perform effectively to the workplace standards required in employment.
Competency:	A description of the ability one possesses when able to perform a given occupational task effectively and efficiently.
Competency-Based Education:	An instructional program that derives its content from validated tasks and bases assessment on the learner's performance
Curriculum:	A description or composite of statements about “what is to be learned” by the trainee/student in a particular instructional programme; a product that states the “intended learning outcomes”.
Educational/Training Programme:	The complete curriculum and instruction (what and how) that is designed to prepare a person for employment in a job or other particular performance situation.
Occupation:	A specific position requiring the performance of specific tasks – essentially the same tasks are performed by all employees having the same title. (Example: baker)
Occupational Analysis:	A process used to identify the tasks that are important to employees in any given occupation
Occupational Area:	This is a broad grouping of related jobs. Example: food service
Occupational Competence:	The application of knowledge and skills to perform consistently to the standards required in the work context.
Occupational Standards:	Specific requirements of competences people are expected to demonstrate in a particular occupational area, including

knowledge and relevant attitudes. They also act as performance tool of assessment of the pre – scribed outcomes.

**PERFORMANCE
CRITERIA:**

Indicate the expected end results or outcome in form of evaluative statements.

Skills:

The ability to perform occupational tasks with a high degree of proficiency within a given occupation. Skill is conceived of as a composite of three completely interdependent components: cognitive, affective, and psychomotor.

Standards:

it is a set of statement, which if proved true under working conditions, means that an individual is meeting an expected level and type of performance

Task Analysis:

The process of analysing each task to determine the steps, related knowledge, attitudes, performance standards, tools and materials needed, and safety concerns required of employees performing it.

Tasks:

A work activity that has a definite beginning and ending, is observable or measurable, consists of two or more definite steps, and leads to a product, service, or decision.

Underpinning Knowledge:

This is crucial knowledge that an individual must acquire in order to demonstrate competences that are associated in performing a given task.

Verification Process:

The process of having experts review and conform the importance of the task (competency) statements identified through occupational analysis. Other questions, such as the degree of task learning difficulty are also frequently asked. This process is also sometimes referred to as validation.

1.0. INTRODUCTION

Technical Education and Training (TET) is one of the most important education sub-sectors in Tanzania, responsible for developing a skilled workforce to support the country's industrialization economic agenda. Tanzania's Development Vision 2025 intends to raise the country's economy to a middle-income status. This requires a skilled workforce that is aligned with the needs of the public and private sectors of the economy. The National Council for Technical Education has begun the job of drafting Occupational Standards that will eventually be adopted as National Occupational Standards for TET in order to ensure that it meets the needs of the labour market and the country's economic agenda.

National Occupational Standards (NOS) are performance criteria that are matched with labour market demands. Each National Occupation Standard describes functions, performance standards, and knowledge/understanding for one important function or task. They combine skills, knowledge, and attitudes to describe best practice. They are useful tools for establishing job roles, personnel recruiting, supervision, and appraisal, as well as TET standards. They're also helpful for benchmarking and harmonizing qualifications on a national and international level. Standards, in general, provide a solid framework for high-quality TET that is labour market-relevant, current and consistent in delivery across all public and private institutions.

However, it must be noted that, Occupational Standards and Training standards/qualifications standards are different. Occupational standards are defined in terms of activities performed by a person in a selected occupation (e.g., an electrical engineer designs electrical wiring circuits, performs trouble shooting in electrical wiring, etc.) and they are usually defined by employers following procedures agreed upon by all stakeholders. Education and training standards are developed from the activities defined in occupational standards, and they include learning objectives to ensure that the necessary skills and knowledge are developed by a person to enable him or her to function at an agreed level in an occupation. Education and Training standards are used to define curricula in training institutions. It is however critical that there must be a direct link between the occupational standards and the training standards to respond to demands of the labour market.

In TET delivery, Tanzania adopted the Competence Based Education and Training (CBET) approach. The CBET approach focuses on providing learners with the skills and knowledge required to meet the occupational standards. Occupational standards are thus the starting point for developing CBET programs. TET institutions will be required to benchmark their curricula with relevant occupational standards.

Occupational Standards are developed based on a given occupation's current and future demands. As a result, they serve as a means of bridging the gap between the worlds of employment and technical education and training (TET).

The Avionics Maintenance Engineer Occupation has its own set of occupational standards. The document explains how the occupational standards were developed, as well as the scope, the occupational profile in the form of DACUM charts, and the Occupational Standards.

2.0. OCCUPATIONAL STANDARD DEVELOPMENT PROCESS

The Occupational standards development process began with an examination of major documents that guide Tanzanian skill development. The 10-year National Skills Development Strategy (2016-2026) was one of the documents reviewed, and it outlined six (6) economic sectors that should be prioritized when developing skills development programmes. These sectors include: Transport and logistics, Tourism and Hospitality, Agribusiness, Construction, Energy and ICT. NACTE labour market reports were also used in the literature review to determine the skills demand in the Tanzanian labour market as a whole.

After the literature review, a workshop comprised of expert workers and educators with substantial knowledge and experience in the occupation conducted an occupational analysis utilizing the DACUM approach to produce the occupational profile. The analysis resulted in DACUM Charts, which are attached as **Appendix 1** to this document.

The workshop thereafter continued with the development of occupational standards. Experts in Occupational Analysis and Occupational Standards Development facilitated the workshop. Interviews, online surveys, and a stakeholder forum were used to validate the occupational standards. Engineers, supervisory technicians on the job, and experienced Avionics Maintenance

technicians were key informants in the survey to establish occupational trends. This information was used to gain insight from the workplaces regarding trends and changes in the profession, including how well graduates are equipped for working in the occupation. A total of Online surveys were completed by experts from the labour market across the country. Apart from the survey aiding in defining the scope for the occupational analysis, they served to engage a wide cross-section of experts in the occupation. The stakeholders' forum was attended by participants from different parts of the country representing various companies.

3.0. THE SCOPE AND OVERVIEW OF THE OCCUPATION STANDARDS FOR AVIONICS MAINTENANCE ENGINEERING TECHNICIAN

These standards cover a broad range of duties and tasks that can be performed by Avionics Maintenance Engineering Technician. However, the occupational standards are not meant to replace individual job descriptions, they are to be used for guidance in defining skill levels and knowledge for the technician in specific settings or positions. The Avionics Maintenance Engineering Technician may perform tasks in a number of key areas of the occupational standards, but not necessarily in all areas. For example, in large Approved Maintenance Organizations (AMO) other individuals may be employed or designated to perform specific tasks.

The Avionics Maintenance Engineering Technician works in the Approved Maintenance Organization (AMO) to maintain, repair and service different aircrafts operating in air the transport industry. Air transport includes cargo-carrying and passenger-carrying aircraft; these aircrafts are called commercial aircrafts. Commercial aircraft move goods and people from one part of the world to the other through air, operated by a cadre of trained and qualified personnel. There are many types of aircrafts and of various sizes, models, and different operating specifications. Avionics Maintenance Engineering Technicians play an important role in ensuring compliance with airworthiness requirements of an aircraft in accordance with Tanzania Civil Aviation Authority (TCAA) Regulations. Avionics Maintenance Engineering Technician performs the following duties under the supervision of a certifying Avionics Maintenance Engineer:

1. Perform maintenance of aircraft instrument systems,
2. Perform maintenance of aircraft radio communication and navigation systems,

3. Perform maintenance of aircraft radar systems,
4. Perform maintenance of aircraft autopilot system,
5. Perform maintenance of aircraft's electric power generation, distribution and conversion systems,
6. Perform maintenance of aircraft's electrical controlled and operated systems,
7. Perform maintenance of aircraft lighting systems.

The Occupational standards have been clustered into NTA qualification levels i.e. NTA level 4, 5 and 6.

4.0. VALIDITY PERIOD

The occupational standards will be valid for 3-5 years due to the fast-changing nature of technology. The review will proceed in the same manner as the previous one, with new occupational standards being developed based on current labour market Information.

5.0. OCCUPATIONAL STANDARD

5.1 OCCUPATIONAL STANDARDS FOR AVIONICS MAINTENANCE ENGINEERING TECHNICIAN - LEVEL 6

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIR DATA SYSTEM	TASK NO.	6011
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s air data system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Pitot/static pressure test adapter kit, blanking plugs, target proximity sensor deactivator test, stop watch, external power sources, computers and tool box Materials: Locking wires, Tie wraps, Cleaning agent		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform pitot static leak test; 7. Perform hydrostatic system leak test; 8. Perform atmospheric data module function check; 9. Perform inspection of:		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Perform pitot static leak test; 1.2. Carry out replacement of air data system components. 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of air data system; 2.2. Operation of pitot static leak test; 2.3. Use of basic tools and test equipment. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Aerodynamics; 3.4. Electronic fundamentals;	

a. Total Air Temperature probes b. Pitot static probes c. Static vent d. Altimeter e. Vertical Speed Indicator f. Mach meter indicator g. Airspeed Indicator h. Air Data Computer i. Pipelines and flexible hoses j. Angle of Attack vanes and probes k. Drain straps and associated equipment l. Altitude and airspeed switches m. Flight Data Recorder 10. Carry out operational check of probe heating system, air data computer and flight data recorder; 11. Replace below air data instrument components as per airworthiness requirements: a. Total Air Temperature probes b. air data instrument indicators; c. Pitot static probes d. Altimeter e. Vertical Speed Indicator f. Mach meter indicator g. Airspeed Indicator h. Air Data Computer i. Pipelines and flexible hoses j. Angle of Attack vanes and probes k. Drain straps and associated equipment l. Altitude and airspeed switches m. Flight Data Recorder 12. Perform final inspection and sign task cards; 13. Clean work place, tools and equipment;	3.5. Electrical fundamentals; 3.6. Digital techniques; 3.7. Maintenance practices; 3.8. Human factors; 3.9. Basic construction of air data system instruments; 3.10. Types and operation of air data system instruments; 3.11. Calibration and errors in air data system ; 3.12. Civil aviation regulation; 3.13. Aircraft maintenance manuals; 3.14. Aircraft maintenance program. 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
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14. Store tools and equipment appropriately; 15. Present task cards to the certifying engineer for certification and aircraft release to service; 16. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of the aircraft's air data system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIR DATA SYSTEM	TASK NO.	6012
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s air data system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Pitot/static pressure test adapter kit, blanking plugs, target proximity sensor deactuator tests, stop watch, external power sources, computers and tool box. Materials: Drain straps and air data pipelines		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review Aircraft status reports; 2. Identify the fault as per appropriate troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task; 5. Perform troubleshooting of air data system; 6. Perform pitot static leak test; 7. Perform hydrostatic system leak test; 8. Perform atmospheric data module function check; 9. Perform inspection of: a. Total Air Temperature probes b. Pitot static probes c. Static vent d. Altimeter		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Perform pitot static leak test; 1.2. Carry out troubleshooting of air data system; 1.3. Carry out replacement of air data system components. 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of air data system; 2.2. Operation of pitot static leak test; 2.3. Use of basic tools and test equipment. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Aerodynamics; 3.4. Electronic fundamentals;	

e. Vertical Speed Indicator f. Mach meter indicator g. Airspeed Indicator h. CDS i. Clock adjustment control device j. Air Data Computer k. Pipelines and flexible hoses l. Angle of Attack vanes and probes m. Drain straps and associated equipment n. Altitude and airspeed switches o. Flight Data Recorder 10. Carry out operational check of probe heating system, air data computer and flight data recorder; 11. Replace defective: a. Total Air Temperature probes b. air data instrument indicators c. Pitot static probes d. Altimeter e. Vertical Speed Indicator f. Mach meter indicator g. Airspeed Indicator h. Air Data Computer i. Pipelines and flexible hoses j. Angle of Attack vanes and probes k. Drain straps and associated equipment l. Altitude and airspeed switches m. Flight Data Recorder 12. Perform final inspection and sign appropriate defect rectification sheets; 13. Clean work place, tools and equipment; 14. Store tools and equipment appropriately; 15. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 16. Return the aircraft to its normal configuration.	3.5. Electrical fundamentals; 3.6. Digital techniques; 3.7. Maintenance practices; 3.8. Human factors; 3.9. Basic construction of air data system instruments; 3.10.Types and operation of air data system instruments; 3.11.Calibration and errors in air data system; 3.12.Civil aviation regulation; 3.13.Use of Aircraft maintenance manuals (AMM); 3.14.Aircraft maintenance program. 4.0. Essential skills 4.1 Computer skills; 4.2 Critical thinking; 4.3 Problem solving skills; 4.4 Pressure management; 4.5 Team work; 4.6 Communication skills; 4.7 Integrity.
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DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of the aircraft's air data instrument is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF ELECTRONIC DISPLAY SYSTEMS	TASK NO.	6013
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s electronic display system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, heat shrink sleeves and air filters		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instructions; 2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. EADI b. EHSI c. Primary Flight Display d. Symbol generators e. EICAS/ECAM		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1 Carry out replacement of electronic display systems. 2.0. Principles The person must be able to explain the principles of 2.1. Operation of electronic display systems. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices;	

f. Multifunction Control and Display Unit g. CDS h. Clock adjustment control device 7. Carry-out operational check of: a. EADI b. EHSI c. Primary Flight Display d. Symbol generators e. EICAS/ECAM f. Multifunction Control and Display Unit g. CDS h. Clock adjustment control device 8. Replace below air data instrument components as per airworthiness requirements: a. EADI b. EHSI c. Primary Flight Display d. Symbol generators e. EICAS/ECAM f. CDS g. Clock adjustment control device 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	3.7. Human factors; 3.8. Basic construction of electronic display systems; 3.9. Types and operation of electronic display systems; 3.10. Civil aviation regulation; 3.11. Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1 Computer skills; 4.2 Critical thinking; 4.3 Problem solving; 4.4 Pressure management; 4.5 Team work; 4.6 Communication; 4.7 Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of the aircraft's electronic display systems is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF ELECTRONIC DISPLAY SYSTEMS	TASK NO.	6014
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s electronic display system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, heat shrink sleeves and air filters		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review aircraft status reports; 2. Identify the fault as per appropriate troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task; 5. Perform troubleshooting of: a. EADI b. EHSI c. Primary Flight Display d. Symbol generators e. EICAS/ECAM f. Multifunction Control and Display Unit g. CDS h. Clock adjustment control device		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to carry out replacement of electronic display systems. 2.0. Principles The person must be able to explain the principles of: 2.1 Operation of electronic display systems. 3.0. Theories The person must be able to explain: 3. 1. Aviation physics; 3. 2. Aviation mathematics; 3. 3. Electronic fundamentals; 3. 4. Electrical fundamentals; 3. 5. Digital techniques; 3. 6. Maintenance practices; 3. 7. Human factors;	

6. Perform inspection of: a. EADI b. EHSI c. Primary Flight Display d. Symbol generators e. EICAS/ECAM f. Multifunction Control and Display Unit g. CDS h. Clock adjustment control device 7. Carry-out operational check of: a. EADI b. EHSI c. Primary Flight Display d. Symbol generators e. EICAS/ECAM f. Multifunction Control and Display Unit g. CDS h. Clock adjustment control device 8. Replace defective: a. EADI b. EHSI c. Primary Flight Display d. Symbol generators e. EICAS/ECAM f. CDS g. Clock adjustment control device 9. Perform final inspection and sign appropriate defect sheets; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present appropriate defect sheets to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	3. 8. Basic construction of electronic display systems; 3. 9. Types and operation of electronic display systems; 3. 10. Civil aviation regulation; 3. 11. Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of the aircraft's electronic display systems is performed as per latest procedures

	approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools. 2. Extent of responsibility 3. Occupational safety and health

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF ENGINE INSTRUMENT SYSTEM	TASK NO.	6015
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s engine instrument system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, computers, Tools kit, Maintenance computer to Engine Monitoring Unit interface cable, Igniter cable, Digital Turbine Temperature Tester, Circuit breaker tag, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contract extraction/insertion tools. Materials: Contract cleaner, contact enhancer, electrical splices, electrical wires, soldering materials and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task card and maintenance instructions; 2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Select right tools, equipment and safety gears for the task; 6. Observe health and safety when performing the task; 7. Perform inspection of: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to carry out replacement of engine instrument display systems. 2.0. Principles The person must be able to explain the principle of operation of engine instrument display systems. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors;	

d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) j. Engine Vibration Indicator k. Engine pipelines and transmission electrical wires l. Flap status indicator 8. Carry-out operational check of: a. Engine rotational speed indicating system b. Fuel indicating system c. Oil pressure gauges d. Oil quantity indicating system e. Engine thrust indicating system f. Engine temperature indicating system g. Engine vibration indicating system h. Flap status indicator system 9. Replace below air data instrument components as per airworthiness requirements: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) j. Engine Vibration Indicator k. Engine pipelines and transmission electrical wires l. Flap status indicator 10. Perform final inspection and sign task cards; 11. Clean work place, tools and equipment;	3.8. Basic construction of engine instrument system; 3.9. Types and operation of engine instrument; 3.10. Civil aviation regulation; 3.11. Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1 Computer skills; 4.2 Critical thinking; 4.3 Problem solving skills; 4.4 Pressure management; 4.5 Team work; 4.6 Communication skills; 4.7 Integrity.
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12. Store tools and equipment appropriately; 13. Present task cards to the certifying engineer for certification and aircraft release to service 14. Return the aircraft to its normal configuration	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of the aircraft engine instrument system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1 Safe handling of equipment and tools. 2 Extent of responsibility 3 Occupational safety and health

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF ENGINE INSTRUMENT SYSTEM	TASK NO.	6016
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s engine instrument system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, computers, Tools kit, Maintenance computer to Engine Monitoring Unit interface cable, Igniter cable, Digital Turbine Temperature Tester, Circuit breaker tag, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contract extraction/insertion tools. Materials: Contract cleaner, contact enhancer, electrical splices, electrical wires, soldering materials and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review aircraft status reports; 2. Identify the fault as per appropriate troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task; 5. Perform troubleshooting of: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to carry out replacement of electronic display systems. 2.0. Principles The person must be able to explain the principles of operation of electronic display systems. 3.0. Theories The person must be able to explain: 3.1 Aviation physics; 3.2 Aviation mathematics; 3.3 Electronic fundamentals; 3.4 Electrical fundamentals; 3.5 Digital techniques; 3.6 Maintenance practices; 3.7 Human factors; 3.8 Basic construction of engine instrument system;	

i. Inter Turbine Temperature (ITT) j. Engine Vibration Indicator k. Engine pipelines and transmission electrical wires l. Flap status indicator 6. Perform inspection of: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) j. Engine Vibration Indicator k. Engine pipelines and transmission electrical wires l. Flap status indicator 7. Carry-out operational check of: a. Engine rotational speed indicating system b. Fuel indicating system c. Oil pressure gauges d. Oil quantity indicating system e. Engine thrust indicating system f. Engine temperature indicating system g. Engine vibration indicating system h. Flap status indicator system 8. Replace defective: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) j. Engine Vibration Indicator	3.9 Types and operation of engine instrument; 3.10 Civil aviation regulation; 3.11 Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving; 4.4. Pressure management; 4.5. Team work; 4.6. Communication; 4.7. Integrity.
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k. Engine pipelines and transmission electrical wires l. Flap status indicator 9. Perform final inspection and sign appropriate defect rectification sheets; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present appropriate defect rectification sheets to the certifying engineer certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of the aircraft's engine instrument system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF GYROSCOPIC INSTRUMENT SYSTEM	TASK NO.	6017
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s gyroscopic instrument system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools, vacuum pump and gyroscopic tester tilt table Materials: Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, heat shrink sleeves and air filters		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instructions; 2. Review and implement all applicable airworthiness directives and service bulletins; 3. Select right tools, equipment and safety gears for the task; 4. Perform standby gyroscopic instrument system calibration check; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to carry out replacement of gyroscopic instrument system. 2.0. Principles The person must be able to explain the principle of operation of gyroscopic instrument system. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Gyroscopic theories and principles; 3.9. Basic construction of gyroscopic instrument system; 3.10.Types and operation of gyroscopic instrument system;	

f. Horizontal Situation Indicator / Radio Magnetic Indicator 7. Carry out operational check of: - Attitude sensing unit - Directional sensing unit - Attitude indicator - Turn and bank coordinator - Accelerometer - Horizontal Situation Indicator / Radio Magnetic Indicator 8. Replace below engine instrument system components as per airworthiness requirements: - Attitude sensing unit - Directional sensing unit - Attitude indicator - Turn and bank coordinator - Accelerometer - Horizontal Situation Indicator / Radio Magnetic Indicator 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	3.11.Civil aviation regulation; 3.12.Use of Aircraft maintenance manuals (AMM). 4.0 Essential Skills - Computer skills; - Critical thinking; - Problem solving; - Pressure management; - Team work; - Communication; - Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of the aircraft's gyroscopic instrument system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: - Safe handling of equipment and tools; - Extent of responsibility; - Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF GYROSCOPIC INSTRUMENT SYSTEM	TASK NO.	6018
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s gyroscopic instrument system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools, vacuum pump and gyroscopic tester tilt table Materials: Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, heat shrink sleeves and air filters		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review aircraft status reports; 2. Identify the fault as per appropriate aircraft troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Perform standby gyroscopic instrument system calibration check; 5. Observe health and safety when performing the task; 6. Perform troubleshooting of gyroscopic instrument system: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator / Radio Magnetic Indicator 7. Perform inspection of:		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to carry out replacement of gyroscopic instrument systems. 2.0. Principles The person must be able to explain the principle of operation of gyroscopic instrument systems 3.0. Theories The person must be able to explain: 3.1 Aviation physics; 3.2 Aviation mathematics; 3.3 Electronic fundamentals; 3.4 Electrical fundamentals; 3.5 Digital techniques; 3.6 Maintenance practices; 3.7 Human factors; 3.8 Gyroscopic theories and principles;	

a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator / Radio Magnetic Indicator 8. Carry out operational check of: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator / Radio Magnetic Indicator g. Replace defective: h. Attitude sensing unit i. Directional sensing unit j. Attitude indicator k. Turn and bank coordinator l. Accelerometer m. Horizontal Situation Indicator / Radio Magnetic Indicator 9. Perform final inspection and sign appropriate defect rectification sheet; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present appropriate defect rectification sheet to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	3.9 Basic construction of gyroscopic instrument system; 3.10 Types and operation of gyroscopic instrument; 3.11 Civil aviation regulation; 3.12 Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving; 4.4. Pressure management; 4.5. Team work; 4.6. Communication; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's gyroscopic instrument system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S MAGNETIC COMPASS INSTRUMENTS SYSTEMS	TASK NO.	6019
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s compass instruments as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Tools kit, Computer, Master compass and Nonmagnetic screw driver Materials: Compass deviation correction card		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task card and maintenance instructions; 2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform magnetic compass calibration function check; 7. Perform inspection of:		Detailed knowledge about:: 1.0. Methods The person performing this task must be able to explain how to carry out replacement of aircraft magnetic compass instruments. 2.0. Principles The person must be able to explain the principle of operation of aircraft magnetic compass instruments. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Maintenance practices; 3.4. Human factors; 3.5. Earth’s magnetism and its effect on aircraft magnetic compass;	

a. Flux valve b. Directional gyro c. Radio Magnetic Indicator d. Direct reading compass 8. Carry out operational check of: a. Direct reading compass system b. Remote reading compass system 9. Replace below compass instrument system components as per airworthiness requirements: a. Flux valve b. Directional gyro c. Radio Magnetic Indicator d. Direct reading compass 10. Perform final inspection and sign task cards; 11. Clean work place, tools and equipment; 12. Store tools and equipment appropriately; 13. Present task cards to the certifying engineer for certification and aircraft release to service; 14. Return the aircraft to its normal configuration.	3.6. Basic construction of aircraft magnetic compass instrument system; 3.7. Types and operation of aircraft magnetic compass system; 3.8. Civil aviation regulation; 3.9. Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving; 4.4. Pressure management; 4.5. Team work; 4.6. Communication; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of the aircraft's magnetic compass instruments system is performed as per latest procedures approved by a competent authority and aircraft released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S INSTRUMENT SYSTEMS	DUTY NO.	601
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S MAGNETIC COMPASS INSTRUMENT SYSTEM	TASK NO.	6020
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s magnetic compass instrument system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Tools kit, Computer, Master compass and Nonmagnetic screw driver Materials: Compass deviation correction card		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review aircraft status reports; 2. Identify the fault as per appropriate aircraft troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task; 5. Perform magnetic compass calibration function check; 6. Perform troubleshooting of: a. Flux valve b. Directional gyro c. Radio Magnetic Indicator		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to carry out replacement of aircraft magnetic compass instruments. 2.0. Principles The person must be able to explain the principle of operation of aircraft magnetic compass instruments. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Maintenance practices;	

d. Direct reading compass 7. Perform inspection of: a. Flux valve b. Directional gyro c. Radio Magnetic Indicator d. Direct reading compass 8. Carry out operational check of: a. Direct reading compass system b. Remote reading compass system 9. Replace defective: a. Flux valve b. Directional gyro c. Radio Magnetic Indicator d. Direct reading compass 10. Perform final inspection and sign appropriate defect rectification sheets; 11. Clean work place, tools and equipment; 12. Store tools and equipment appropriately; 13. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 14. Return the aircraft to its normal configuration.	3.4. Human factors; 3.5. Earth's magnetism and its effect on aircraft magnetic compass; 3.6. Basic construction of aircraft magnetic compass instrument system; 3.7. Types and operation of aircraft magnetic compass system; 3.8. Civil aviation regulation; 3.9. Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving; 4.4. Pressure management; 4.5. Team work; 4.6. Communication; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of the aircraft's magnetic compass instruments system is performed as per latest procedures approved by or a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1 Safe handling of equipment and tools; 2 Extent of responsibility; 3 Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	CARRY OUT SCHEDULED MAINTENANCE OF FIRE PROTECTION SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	6021
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s fire protection electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, Fire Squib Circuit Tester, fire detection test unit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Fuses, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft fire protection electrical system components;	

3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. Lavatory smoke detectors b. Cargo hold smoke detectors c. Overheat sensors d. APU fire detection loop e. Engine fire detection loop f. Wing-body overheat detection loop g. Fire warning assemblies h. Overheat sensors i. APU fire extinguishing bottle pressure gauge pressure j. Engine fire extinguishing bottle pressure gauge pressure k. Fire extinguishing bottle release switch l. Pressure-release tabs m. Fire alarm panel n. Portable fire extinguishing bottle 7. Carry out operational and functional check of: a. Lavatory smoke detectors b. APU fire detection system c. Engine fire suppression distribution system d. APU fire suppression distribution system e. Cargo hold fire suppression distribution system	1.2. Carry out operational and function test of fire protection systems. 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft fire detection systems; 2.2. Operation of fire warning and extinguishing systems. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of fire detection systems and their application; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Team work; 4.5. Communication skills; 4.6. Integrity.
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f. Fire and overheat warning system g. Pipeline leakage overheat detection system h. Engine blast cap detonation circuit i. Engine fire extinguishing bottle pressure switch j. Engine shutdown and isolation function 8. Clean and replace below aircraft fire protection electrical system components as per airworthiness requirements: a. Smoke detectors b. Overheat sensors c. Fire warning assemblies d. Overheat sensors e. APU fire extinguishing bottles f. Fire extinguishing bottle pressure switch g. Fire extinguisher bottle pressure relief plate h. Fire extinguishing bottle pressure gauge i. Smoke detector grille j. APU fire extinguishing bottle blast cap k. Engine fire extinguishing bottle blast cap l. Cargo hold fire extinguishing bottle blast cap m. APU fire extinguishing bottle n. Engine fire extinguishing bottle o. Cargo hold fire extinguishing bottle	
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p. Portable fire extinguishing bottle 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft's fire protection electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S FIRE PROTECTION SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	6022
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s fire protection electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, Fire Squib Circuit Tester, fire detection test unit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Fuses, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the aircraft status reports; 2. Identify the problem as per appropriate aircraft troubleshooting manual; 3. Select right tools, equipment and safety gears for the task;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out operational and functional tests of aircraft fire protection electrical system;	

4. Observe health and safety when performing the task; 5. Perform troubleshooting of: a. Smoke detector system b. Fire detection system c. Extinguishing system d. Fire and overheat warning system 6. Perform inspection of: a. Lavatory smoke detectors b. Cargo hold smoke detectors c. Overheat sensors d. APU fire detection loop e. Engine fire detection loop f. Wing-body overheat detection loop g. Fire warning assemblies h. Overheat sensors i. APU fire extinguishing bottle pressure gauge pressure j. Engine fire extinguishing bottle pressure gauge pressure k. Fire extinguishing bottle release switch l. Pressure-release tabs m. Fire alarm panel n. Portable fire extinguishing bottle 7. Carry out operational and functional check of: a. Lavatory smoke detectors b. APU fire detection system c. Engine fire suppression distribution system d. APU fire suppression distribution system e. Cargo hold fire suppression distribution system	1.2. Carry out replacement, inspection and troubleshooting of aircraft fire protection electrical system components; 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft fire detection systems; 2.2. Operation of fire warning and extinguishing systems; 2.3. Aircraft fire protection electrical system Troubleshooting. 3.0. Theories The person must be able to explain: 3.1. Aviation mathematics; 3.2. Aviation physics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of fire detection systems and their application; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Ability to work in the confined environment; 4.6. Team work; 4.7. Communication skills; 4.8. Integrity.
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f. Fire and overheat warning system g. Pipeline leakage overheat detection system h. Engine blast cap detonation circuit i. Engine fire extinguishing bottle pressure switch j. Engine shutdown and isolation function 8. Replace defective: a. Smoke detectors b. Overheat sensors c. Fire warning assemblies d. Overheat sensors e. APU fire extinguishing bottles f. Fire extinguishing bottle pressure switch g. Fire extinguisher bottle pressure relief plate h. Fire extinguishing bottle pressure gauge i. Smoke detector grille j. APU fire extinguishing bottle blast cap k. Engine fire extinguishing bottle blast cap l. Cargo hold fire extinguishing bottle blast cap m. APU fire extinguishing bottle n. Engine fire extinguishing bottle o. Cargo hold fire extinguishing bottle p. Portable fire extinguishing bottle 9. Perform final inspection and sign appropriate defect rectification sheets;	
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10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's fire protection electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S FLIGHT CONTROL ELECTRICAL SYSTEM	TASK NO.	6023
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s flight control electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Fuses, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft flight control electrical system components; 1.2. Carry out operational and function test of flight control electrical system. 2.0. Principles	

4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. Electrical motors b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Power control units g. Flap motors and protection and control h. Trim motors i. Flap sensor plugs 7. Carry out operational and functional check of: a. Flight Control Power Control Units b. Flap motors control system c. Flap protection system d. Trim motor control system e. Stabilizer trim limit switch f. Stabilizer trim isolating switch g. Stabilizer trim override switch h. Joystick stabilizer trim arm and orientation switches i. Flap tilt and asymmetric system j. Spoiler electrical control system relays k. Leading edge device indicator system 8. Replace below aircraft flight control electrical system components as per airworthiness requirements: a. Electrical motors	The person must be able to explain the principles of: 2.1. Operation of aircraft flight control system systems; 2.2. Operation of Electrical motors and actuators used in flight control system; 2.3. Operation of Micro switches, limiting switches and proximity sensors used in flight control system. 3.0. Theories The person must be able to explain: 3.1. Aviation mathematics; 3.2. Aviation physics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic theory of machines and mechanisms; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Computer skills; 4.3. Problem solving skills; 4.4. Ability to work at high heights; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
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b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Flight Control Power Control Units g. Flap motors h. Trim motors i. Flap sensor plugs 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft's flight control electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S FLIGHT CONTROL ELECTRICAL SYSTEM	TASK NO.	6024
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s flight control electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Fuses, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the aircraft status reports; 2. Identify the problem as per appropriate aircraft troubleshooting manual; 3. Select right tools, equipment and safety gears for the task;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to carry out operational and functional tests of aircraft flight control electrical system Carry out replacement, inspection and troubleshooting of aircraft flight control electrical system components.	

4. Observe health and safety when performing the task; 5. Perform troubleshooting of: a. Electrical motors b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Power control units g. Flap motors and protection and control h. Trim motors 6. Perform inspection of: a. Electrical motors b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Power control units g. Flap motors, protection and control h. Trim motors i. Flap sensor plugs 7. Carry out operational and functional check of: a. Flight Control Power Control Units b. Flap motors control system c. Flap protection system d. Trim motor control system e. Stabilizer trim limit switch f. Stabilizer trim isolating switch g. Stabilizer trim override switch h. Joystick stabilizer trim arm and orientation switches i. Flap tilt and asymmetric system	2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft flight control system systems; 2.2. Operation of Electrical motors and actuators used in flight control system; 2.3. Operation of Micro switches, limiting switches and proximity sensors used in flight control system; 2.4. Aircraft flight control electrical system Troubleshooting. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Electronic fundamentals; 3.3. Electrical fundamentals; 3.4. Aviation mathematics; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic theory of machines and mechanisms; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Computer skills; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Ability to work at high heights; 4.6. Team work; 4.7. Communication skills; 4.8. Integrity.
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j. Spoiler electrical control system relays k. Leading edge device indicator system If this fails, replace with: a. Motors b. Actuators - clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Flight control power control unit g. Flap motors h. Trim motor k. Flap sensor plugs 8. Perform final inspection and sign appropriate defect rectification sheets; 9. Clean work place, tools and equipment; 10. Store tools and equipment appropriately; 11. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 12. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's flight control electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S FUEL SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	6025
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s fuel electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, Fuel Quantity Test Set, Fuel Electrical Harness Adapters, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Fuses, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft fuel electrical system components;	

3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. Boost pumps control and indication system b. Ejector system c. Fuel heaters d. Cross feed supply valves, supply and shut-off valves - normal and emergency control e. Fuel level indicator system 7. Carry out operational and functional check of: a. Boost pumps control and indication system b. Ejector system c. Cross feed supply valves, supply and shut-off valves - normal and emergency control d. Fuel level indicator system 8. Replace below aircraft fuel electrical system components as per airworthiness requirements: a. Boost pump control and protection system components b. Ejector system components c. Fuel heaters d. Cross feed supply valves, supply and shut-off valves - normal and emergency valves e. Fuel level indicator system	1.2. Carry out operational and function test of aircraft fuel electrical system. 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft fuel electrical systems; 2.2. Operation of fuel quantity measurement units; 2.3. Operation of fuel pumps; 2.4. Operation of fuel jettison system. 3.0. Theories The person must be able to explain: 3.1. Electronic fundamentals; 3.2. Aviation mathematics; 3.3. Aviation physics; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft fuel measurement and indication systems; 3.9. Different types of fuel grades, their properties and application; 3.10. Use of basic tools and test equipment; 3.11. Civil aviation regulation; 3.12. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Problem solving skills; 4.3. Computer skills; 4.4. Ability to work in confined environment; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
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9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft's fuel electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S FUEL SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	6026
PERFORMAN CE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s fuel electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, Fuel Quantity Test Set, Fuel Electrical Harness Adapters, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Fuses, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the aircraft status reports; 2. Identify the problem as per appropriate aircraft troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task; 5. Perform troubleshooting of:		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out operational and functional tests of aircraft fuel electrical system; 1.2. Carry out replacement, inspection and troubleshooting of aircraft fuel electrical system components. 2.0. Principles	

a. Boost pumps control and indication system b. Ejector system c. Fuel heaters d. Cross feed supply valves, supply and shut-off valves - normal and emergency control e. Fuel level indicator system 6. Perform inspection of: a. Boost pumps control and indication system b. Ejector system c. Fuel heaters d. Cross feed supply valves, supply and shut-off valves - normal and emergency control valves e. Fuel level indicator system 7. Carry out operational and functional check of: a. Boost pumps control and indication system b. Ejector system c. Cross feed supply valves, supply and shut-off valves - normal and emergency d. Fuel level indicator system 8. Replace defective: a. Boost pump control and protection system components b. Ejector system components c. Fuel heaters d. Cross feed supply valves, supply and shut-off valves - normal and emergency e. Fuel level indicator components 9. Perform final inspection and sign appropriate defect rectification sheets; 10. Clean work place, tools and equipment;	The person must be able to explain the principles of: 2.1. Operation of aircraft fuel electrical systems; 2.2. Operation of fuel quantity measurement units; 2.3. Operation of fuel pumps; 2.4. Operation of fuel jettison system. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft fuel measurement and indication systems; 3.9. Different types of fuel grades, their properties and application; 3.10. Use basic tools and test equipment; 3.11. Civil aviation regulation; 3.12. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Problem solving skills; 4.3. Computer skills; 4.4. Ability to work in the confined environment; 4.5. Pressure management; 4.6. Team work; 4.7. Communication skills; 4.8. Integrity.
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11. Store tools and equipment appropriately; 12. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's fuel electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S HYDRAULIC SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	6027
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s hydraulic electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, Hydraulic Power Unit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Locking wires, Tie wraps, Cleaning agent, hydraulic fluid Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves.		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins.		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft hydraulic electrical system components;	

3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. Hydraulic Pump control and indication system b. Pressure switches c. Overheat warning system d. Cross feed supply valves, supply and shut-off valves - normal and emergency control e. Hydraulic pump electrical plug connection f. Hydraulic pump and hydraulic line oil leakage 7. Carry out operational and functional check of: a. Hydraulic Pump control and indication system b. Pressure warning system c. Overheat warning system d. Cross feed supply valves, supply and shut-off valves - normal and emergency control e. Oil detection f. Hydraulic pump electrical plug connection g. Piping clamps 8. Replace below aircraft hydraulic electrical system components as per airworthiness requirements: a. Hydraulic pump control and indication system components b. Pressure switch system components c. Overheat warning system components	1.2. Carry out operational and function test of hydraulic electrical system. 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft hydraulic electrical system; 2.2. Operation of hydraulic quantity measurement units; 2.3. Operation of hydraulic pumps; 2.4. Operation of hydraulic system pressure switches; 2.5. Operation of hydraulic system electrically operated valves. 3.0. Theories The person must be able to explain: 3.1. Aviation mathematics; 3.2. Aviation physics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft hydraulic measurement and indication systems.; 3.9. Different types of hydraulic fluids, their properties and application; 3.10. Use of basic tools and test equipment; 3.11. Civil aviation regulation; 3.12. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Problem solving skills; 4.3. Computer skills; 4.4. Team work; 4.5. Communication skills; 4.6. Integrity.
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d. Cross feed supply valves, supply and shut-off valves - normal and emergency valves e. Oil filter assembly f. Hydraulic system actuator seal ring 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft hydraulic electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S HYDRAULIC SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	6028
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s hydraulic electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, Hydraulic Power Unit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Locking wires, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the aircraft status reports; 2. Identify the problem as per appropriate aircraft troubleshooting manual.; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out troubleshooting, replacement and inspection of aircraft hydraulic electrical system components; 1.2. Carry out operational and function test of hydraulic electrical system.	

5. Perform troubleshooting of: a. Hydraulic Pump control and indication system b. Pressure warning system c. Overheat warning system d. Cross feed supply valves, supply and shut-off valves - normal and emergency control e. Hydraulic pump electrical plug connection f. Hydraulic pump and hydraulic line oil leakage 6. Perform inspection of: a. Hydraulic Pump control and indication system b. Pressure warning system c. Overheat warning system d. Cross feed supply valves, supply and shut-off valves - normal and emergency control e. Oil detection f. Hydraulic pump electrical plug connection g. Piping clamps h. Hydraulic pump and hydraulic line oil leakage 7. Carry out operational and functional check of: a. Hydraulic pump control and indication system components b. Pressure switch system components c. Overheat warning system components d. Cross feed supply valves, supply and shut-off valves - normal and emergency valves e. Oil filter assembly f. Hydraulic system actuator seal ring 8. Replace defective:	2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft hydraulic electrical system; 2.2. Operation of hydraulic quantity measurement units; 2.3. Operation of hydraulic pumps; 2.4. Operation of hydraulic system pressure switches; 2.5. Operation of hydraulic system electrically operated valves. 3.0. Theories The person must be able to explain: 3.1. Aviation mathematics; 3.2. Aviation physics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft hydraulic measurement and indication systems; 3.9. Different types of hydraulic fluids, their properties and application; 3.10. Use of basic tools and test equipment; 3.11. Civil aviation regulation; 3.12. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Computer skills; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
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a. Hydraulic Pump control and isolation system components b. Pressure switches c. Overheat warning system components d. Electrically-operated priority valves e. Fluid reservoir components f. Low level warning system components 9. Perform final inspection and sign appropriate defect rectification sheets; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's hydraulic electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S LANDING GEAR ELECTRICAL SYSTEM	TASK NO.	6029
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s landing gear electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, Go–No–Go Test Gauge, Test Target – Near/Far, Anti–Skid Tester, Anti–Skid Tester Adapter, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Locking wires, Tie wraps, Cleaning agent, hydraulic fluid Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves.		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft landing gear electrical system components;	

3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task ; 5. Observe health and safety when performing the task ; 6. Perform inspection of: a. Actuation motors, selection and control system b. Indication system – proximity sensors micro switches c. Air/ground sensor system d. Anti-skid system – operation, control and override e. Automatic braking system – inputs, control and override f. Landing gear up/down mechanism 7. Carry out operational and functional check of: a. Actuation system b. Indication system c. Air/ground sensor system d. Anti-skid system e. Automatic braking system f. Landing gear up/down mechanism 8. Replace below aircraft landing gear electrical system components as per airworthiness requirements: a. Actuation system components b. Indication system components c. Air/ground sensor system components d. Anti-skid system components	1.2. Carry out operational and function test of landing gear electrical system. 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft landing gear electrical system; 2.2. Operation of landing gear motors and actuators; 2.3. Operation of antiskid system; 2.4. Operation of proximity and air/ground sensors. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft landing gear systems and their application; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Problem solving skills; 4.2. Critical thinking; 4.3. Computer skills; 4.4. Ability to work in the confined environment; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
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e. Automatic braking system components 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft landing gear electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S LANDING GEAR ELECTRICAL SYSTEM	TASK NO.	60210
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s landing gear electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, Go–No–Go Test Gauge, Test Target – Near/Far, Anti–Skid Tester, Anti–Skid Tester Adapter, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Locking wires, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the aircraft status reports;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to:	

2. Identify the problem as per appropriate aircraft troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task; 5. Perform troubleshooting of: a. Actuation system b. Indication system c. Air/ground sensor system d. Anti-skid system e. Automatic braking system f. Landing gear up/down mechanism 6. Perform inspection of: a. Actuation motors, selection and control system b. Indication system – proximity sensors micro switches c. Air/ground sensor system d. Anti-skid system – operation, control and override e. Automatic braking system – inputs, control and override f. Landing gear up/down mechanism 7. Carry out operational and functional check of: a. Actuation system b. Indication system c. Air/ground sensor system d. Anti-skid system e. Automatic braking system f. Replace defective: g. Actuation system components h. Indication system components i. Air/ground sensor system components j. Anti-skid system components	1.1. Carry out operational and functional tests of aircraft landing gear electrical system; 1.2. Carry out replacement, inspection and troubleshooting of aircraft landing gear electrical system components. 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft landing gear electrical system; 2.2. Operation of landing gear motors and actuators; 2.3. Operation of antiskid system; 2.4. Operation of proximity and air/ground sensors. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft landing gear systems and their application; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Ability to work under confined environment; 4.3. Critical thinking; 4.4. Problem solving skills; 4.5. Pressure management; 4.6. Team work;
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k. Automatic braking system components 8. Perform final inspection and sign appropriate defect rectification sheets; 9. Clean work place, tools and equipment; 10. Store tools and equipment appropriately; 11. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 12. Return the aircraft to its normal configuration.	4.7. Communication skills; 4.8. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's landing gear electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE ENGINEERING TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S ENGINE AND PROPELLER CONTROL SYSTEM’S ELECTRICAL SYSTEMS	TASK NO.	60211
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s engine and propeller control electrical systems as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Locking wires, Tie wraps, Cleaning agent, hydraulic fluid Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves.		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to:	

2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves d. Temperature and speed limiting system e. Propeller feathering control system f. Electronic engine control system g. Ignition exciters h. Ignition plugs i. Electrical starters j. Ignition leads 7. Carry out operational and functional check of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves d. Temperature and speed limiting system e. Propeller feathering control system f. Electronic engine control system g. Starting control system h. Ignition control system i. Indication and warning system	1.1. Carry out replacement and inspection of aircraft engine and propeller control electrical systems components; 1.2. Carry out operational and function test of aircraft engine and propeller control electrical systems. 2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft propeller speed detection system; 2.2. Operation of aircraft propeller feathering system. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Use of basic tools and test equipment; 3.9. Civil aviation regulation; 3.10. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Problem solving skills; 4.2. Critical thinking; 4.3. Computer skills; 4.4. Team work; 4.5. Communication skills; 4.6. Integrity.
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8. Replace below aircraft engine and propeller control electrical systems components as per airworthiness requirements: a. Propeller speed indication system components b. Propeller de-icing control system components c. Fuel control valves d. Temperature and speed limiting system components e. Propeller feathering control system components f. Electronic engine control system components g. Ignition exciters h. Ignition plugs i. Electrical starters j. Ignition leads 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft's engine and propeller control electrical systems is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATIO N CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’SENGINE AND PROPELLER CONTROL SYSTEM’S ELECTRICAL SYSTEMS	TASK NO.	60212
PERFORMANC E CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s engine and propeller control electrical systems as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Locking wires, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the aircraft status reports; 2. Identify the problem as per appropriate aircraft troubleshooting manual.; 3. Select right tools, equipment and safety gears for the task;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft engine and propeller control electrical systems components; 1.2. Carry out operational and function test of aircraft engine and propeller control electrical systems.	

4. Observe health and safety when performing the task 5. Perform troubleshooting of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves d. Temperature and speed limiting system e. Propeller feathering control system f. Electronic Engine Control system g. Starting control system h. Ignition control system i. Indication and warning system 6. Perform inspection of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves d. Temperature and speed limiting system e. Propeller feathering control system f. Electronic engine control system g. Ignition exciters h. Ignition plugs i. Electrical starters j. Ignition leads 7. Carry out operational and functional check of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves	2.0. Principles The person must be able to explain the principles of: 2.1. Operation of aircraft propeller speed detection system; 2.2. Operation of aircraft propeller feathering system. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Use of basic tools and test equipment; 3.9. Civil aviation regulation; 3.10. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
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d. Temperature and speed limiting system e. Propeller feathering control system f. Electronic engine control system g. Starting control system h. Ignition control system i. Indication and warning system 8. Replace defective: a. Propeller speed indication system components b. Propeller de-icing control system components c. Fuel control valves d. Temperature and speed limiting system components e. Propeller feathering control system components f. Electronic engine control system components g. Ignition exciters h. Ignition plugs i. Electrical starters j. Ignition leads 9. Perform final inspection and sign appropriate defect rectification sheets; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's engine and propeller control electrical

	systems is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATIO N	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATIO N CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S AIR CONDITIONING SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	60213
PERFORMAN CE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s air conditioning system’s electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Locking wires, Tie wraps, Cleaning agent, hydraulic fluid Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves.		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft air conditioning electrical system;	

3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. Control system b. Indication system c. Protection system 7. Carry out operational and functional check of: a. Control system b. Indication system c. Protection system 8. Replace below aircraft air conditioning electrical system components as per airworthiness requirements: a. Control system components b. Indication system components c. Protection system components 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	1.2. Carry out operational and function test of aircraft air conditioning electrical system. 2.0. Principles The person must be able to explain the principle of operation of aircraft air conditioning system. 3.0. Theories The person must be able to explain: 3.1. Aviation mathematics; 3.2. Aviation physics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft air conditioning systems; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Problem solving skills; 4.2. Critical thinking; 4.3. Computer skills; 4.4. Team work; 4.5. Communication skills; 4.6. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft's air conditioning system's electrical system is performed as per latest procedures approved by Tanzania Civil Aviation Authority and/or

	authority responsible for aircraft type design and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S AIR CONDITIONING SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	60214
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s air conditioning system’s electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Locking wires, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the aircraft status reports;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to:	

2. Identify the problem as per appropriate aircraft troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task; 5. Perform troubleshooting of: a. Control system b. Indication system c. Protection system d. Perform inspection of: e. Control system f. Indication system g. Protection system 6. Carry out operational and functional check of: a. Control system b. Indication system c. Protection system 7. Replace defective: a. Control system components b. Indication system components c. Protection system components 8. Perform final inspection and sign appropriate defect rectification sheets; 9. Clean work place, tools and equipment; 10. Store tools and equipment appropriately; 11. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 12. Return the aircraft to its normal configuration.	1.1. Carry out operational and functional tests of aircraft air conditioning electrical system; 1.2. Carry out replacement, inspection and troubleshooting of aircraft air conditioning electrical system components. 2.0. Principles The person must be able to explain the principle of operation of aircraft air conditioning system. 3.0. Theories The person must be able to explain: 3.1. Aviation mathematics; 3.2. Aviation physics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft air conditioning systems; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Problem solving skills; 4.3. Computer skills; 4.4. Ability to work in the confined environment; 4.5. Pressure management; 4.6. Team work; 4.7. Communication skills; 4.8. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's air conditioning system's electrical system is performed as per latest procedures

	approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S ICE AND RAIN PROTECTION SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	60215
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s ice and rain protection system’s electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Locking wires, Tie wraps, Cleaning agent, hydraulic fluid Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves.		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft ice and rain protection electrical system components;	

3. Implement instructions of all applicable airworthiness directives and service bulletins; 4. Select right tools, equipment and safety gears for the task; 5. Select right tools, equipment and safety gears for the task; 6. Observe health and safety when performing the task; 7. Perform inspection of: a. Warning and indication system b. Wing thermal anti-icing system c. Windscreen heating system d. Engine/propeller and airframe anti-ice protection system e. Warning and indication system f. Overhead indication and protection system g. Air data sensor system h. Windscreen wiper, washer and rain repellent system i. Sensors protection system j. Clear water and sewage anti-icing systems 8. Carry out operational and functional check of: a. Warning and indication system b. Wing thermal anti-icing system c. Windscreen heating system d. Engine/propeller and airframe anti-ice protection system e. Warning and indication system f. Overhead indication and protection system g. Air data sensor system h. Windscreen wiper, washer and rain repellent system i. Sensors protection system j. Clear water and sewage anti-icing systems	1.2. Carry out operational and function test of aircraft ice and rain protection electrical system. 2.0. Principles The person must be able to explain the principles of operation of aircraft ice and rain protection electrical system operation of landing. 3.0. Theories The person must be able to explain: 3.1. Aviation mathematics; 3.2. Aviation physics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft ice and rain protection systems and their application; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Problem solving skills; 4.3. Computer skills; 4.4. Team work; 4.5. Communication skills; 4.6. Integrity.
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9. Replace below aircraft ice and rain electrical system components as per airworthiness requirements: a. Warning and indication system components b. Wing thermal anti-icing system c. Windscreen heating system components d. Engine/propeller and airframe anti-ice protection system components e. Warning and indication system components f. Overhead indication and protection system components g. Air data sensor system h. Windscreen wiper, washer and rain repellent system components i. Sensors protection system components j. Clear water and sewage anti-icing systems 10. Perform final inspection and sign task cards; 11. Clean work place, tools and equipment; 12. Store tools and equipment appropriately; 13. Present task cards to the certifying engineer for certification and aircraft release to service; 14. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft's ice and rain protection system's electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.

CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.
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OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S ICE AND RAIN PROTECTION SYSTEM’S ELECTRICAL SYSTEM	TASK NO.	60216
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s ice and rain protection system’s electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Locking wires, Tie wraps, Cleaning agent, Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFORMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft ice and rain protection electrical system components; 1.2. Carry out operational and function test of aircraft ice and rain protection electrical system.	

4. Select right tools, equipment and safety gears for the task; 5. Select right tools, equipment and safety gears for the task; 6. Observe health and safety when performing the task; 7. Perform inspection of: a. Warning and indication system b. Wing thermal anti-icing system c. Windscreen heating system d. Engine/propeller and airframe anti-ice protection system e. Warning and indication system f. Overhead indication and protection system g. Air data sensor system h. Windscreen wiper, washer and rain repellent system i. Sensors protection system j. Clear water and sewage anti-icing systems 8. Carry out operational and functional check of: a. Warning and indication system b. Wing thermal anti-icing system c. Windscreen heating system d. Engine/propeller and airframe anti-ice protection system e. Warning and indication system f. Overhead indication and protection system g. Air data sensor system h. Windscreen wiper, washer and rain repellent system i. Sensors protection system	2.0. Principles The person must be able to explain the principles of operation of aircraft ice and rain protection electrical system Operation of landing. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Basic types of aircraft ice and rain protection systems and their application; 3.9. Use of basic tools and test equipment; 3.10. Civil aviation regulation; 3.11. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Computer skills; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
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j. Clear water and sewage anti-icing systems 9. Replace below aircraft ice and rain electrical system components as per airworthiness requirements: a. Warning and indication system components b. Wing thermal anti-icing system c. Windscreen heating system components d. Engine/propeller and airframe anti-ice protection system components e. Warning and indication system components f. Overhead indication and protection system components g. Air data sensor system h. Windscreen wiper, washer and rain repellent system components i. Sensors protection system components j. Clear water and sewage anti-icing systems 10. Perform final inspection and sign task cards; 11. Clean work place, tools and equipment; 12. Store tools and equipment appropriately; 13. Present task cards to the certifying engineer for certification and aircraft release to service; 14. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's ice and rain protection system's electrical

	system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATIO N CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S GALLEY/TOILET SERVICES ELECTRICAL SYSTEM	TASK NO.	60217
PERFORMAN CE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s galley/toilet services electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extraction/insertion tool. Materials: Locking wires, Tie wraps, Cleaning agent, hydraulic fluid Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves.		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task cards and maintenance instruction; 2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of galley/toilet services electrical system; 1.2. Carry out operational and function test of aircraft air conditioning electrical system.	

4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task; 6. Perform inspection of: a. Power supply and protection system b. Water heating system c. Galley equipment system 7. Carry out operational and functional check of: a. Power supply and protection system b. Water heating system c. Galley equipment system 8. Replace below aircraft galley/toilet services electrical system components as per airworthiness requirements: a. Power supply and protection system components b. Water heating system components c. Galley equipment system components 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	2.0. Principles The person must be able to explain the principles of operation of aircraft galley/toilet services electrical system. 3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factor; 3.8. Use of basic tools and test equipment; 3.9. Civil aviation regulation; 3.10. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Critical thinking; 4.2. Problem solving skills; 4.3. Computer skills; 4.4. Team work; 4.5. Communication skills; 4.6. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of aircraft's galley/toilet services electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.

CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.
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OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S ELECTRICAL CONTROLLED AND OPERATED SYSTEMS	DUTY NO.	602
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S GALLEY/TOILET SERVICES ELECTRICAL SYSTEM	TASK NO.	60218
PERFORMAN CE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s galley/toilet services electrical system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools Materials: Locking wires, Tie wraps, Cleaning agent, contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, sealants and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the aircraft status reports; 2. Identify the problem as per appropriate aircraft troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task ;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out replacement and inspection of aircraft galley/toilet services electrical system components; 1.2. Carry out operational and function test of galley/toilet services electrical system. 2.0. Principles	

5. Perform troubleshooting of: a. Power supply and protection system b. Water heating system c. Galley equipment system 6. Perform inspection of: a. Power supply and protection system b. Water heating system c. Galley equipment system 7. Carry out operational and functional check of: a. Power supply and protection system b. Water heating system c. Galley equipment system d. Replace if failed: e. Power supply and protection system components f. Water heating system components g. Galley equipment system components 8. Perform final inspection and sign appropriate defect rectification sheets; 9. Clean work place, tools and equipment; 10. Store tools and equipment appropriately; 11. Present appropriate defect rectification sheets to the certifying engineer for certification and aircraft release to service; 12. Return the aircraft to its normal configuration.	The person must be able to explain the principles of: Operation of aircraft galley/toilet services electrical system. 3.0. Theories The person must be able to explain: 3.1. Aviation mathematics; 3.2. Aviation physics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Use of basic tools and test equipment; 3.9. Civil aviation regulation; 3.10. Use of Aircraft Maintenance Manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of aircraft's galley/toilet services electrical system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.

CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health; 4. Safe disposal of materials.
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OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S AUTOPILOT SYSTEM	DUTY NO.	603
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AIRCRAFT’S AUTOPILOT FLIGHT GUIDANCE COMPUTER AND CONTROLLER SYSTEM	TASK NO.	6031
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s autopilot guidance computer and controller system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, computers, Tools kit, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contract extraction/insertion tools. Materials: Contract cleaner, contact enhancer, electrical splices, electrical wires, soldering materials and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task card and maintenance instructions; 2. Review all applicable airworthiness directives and service bulletins.; 3. Implement instructions of all applicable airworthiness directives and service bulletins.;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out inspection and replacement of flight guidance computer systems; 1.2. Carry out inspection and replacements of advisory displays/indictor; 1.3. Carry out inspection and replacements of Flight guidance controllers/Mode selector switches AFCS interface unit/interlocks;	

4. Select right tools, equipment and safety gears for the task ; 5. Observe health and safety when performing the task; 6. Perform inspection of: - Flight guidance computer - DFCS mode control panel/indicator - Automatic flight status annunciator - Yaw damping indicator - Flight guidance controllers/Mode selector switches - Auto Flight Control System (AFCS) interface/ interlock unit - Autopilot engagement and disengagement system components - Autopilot and yaw damper switches - Pitch thumb and wheel controllers 7. Carry-out operational test of: - Flight Guidance/AP computer - Autopilot Interface system - Flight Guidance controller - Advisory displays - Autopilot engagement and disengagement system 8. Replace below autopilot flight guidance and controller system components as per airworthiness requirements - Flight guidance computer - DFCS mode control panel/indicator - Automatic flight status annunciator - Yaw damping indicator	1.4. Carry out inspection and replacements of Autopilot engagement and disengagement system components; 1.5. Carry out inspection and replacements of Autopilot and yaw damper switches; 1.6. Carry out inspection and replacements of Pitch thumb and wheel control. 2.0. Principles The person must be able to explain the principles of operation of: - Flight Guidance Computer; - Flight Guidance Controller or Autopilot controller; - Flight guidance mode switches; - Advisory display panels; - Control surface servos; - Control surface actuator; - Autopilot disengagement annunciator units; - Auto flight control system interface units; - Gyroscopes; - Automatic landing systems; - Automatic throttle system; - Fly by wire; - Automatic pilot demand signals; - Autopilot command signal output; - Automatic pilot sensing elements: - Directional gyro - Turn and bank - Attitude indicator - Air data computer - Radio navigation inputs 3.0. Theories The person must be able to explain: - Aviation physics; - Aviation mathematics; - Electronic fundamentals; - Electrical fundamentals; - Digital techniques;
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e. Flight guidance controllers/Mode selector switches f. AFCS interface/interlock unit g. Autopilot engagement and disengagement control system h. Autopilot and yaw damper switches i. Pitch thumb and wheel controllers 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	3.6. Maintenance practices; 3.7. Human factors; 3.8. Synchros and servo mechanisms operation; 3.9. Auto flight; 3.10. Civil aviation regulation; 3.11. Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of the aircraft's autopilot flight guidance computer and controller system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

CCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S AUTOPILOT SYSTEMS	DUTY NO.	603
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AIRCRAFT’S AUTOPILOT FLIGHT GUIDANCE AND CONTROLLER SYSTEM	TASK NO.	6032
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s autopilot flight guidance computer and controller system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, computers, Tools kit, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contract extraction/insertion tools. Torque wrench Materials: Contract cleaner, contact enhancer, electrical splices, electrical wires, soldering materials and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review aircraft status reports; 2. Identify the fault as per appropriate troubleshooting manual.;; 3. Select right tools, equipment and safety gears for the task;		Detailed knowledge about: 1.0 Methods The person performing this task must be able to explain how to: 1.1. Carry out troubleshooting, inspection and replacement of flight guidance computer systems;	

4. Observe health and safety when performing the task 5. Perform trouble shooting of: - Flight Guidance/AP computer - Autopilot Interface system - Flight Guidance controller - Advisory displays - Autopilot engagement and disengagement system 6. Perform inspection of: - Flight guidance computer - DFCS mode control panel/indicator - Automatic flight status annunciator - Yaw damping indicator - Flight guidance controllers/Mode selector switches - Auto Flight Control System (AFCS) interface/ interlock unit - Autopilot engagement and disengagement system components - Autopilot and yaw damper switches 7. Carry-out operational check of: - Flight Guidance/AP computer - Autopilot Interface system - Flight Guidance controller - Advisory displays - Autopilot engagement and disengagement system 8. Replace defective: - Flight guidance computer - DFCS mode control panel/indicator - Automatic flight status annunciator	1.2. Carry out troubleshooting, inspection and replacement of advisory displays/indicator; 1.3. Carry out troubleshooting, inspection and replacement of Flight guidance controllers/Mode selector switches; 1.4. Carry out troubleshooting, inspection and replacement of AFCS interface unit/interlock unit; 1.5. Carry out troubleshooting, inspection and replacement of Autopilot engagement and disengagement system components; 1.6. Carry out troubleshooting, inspection and replacement of Autopilot and yaw damper switches; 1.7. Carry out troubleshooting, inspection and replacement of Pitch thumb and wheel control; 1.8. Carry out operational and functional checks of aircraft autopilot system. 2.0 Principles The person must be able to explain the principles of operation of: - Flight Guidance Computer; - Flight Guidance Controller or Autopilot controller; - Flight guidance mode switches; - Advisory display panels; - Control surface servos; - Gyroscopes; - Control surface actuator; - Autopilot disengage annunciator units; - Auto flight control system interface units; - Automatic landing systems; - Automatic throttle system; - Fly by wire; - Automatic pilot demand signals; - Autopilot command signal outputs; - Automatic pilot sensing elements: - Directional gyro - Turn and bank
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d. Yaw damping indicator e. Flight guidance controllers/Mode selector switches f. AFCS interface/interlock unit g. Autopilot engagement and disengagement control system h. Autopilot and yaw damper switches i. Pitch thumb and wheel controllers 9. Perform final inspection and sign appropriate defect sheets; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present appropriate defect sheets to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	• Attitude indicator • Air data computer • Radio navigation inputs 3.0 Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Synchros and servo mechanisms operation ; 3.9. Auto flight; 3.10. Civil aviation regulation; 3.11. Use of Aircraft maintenance manuals (AMM). 4.0 Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of the aircraft's autopilot flight guidance computer and controller system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S AUTOPILOT SYSTEMS	DUTY NO.	603
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AUTOPILOT COMMAND SYSTEM	TASK NO.	6033
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s autopilot command system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools, torque wrenches Materials: Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, heat shrink sleeves and air filters,		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task card and maintenance instructions; 2. Review all applicable airworthiness directives and service bulletins; 3. Implement instructions of all applicable airworthiness directives and service bulletins;		Detailed knowledge about: 1.0 Methods The person performing this task must be able to explain how to: 1.1.Carry out inspection and replacement of flight guidance computer systems; 1.2.Carry out inspection and replacement of advisory displays/indictor; 1.3.Carry out inspection and replacement of Flight guidance controllers/Mode selector switches;	

4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task 6. Perform inspection of: - Aileron servo motors/ roll actuators - Roll actuator capstan - Elevator servo motors/pitch actuators - Pitch actuator capstan - Elevator trim - Autopilot aileron actuator - Autopilot elevator actuator - Flap transmission - Stabilizer transmission - Pitch steering transmission - Mach trim transmission - AoA blade detection mechanism 7. Carry out operational and function check of: - Pitch and roll actuators - Pitch and roll capstans - Automatic pitch trim - Aileron servo - Elevator servo - Rudder / Yaw damper actuator 8. Replace the following autopilot command system components as per airworthiness requirements: - Aileron servo motors/ roll actuators - Roll actuator capstan - Elevator servo motors/pitch actuators - Pitch actuator capstan	1.4. Carry out inspection and replacement of AFCS interface/ interlock unit; 1.5. Carry out inspection and replacement of Autopilot engagement and disengagement system components; 1.6. Carry out inspection and replacement of Autopilot and yaw damper switches; 1.7. Carry out inspection and replacement of Pitch thumb and wheel controllers. 2.0 Principles The person must be able to explain the principles of operation of: - Flight Guidance Computer; - Flight Guidance Controller/ Autopilot controller; - Flight guidance mode switches; - Advisory display panels; - Control surface servos; - Control surface actuator; - Autopilot disengagement annunciator units; - Auto flight control system interface units; - Gyroscopes; - Automatic landing systems; - Automatic throttle system; - Fly by wire; - Automatic pilot demand signals; - Autopilot command signal output; - Automatic pilot sensing elements: - Directional gyro - Turn and bank - Attitude indicator - Air data computer - Radio navigation inputs 3.0 Theories The person must be able to explain: - Aviation physics; - Aviation mathematics; - Electronic fundamentals; - Electrical fundamentals;
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e. Elevator trim system components f. Rudder/ Yaw damper actuator g. Roll manipulator force sensor h. Elevator neutral offset sensor i. Elevator position sensor j. Mach trim actuator cylinder k. Aileron autopilot actuator cylinder l. Autopilot elevator actuator cylinder 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Synchros and servo mechanisms operation; 3.9. Civil aviation regulation; 3.10. Autopilot control system; 3.11. Use of Aircraft maintenance manuals (AMM). 4.0 Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving; 4.4. Pressure management; 4.5. Team work; 4.6. Communication; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of the aircraft's autopilot command system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S AUTOPILOT COMMAND SYSTEMS	DUTY NO.	603
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AUTOPILOT COMMAND SYSTEM	TASK NO.	6034
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s autopilot command system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, Computers, Tools kit, multimeter, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contact extractions/insertion tools, Torque wrench. Materials: Contact cleaner, contact enhancer, electrical splices, electrical wires, soldering materials, heat shrink sleeves and air filters		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
6. The person performing this task must be able to do the following: 7. Review aircraft status reports; 8. Identify the fault as per appropriate troubleshooting manual; 9. Select right tools, equipment and safety gears for the task; 10. Observe health and safety when performing the task; 11. Perform trouble shooting of:		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out troubleshooting, inspection and replacement of flight guidance computer system components; 1.2. Carry out troubleshooting, inspection and replacement of advisory displays/indictor;	

12. Aileron servo motors/ roll actuators	1.3. Carry out troubleshooting, inspection and replacement of Flight guidance controllers/Mode selector switches;
13. Roll actuator capstan	1.4. Carry out troubleshooting, inspection and replacement of AFCS interface/interlock unit;
14. Elevator servo motors/pitch actuators	1.5. Carry out troubleshooting, inspection and replacement of Autopilot engage and disengage annunciators;
15. Pitch actuator capstan	1.6. Carry out troubleshooting, inspection and replacement of Autopilot and yaw damper switches;
16. Elevator trim	1.7. Carry out troubleshooting, inspection and replacement of Pitch thumb and wheel controllers.
17. Speed trim and Mach trim	
18. Rudder/ Yaw damper actuator cylinder	
19. Aileron autopilot actuator cylinder	
20. Autopilot elevator actuator cylinder	
21. Flap transmission	
22. Stabilizer transmission	
23. Pitch steering transmission	
24. Mach trim mechanism	
25. AoA blade detection mechanism	
26. Perform inspection of:	
27. Aileron servo motors/ roll actuators	
28. Roll actuator capstan	
29. Elevator servo motors/pitch actuators	
30. Pitch actuator capstan	
31. Elevator trim system components	
32. Rudder/ Yaw damper actuator	
33. Carry out operational and functional check of:	
34. Aileron servo motors/ roll actuators	
35. Roll actuator capstan	
36. Elevator servo motors/pitch actuators	
37. Pitch actuator capstan	
38. Elevator trim system	
39. Speed trim and Mach trim	
40. Rudder/ Yaw damper actuator cylinder	
41. Replace defective:	
	2.0. Principles
	The person must be able to explain the principles of operation of: Flight Guidance Computer
	2.2. Flight Guidance Controller/ Autopilot controller;
	2.3. Flight guidance mode switches;
	2.4. Advisory display panels;
	2.5. Control surface servos;
	2.6. Control surface actuator;
	2.7. Autopilot disengagement annunciator units;
	2.8. Gyroscopes;
	2.9. Auto flight control system interface units;
	2.10. Automatic landing systems;
	2.11. Automatic throttle system;
	2.12. Fly by wire;
	2.13. Automatic pilot demand signals;
	2.14. Autopilot command signal output s;
	2.15. Automatic pilot sensing elements:
	• Directional gyro • Turn and bank • Attitude indicator • Air data computer • Radio navigation inputs

42. Aileron servo motors/ roll actuator cylinders 43. Roll actuator capstan 44. Elevator servo motors/pitch actuators 45. Pitch actuator capstan 46. Elevator trim system components 47. Rudder/ Yaw damper actuator cylinder 48. Roll manipulator force sensor 49. Elevator neutral offset sensor 50. Elevator position sensor 51. Mach trim actuator cylinder 52. Aileron autopilot actuator cylinder 53. Autopilot elevator actuator cylinder 54. Perform final inspection and sign appropriate defect sheets; 55. Clean work place, tools and equipment; 56. Store tools and equipment appropriately; 57. Present appropriate defect sheets to the certifying engineer for certification and aircraft release to service; 58. Return the aircraft to its normal configuration.	3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Auto flight; 3.9. Synchros and servo mechanisms operation; 3.10. Civil aviation regulation; 3.11. Use of Aircraft maintenance manuals (AMM). 4.0 Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving; 4.4. Pressure management; 4.5. Team work; 4.6. Communication; 4.7. Integrity.
DESCRIPTION OF THE END PRODUCTS / SERVICE	Unscheduled maintenance of the aircraft's autopilot command system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT AUTOPILOT SYSTEM	DUTY NO.	603
TASK TITLE	PERFORM SCHEDULED MAINTENANCE OF AUTO THROTTLE SYSTEM	TASK NO.	6035
PERFORMANCE CRITERIA	The person performing this task must be able to carry out scheduled maintenance of aircraft’s Auto throttle system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design.		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, computers, Tools kit, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contract extraction/insertion tools. Materials: Contract cleaner, contact enhancer, electrical splices, electrical wires, soldering materials and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review the task card and maintenance instructions; 2. Review all applicable airworthiness directives and service bulletins.; 3. Implement instructions of all applicable airworthiness directives and service bulletins.; 4. Select right tools, equipment and safety gears for the task; 5. Observe health and safety when performing the task;		Detailed knowledge about: 1.0. Methods The person performing this task must be able to explain how to: 1.1. Carry out inspection and replacement of Auto throttle system components; 1.2. Carry out operational and functional checks of Auto throttle system. 2.0. Principles The person must be able to explain the principles of operation of: 2.1. Auto throttle computer; 2.2. Engine electronic control; 2.3. Auto throttle control servos.	

6. Perform inspection of: a. Auto throttle computer b. Auto throttle System Control panel c. Auto Throttle Indication system components d. Engine Electronic Control Unit e. Auto throttles engagement and disengagement system components f. Automatic throttle servo motor 7. Carry-out operational and functional test of: a. Auto throttle computer b. Auto throttle System Control panel c. Auto Throttle Indication system d. Engine Electronic Control Unit e. Auto throttles engagement and disengagement system 8. Replace the following Auto throttle system components as per airworthiness requirement: a. Auto throttle computer b. Auto throttle System Control panel c. Auto Throttle Indication system components d. Engine Electronic Control Unit e. Auto throttles engagement and disengagement system components f. Automatic throttle servo motor 9. Perform final inspection and sign task cards; 10. Clean work place, tools and equipment;	3.0. Theories The person must be able to explain: 3. 1. Aviation physics; 3. 2. Aviation mathematics; 3. 3. Electronic fundamentals; 3. 4. Electrical fundamentals; 3. 5. Digital techniques; 3. 6. Maintenance practices; 3. 7. Human factors; 3. 8. Synchros and servo mechanisms operation ; 3. 9. Automatic throttle system; 3. 10. Civil aviation regulation; 3. 11. Use of Aircraft maintenance manuals (AMM). 4.0. Essential skills 4.1. Computer skills; 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
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11. Store tools and equipment appropriately; 12. Present task cards to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE	Scheduled maintenance of the aircrafts auto throttle system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

OCCUPATION	AVIONICS MAINTENANCE TECHNICIAN	OCCUPATION CODE	
DUTY TITLE	PERFORM MAINTENANCE OF AIRCRAFT’S AUTOPILOT SYSTEM	DUTY NO.	603
TASK TITLE	PERFORM UNSCHEDULED MAINTENANCE OF AUTO THROTTLE SYSTEM	TASK NO.	6036
PERFORMANCE CRITERIA	The person performing this task must be able to carry out unscheduled maintenance of aircraft’s auto throttle system as per latest procedures approved by Tanzania Civil Aviation Authority and/or authority responsible for aircraft type design		
RANGE STATEMENT	The task will be performed on aircraft at Approved Maintenance Organization under the supervision of a certifying aircraft maintenance engineer. The following equipment, tools and materials will be needed in performing the task: Equipment and Tools: Personal Protective Equipment, computers, Tools kit, heat gun, electrostatic wrist straps, soldering gun, crimping tools and contract extraction/insertion tools. Materials: Contract cleaner, contact enhancer, electrical splices, electrical wires, soldering materials and heat shrink sleeves		
EVIDENCE REQUIREMENTS			
PRACTICAL PERFROMANCE		UNDERPINNING KNOWLEDGE	
The person performing this task must be able to do the following: 1. Review aircraft status reports; 2. Identify the fault as per appropriate troubleshooting manual; 3. Select right tools, equipment and safety gears for the task; 4. Observe health and safety when performing the task; 5. Perform trouble shooting of:		Detailed knowledge about: 1.0 Methods The person performing this task must be able to explain how to: 1.1. Carry out inspection and replacement of Auto throttle system components; 1.2. Carry out operational and functional checks of Auto throttle system. 2.0. Principles	

a. Auto throttle computer b. Auto throttle System Control panel c. Auto Throttle Indication system d. Engine Electronic Control Unit e. Auto throttles engagement and disengagement system	The person must be able to explain the principles of operation of: 2.1. Auto throttle computer; 2.2. Engine electronic control; 2.3. Auto throttle control servos.
6. Perform inspection of: a. Auto throttle computer b. Auto throttle System Control panel c. Auto Throttle Indication system components d. Engine Electronic Control Unit e. Auto throttles engagement and disengagement system components f. Automatic throttle servo motor	3.0. Theories The person must be able to explain: 3.1. Aviation physics; 3.2. Aviation mathematics; 3.3. Electronic fundamentals; 3.4. Electrical fundamentals; 3.5. Digital techniques; 3.6. Maintenance practices; 3.7. Human factors; 3.8. Synchros and servo mechanisms operation; 3.9. Automatic throttle system; 3.10. Civil aviation regulation; 3.11. Use of Aircraft maintenance manuals (AMM).
7. Carry-out operational and functional test of: a. Auto throttle computer b. Auto throttle System Control panel c. Auto Throttle Indication system d. Engine Electronic Control Unit e. Auto throttles engagement and disengagement system	4.0. Essential skills Computer skills 4.2. Critical thinking; 4.3. Problem solving skills; 4.4. Pressure management; 4.5. Team work; 4.6. Communication skills; 4.7. Integrity.
8. Replace defective: a. Auto throttle computer b. Auto throttle System Control panel c. Auto Throttle Indication system components d. Engine Electronic Control Unit	

e. Auto throttles engagement and disengagement system components f. Automatic throttle servo motor 9. Perform final inspection and sign appropriate defect sheets; 10. Clean work place, tools and equipment; 11. Store tools and equipment appropriately; 12. Present appropriate defect sheets to the certifying engineer for certification and aircraft release to service; 13. Return the aircraft to its normal configuration.	
DESCRIPTION OF THE END PRODUCTS / SERVICE s	Unscheduled maintenance of the aircraft's auto throttle system is performed as per latest procedures approved by a competent authority and aircraft is released back to service safely.
CIRCUMSTANTIAL KNOWLEDGE	Detailed knowledge about: 1. Safe handling of equipment and tools; 2. Extent of responsibility; 3. Occupational safety and health.

**TABLE NO. 1: DACUM CHART FOR AVIONICS MAINTENANCE
ENGINEERING TECHNICIANS - LEVEL 6**

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
1.0 Perform maintenance of Aircraft's instrument system	1.1 Perform scheduled maintenance of aircraft's air data system	1.1.1 Review the maintenance planning document Perform inspection of: Total Air Temperature (TAT) probes Pitot-static probes Altimeter Vertical Speed Indicator (VSI) Machmeter indicator Airspeed Indicator (ASI) Air Data Computer (ADC) Pipelines and flexible hoses Angle of Attack (AoA) vanes OR probes Drain straps and associated equipment Altitude and airspeed switches Flight Data Recorder (FDR) Replace air data instrument components as per airworthiness requirements Total Air Temperature (TAT) probes Pitot-static probes Altimeter Vertical Speed Indicator (VSI) Machmeter indicator Airspeed Indicator (ASI) Air Data Computer (ADC)	<u>Generic skills and knowledge</u> Using communication skills to work with others, reporting to superiors Use of Aircraft Maintenance Manual Use of tools manual Theoretical knowledge of maintenance practices Theoretical knowledge of human performance/factors Theoretical knowledge of electronic fundamentals Theoretical knowledge of electrical fundamentals Theoretical knowledge of digital techniques <u>Tools and Equipment</u> Personal Protective Equipment: safety shoes, dust coat and gloves

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		Pipelines and flexible hoses Angle of Attack (AoA) vanes OR probes Drain straps and associated equipment Altitude and airspeed switches Flight Data Recorder (FDR) Carry out functional check of: Total Air Temperature (TAT) probes Pitot-static probes Altimeter Vertical Speed Indicator (VSI) Machmeter indicator Airspeed Indicator (ASI) Air Data Computer (ADC) Pipelines and flexible hoses Angle of Attack (AoA) vanes OR probes Drain straps and associated equipment Altitude and airspeed switches Flight Data Recorder (FDR) Carry out pitot static leak check Record maintenance entries as applicable	Pitot/static pressure test adapter kit Blanking plugs Target proximity sensor de-actuator test Stop watch External power sources Computers Tools kit Torque wrench Sealant Maintenance computer to Engine Monitoring Unit interface cable Igniter cable Digital Turbine Temperature Tester Circuit breaker tag Multimeter Gyroscopic tester tilt table Master compass Non-magnetic screw driver <u>Materials</u> Locking wires Tie wraps Cleaning agent <u>Worker behaviours</u> Team spirit Trustworthy Time management Commitment
	1.2 Perform unscheduled maintenance of aircraft's Air Data System	1.2.1 Review aircraft status reports 1.2.2 Perform troubleshooting of:	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		a. Total Air Temperature (TAT) probes b. Pitot-static probes c. Altimeter d. Vertical Speed Indicator (VSI) e. Machmeter indicator f. Airspeed Indicator (ASI) g. Air Data Computer (ADC) h. Pipelines and flexible hoses i. Angle of Attack (AoA) vanes OR probes j. Drain straps and associated equipment k. Altitude and airspeed switches l. Flight Data Recorder (FDR)	
		1.2.3 Perform inspection of: a. Total Air Temperature (TAT) probes b. Pitot-static probes c. Altimeter d. Vertical Speed Indicator (VSI) e. Machmeter indicator f. Airspeed Indicator (ASI)	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		g. Air Data Computer (ADC) h. Pipelines and flexible hoses i. Angle of Attack (AoA) vanes OR probes j. Drain straps and associated equipment k. Altitude and airspeed switches l. Flight Data Recorder (FDR) 1.2.4 Carry out operational and functional check of: a. Total Air Temperature (TAT) probes b. Pitot-static probes c. Altimeter d. Vertical Speed Indicator (VSI) e. Machmeter indicator f. Airspeed Indicator (ASI) g. Air Data Computer (ADC) h. Pipelines and flexible hoses i. Angle of Attack (AoA) vanes OR probes j. Drain straps and associated equipment	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		k. Altitude and airspeed switches l. Flight Data Recorder (FDR) 1.2.5 Replace defective: a. Total Air Temperature (TAT) probes b. Pitot-static probes c. Altimeter d. Vertical Speed Indicator (VSI) e. Machmeter indicator f. Airspeed Indicator (ASI) g. Air Data Computer (ADC) h. Pipelines and flexible hoses i. Angle of Attack (AoA) vanes OR probes j. Drain straps and associated equipment k. Altitude and airspeed switches l. Flight Data Recorder (FDR) m. Air data pipelines	
	1.3 Perform scheduled maintenance of aircraft's electronic display systems	1.3.1 Review the maintenance planning document 1.3.2 Perform inspection of: a. Electronic Attitude	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		- Direction Indicator (EADI) b. Electronic Horizontal Situation Indicator (EHSI) c. Primary Flight Displays (PFD) d. Symbol generators e. Engine Indicating and Crew Alerting System (EICAS) OR Electronic Centralized Aircraft Monitoring System (ECAM) f. Multifunction Control and Display Unit (MCDU) 1.3.3 Replace electronic display system components as per airworthiness requirements: a. Electronic Attitude Direction Indicator (EADI) b. Electronic Horizontal Situation Indicator (EHSI) c. Primary Flight Displays (PFD) d. Symbol generators	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		e. Engine Indicating and Crew Alerting System (EICAS) OR Electronic Centralized Aircraft Monitoring System (ECAM) f. Multifunction Control and Display Unit (MCDU) 1.3.4 Carry-out operational and functional check of: a. Electronic Attitude Direction Indicator (EADI) b. Electronic Horizontal Situation Indicator (EHSI) c. Primary Flight Displays (PFD) d. Symbol generators e. Engine Indicating and Crew Alerting System (EICAS) OR Electronic Centralized Aircraft Monitoring System (ECAM) f. Multifunction Control and	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		Display Unit (MCDU 1.3.5 Record maintenance entries as applicable	
	1.4 Perform unscheduled maintenance of aircraft's electronic display systems	1.4.1 Review aircraft status reports 1.4.2 Perform troubleshooting of: a. Electronic Attitude Direction Indicator (EADI) b. Electronic Horizontal Situation Indicator (EHSI) c. Primary Flight Displays (PFD) d. Symbol generators e. Engine Indicating and Crew Alerting System (EICAS) OR Electronic Centralized Aircraft Monitoring System (ECAM) f. Multifunction Control and Display Unit (MCDU) 1.4.3 Perform inspection of: a. Electronic Attitude	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		- Direction Indicator (EADI) b. Electronic Horizontal Situation Indicator (EHSI) c. Primary Flight Displays (PFD) d. Symbol generators e. Engine Indicating and Crew Alerting System (EICAS) OR Electronic Centralized Aircraft Monitoring System (ECAM) f. Multifunction Control and Display Unit (MCDU)	
		1.4.4 Replace defective: a. Electronic Attitude Direction Indicator (EADI) b. Electronic Horizontal Situation Indicator (EHSI) c. Primary Flight Displays (PFD) d. Symbol generators e. Engine Indicating and Crew Alerting System (EICAS) OR	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		Electronic Centralized Aircraft Monitoring System components (ECAM) f. Multifunction Control and Display Unit (MCDU) 1.4.5 Carry out operational and functional check of: a. Electronic Attitude Direction Indicator (EADI) b. Electronic Horizontal Situation Indicator (EHSI) c. Primary Flight Displays (PFD) d. Symbol generators e. Engine Indicating and Crew Alerting System (EICAS) OR Electronic Centralized Aircraft Monitoring System (ECAM) f. Multifunction Control and Display Unit (MCDU)	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
	1.5 Perform scheduled maintenance of aircraft's engine instrument system	1.5.1 Review the maintenance planning document 1.5.2 Perform inspection of: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) indicator j. Engine Vibration indicator k. Engine pipelines and transmission electrical wires 1.5.3 Replace engine instrument system components as per airworthiness requirements: a. Tachometer b. Fuel flow indicator	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) indicator j. Engine Vibration indicator k. Engine pipelines and transmission electrical wires 1.5.4 Carry-out operational check of: a. Engine rotational speed indicating system b. Fuel indicating system c. Oil pressure gauges d. Oil quantity indicating system e. Engine thrust indicating system f. Engine Temperature indicating system g. Engine vibration indicating system	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		1.5.5 Record maintenance entries as applicable	
	1.6 Perform unscheduled maintenance of aircraft's engine instrument system	1.6.1 Review the aircraft status reports 1.6.2 Perform troubleshooting of: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) indicator j. Engine Vibration indicator k. Engine pipelines and transmission electrical wires 1.6.3 Perform inspection of: a. Tachometer	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) indicator j. Engine Vibration indicator k. Engine pipelines and transmission electrical wires 1.6.4 Replace defective: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) indicator j. Engine vibration indicator k. Engine pipelines and transmission electrical wires 1.6.5 Carry out functional check of: a. Tachometer b. Fuel flow indicator c. Fuel quantity indicator d. Fuel flow transmitter e. Oil pressure gauges f. Oil quantity indicator g. Engine Pressure Ratio (EPR) indicator h. Engine Gas Temperature (EGT) indicator i. Inter Turbine Temperature (ITT) indicator j. Engine Vibration indicator k. Engine pipelines and transmission electrical wire	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
	1.7 Perform scheduled maintenance of aircraft's gyroscopic instrument system	1.7.1 Review the maintenance planning document 1.7.2 Perform inspection of: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator / Radio Magnetic Indicator 1.7.3 Replace gyroscopic instrument system components as per airworthiness requirements: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator / Radio Magnetic Indicator 1.7.4 Carry-out operational and	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		functional check of: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicating system d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator /Radio Magnetic Indicating system 1.7.5 Record maintenance entries as applicable	
	1.8 Perform unscheduled maintenance of aircraft's gyroscopic instrument system	1.8.1 Review aircraft status reports 1.8.2 Perform troubleshooting of: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator/Radio Magnetic Indicator 1.8.3 Replace defective:	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator/Radio Magnetic Indicator	
		1.8.4 Perform inspection of: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation Indicator/Radio Magnetic Indicator	
		1.8.5 Carry out functional check of: a. Attitude sensing unit b. Directional sensing unit c. Attitude indicator d. Turn and bank coordinator e. Accelerometer f. Horizontal Situation	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		Indicator/Radio Magnetic Indicator	
	1.9 Performanc e scheduled maintenanc e of aircraft's magnetic compass system	1.9.1 Review the maintenance planning document 1.9.2 Perform inspection of: a. Flux valve b. Directional gyro c. Radio Magnetic Indicator d. Direct reading compass 1.9.3 Replace aircraft magnetic compass system components as per airworthiness requirements: a. Flux valve b. Directional gyro c. Radio Magnetic Indicator d. Direct reading compass 1.9.4 Carry-out operational check of: a. Direct reading compass system b. Remote compass system 1.9.5 Record maintenance entries as applicable	
	1.10 Perform unschedule d	1.10.1 Review aircraft status reports	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
	maintenanc e of aircraft's magnetic compass system	1.10.2 Perform troubleshooting of: - Flux valve - Directional gyro - Radio Magnetic Indicator - Direct reading compass 1.10.3 Perform inspection of: - Flux valve - Directional gyro - Radio Magnetic Indicator - Direct reading compass 1.10.4 Replace defective: - Flux valve - Directional gyro - Radio Magnetic Indicator - Direct reading compass 1.10.5 Carry out functional check of: - Flux valve - Directional gyro - Radio Magnetic Indicator - Direct reading compass	
1.0 Perform maintenanc ce of Aircraft's electrical controlled and	2.1 Perform scheduled maintenance of aircraft's fire protection system's	2.1.1 Review the maintenance planning document 2.1.2. Perform the inspection of: Smoke detectors	Generic skills and knowledge Using communication skills to work with others,

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
operated systems	electrical system	b. Overheat sensors c. Fire warning unit d. Overheat sensors e. Fire extinguishing loops f. Fire extinguishing bottles g. Bottle discharge switches h. Discharge discs 2.1.3. Replace aircraft fire protection electrical system components as per airworthiness requirements: a. Smoke detectors b. Overheat sensors c. Fire warning unit d. Overheat sensors e. Fire extinguishing bottles f. Bottle discharge switches g. Discharge discs 2.1.4. Carry out operational and functional check of: a. Smoke detectors b. Fire detection system c. Extinguishing system d. Fire and overheat warning system 2.1.5. Record maintenance	reporting to superiors • Use of electrical wiring Manual • Use of Aircraft Maintenance Manual • Use of tools manual • Theoretical knowledge of maintenance practices • Theoretical knowledge of human performance/factors • Theoretical knowledge of electronic fundamentals • Theoretical knowledge of electrical fundamentals • Theoretical knowledge of digital techniques Tools and Equipment • Personal Protective Equipment: safety shoes, dust coat and gloves • Tools kit

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		entries as applicable	• External power sources
	2.2. Perform unscheduled maintenance of aircraft's fire protection system's electrical system	2. 2. 1. Review aircraft status reports 2. 2. 2. Perform troubleshooting of: a. Smoke detectors b. Overheat sensors c. Fire warning unit d. Overheat sensors e. Fire extinguishing loops f. Fire extinguishing bottles g. Bottle discharge switches h. Discharge discs 2. 2. 3. Perform the inspection of: a. Smoke detectors b. Overheat sensors c. Fire warning unit d. Overheat sensors e. Fire extinguishing loops f. Fire extinguishing bottles g. Bottle discharge switches h. Discharge discs 2. 2. 4. Replace defective: a. Smoke detectors b. Overheat sensors c. Fire warning unit d. Overheat sensors	• Fire squib circuit tester • Fire detection test unit • Multimeter • Electrostatic wrist strap • Heat gun • Soldering gun • Crimping tools • Contact extraction/insertion tools • Insulation Resistance Tester • Fuel Quantity Test Set • Electrical Harness Adapters • Hydraulic Power Unit • Go-No-Go Test Gage • Test Target – Near/Far • Anti-Skid Tester • Anti-Skid Tester Adapter • Vacuum pump Materials • Locking wires • Tie wraps • Cleaning agent • Contact enhancer

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		e. Fire extinguishing bottles f. Bottle discharge switches g. Discharge discs 2.2.5 Carry out operational and functional check of: a. Smoke detectors b. Fire detection system c. Extinguishing system d. Fire and overheat warning system	• Electrical splices • Electrical wires • Soldering materials • Sealants • Heat shrink sleeves Worker behaviours • Team spirit • Trustworthy • Time management • Commitment
	2.3. Perform scheduled maintenance of aircraft's flight control electrical system	2.3.1 Review the maintenance planning document 2.9.3. Perform inspection of: a. Electrical motors b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Power control units g. Flap motors and protection and control h. Trim motors 2.9.4. Replace aircraft flight	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		control electrical system components as per airworthiness requirements: a. Electrical motors b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Power control units g. Flap motors and protection and control h. Trim motors 2. 9. 5. Carry-out operational and functional check of: a. Flight control power control units b. Flap motors control system c. Flap protection system d. Trim motor control system 2. 9. 6. Record maintenance	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		nce entries as applicabl e	
	2.4. Perform unscheduled maintenance of aircraft's flight control electrical system	2.4.1 Review aircraft status reports 2.4.2 Perform troubleshooting of: a. Electrical motors b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Power control units g. Flap motors and protection and control h. Trim motors 2.4.3 Perform inspection of: a. Electrical motors b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Power control units g. Flap motors and protection and control h. Trim motors 2.4.4 Replace defective: a. Electrical motors	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		b. Actuators – clutches and brakes c. Limit switches d. Micro switches e. Proximity detectors f. Power control units g. Flap motors and protection and control h. Trim motors 2.4.5 Carry-out operational and functional check of: a. Flight control power control units b. Flap motors control system c. Flap protection system d. Trim motor control system	
	2.5. Perform scheduled maintenance of aircraft's fuel system's electrical system	2.5.1 Review the maintenance planning document 1.1.1. 2.5.2 Perform inspection of: a. Boost pumps control and indication system b. Jettison system c. Fuel heaters d. Cross feed valves, supply and shut-off valves-normal and emergency control	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		2.5.3 Replace aircraft fuel electrical system components as per airworthiness requirements: a. Boost pumps control and indication system b. Jettison system c. Fuel heaters d. Cross feed valves, supply and shut-off valves-normal and emergency control 2.5.4 Carry-out operational check of: a. Boost pumps control and indication system b. Jettison system c. Cross feed, supply and shut-off valves-normal and emergency 2.5.5 Record maintenance entries as applicable	
	2.6. Perform unscheduled maintenance of aircraft's fuel system's electrical system	2.6.1 Review aircraft status reports 2.6.2 Perform troubleshooting of: a. Boost pumps control and indication system b. Jettison system c. Fuel heaters	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		d. Cross feed valves, supply and emergency control 2.6.3 Perform inspection of: a. Boost pumps control and indication system b. Jettison system c. Fuel heaters d. Cross feed valves, supply and emergency control 2.6.4 Replace defective: a. Boost pumps control and indication system components b. Jettison system components c. Fuel heaters d. Cross feed valves, supply and shut-off valves-normal and emergency control 2.6.5 Carry-out operational check of: a. Boost pumps control and indication system b. Jettison system c. Cross feed, supply and shut-off valves-	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		normal and emergency	
	2.7. Perform scheduled maintenance of aircraft's hydraulic system's electrical system	2.7.1 Review the maintenance planning document 2.7.2 Perform inspection of: a. Hydraulic pump control and isolation system b. Pressure switches c. Overheat warning system d. Electrically-operated priority valves e. Fluid reservoir components f. Low level warning system 2.7.3 Replace aircraft fuel electrical system components as per airworthiness requirements: a. Hydraulic pump control and isolation system components b. Pressure switches c. Overheat warning system components d. Electrically operated priority valves e. Fluid reservoir valves	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		f. Low level warning system components 2.7.4 Carry-out operational and functional check of: a. Hydraulic pump control and isolation system components b. Pressure switches c. Overheat warning system components d. Electrically operated priority valves e. Fluid reservoir valves f. Low level warning system components 2.7.5 Record maintenance entries as applicable	
	2.8. Perform unscheduled maintenance of aircraft's hydraulic system's electrical system	2.8.1 Review aircraft status reports 2.8.2 Perform troubleshooting of: a. Hydraulic pump control and isolation system components b. Pressure switches c. Overheat warning system components d. Electrically operated priority valves	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		e. Fluid reservoir valves f. Low level warning system components 2.8.3 Replace defective: a. Hydraulic pump control and isolation system components b. Pressure switches c. Overheat warning system components d. Electrically operated priority valves e. Fluid reservoir valves f. Low level warning system components 2.8.4 Perform inspection of: a. Hydraulic pump control and isolation system b. Pressure switches c. Overheat warning system d. Electrically-operated priority valves e. Fluid reservoir components f. Low level warning system 2.8.5 Carry-out operational and functional check of:	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		a. Hydraulic pump control and isolation system components b. Pressure switches c. Overheat warning system components d. Electrically operated priority valves e. Fluid reservoir valves f. Low level warning system components	
	2.9. Perform scheduled maintenance of aircraft's landing gear electrical system	2.9.1 Review the maintenance planning document 2.9.2. Perform inspection of: a. Actuation motors, selection and control system b. Indication system – proximity sensors micro switches c. Air/ground sensor system d. Anti-skid system – operation, control and override e. Automatic braking system – inputs, control and override	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		2.9.3 Replace aircraft landing gear electrical system components: a. Actuation motors, selection and control system b. Indication system – proximity sensors micro switches c. Air/ground sensor system d. Anti-skid system – operation, control and override e. Automatic braking system – inputs, control and override 2.9.4 Carry-out operational check of: a. Actuation system b. Indication system c. Air/ground sensor system d. Anti-skid system e. Automatic braking system 2.9.5b Record maintenance entries as applicable	
	2.10. Perform unscheduled maintenance of aircraft's landing gear	2.10.1 Review aircraft status reports 2.10.2 Perform troubleshooting of: a. Actuation motors, selection and control system	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
	electrical system	b. Indication system – proximity sensors micro switches c. Air/ground sensor system d. Anti-skid system – operation, control and override e. Automatic braking system – inputs, control and override 2.10.3 Replace defective: a. Actuation motors, selection and control system components b. Indication system components – proximity sensors micro switches c. Air/ground sensor system components d. Anti-skid system components – operation, control and override e. Automatic braking system components – inputs, control and override 2.10.4 Perform inspection of: a. Actuation motors, selection	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		and control system b. Indication system – proximity sensors micro switches c. Air/ground sensor system d. Anti-skid system – operation, control and override e. Automatic braking system – inputs, control and override 2.10.5 Carry-out operational check of: a. Actuation system b. Indication system c. Air/ground sensor system d. Anti-skid system e. Automatic braking system	
	2.11. Perform scheduled maintenance of aircraft's engine and propeller control system's electrical system	2.11.1 Review the maintenance planning document 2.11.2 Perform inspection of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves d. Temperature and speed limiting system	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		e. Propeller feathering control system f. Electronic engine control system g. Ignition exciters h. Ignition plugs i. Electrical starters j. Ignition leads 2.11.3 Replace engine and propeller control electrical system components as per airworthiness requirements: a. Propeller speed indication system components b. Propeller de-icing control system components c. Fuel control valves d. Temperature and speed limiting system components e. Propeller feathering control system components f. Electronic engine control system components g. Ignition exciters h. Ignition plugs i. Electrical starters j. Ignition leads	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		2.11.4 Carry-out operational and functional check of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves d. Temperature and speed limiting system e. Propeller feathering control system f. Electronic engine control system g. Starting control system' h. Ignition control system i. Indication and warning system 2.11.5 Record maintenance entries as applicable	
	2.12 Perform unscheduled maintenance of aircraft's engine and propeller control system's electrical system	2.12.1 Review aircraft status reports 2.12.2 Perform troubleshooting of: a. Propeller speed indication system components b. Propeller de-icing control system components	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		c. Fuel control valves d. Temperature and speed limiting system components e. Propeller feathering control system components f. Electronic engine control system components g. Ignition exciters h. Ignition plugs i. Electrical starters j. Ignition leads 2.12.3 Replace defective: a. Propeller speed indication system components b. Propeller de-icing control system components c. Fuel control valves d. Temperature and speed limiting system components e. Propeller feathering control system components f. Electronic engine control system components g. Ignition exciters h. Ignition plugs i. Electrical starters	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		j. Ignition leads 2.12.4 Perform inspection of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves d. Temperature and speed limiting system e. Propeller feathering control system f. Electronic engine control system g. Ignition exciters h. Ignition plugs i. Electrical starters j. Ignition leads 2.12.5 Carry-out operational and functional check of: a. Propeller speed indication system b. Propeller de-icing control system c. Fuel control valves d. Temperature and speed limiting system e. Propeller feathering control system f. Electronic engine control system g. Starting control system'	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		h. Ignition control system i. Indication and warning system	
	2.13 Perform scheduled maintenance of aircraft's air conditioning system's electrical system	2.13.1 Review the maintenance planning document 2.13.2 Perform inspection of: a. Control system b. Indication system c. Protection system 2.13.3 Replace air conditioning electrical system components as per airworthiness requirements: a. Control system components b. Indication system components c. Protection system components 2.13.4 Carry-out operational check of: a. Control system b. Indication system c. Protection system 2.13.5 Record maintenance entries as applicable	
	2.14 Perform unscheduled maintenance of aircraft's air	2.14.1 Review aircraft status reports 2.14.2 Perform troubleshooting of: a. Control system	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
	conditioning system's electrical system	b. Indication system c. Protection system 2.14.3 Perform inspection of: a. Control system b. Indication system c. Protection system 2.14.4 Replace defective: a. Control system components b. Indication system components c. Protection system components 2.14.5 Carry-out operational check of: a. Control system b. Indication system c. Protection system	
	2.15 Perform scheduled maintenance of aircraft's ice and rain protection system's electrical system	2.15.1 Review the maintenance planning document 2.15.2 Perform inspection of: a. Warning and indication system b. Windscreen heating system c. Engine/propeller and airframe anti-ice protection system d. Warning and indication system e. Overhead indication and protection system	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		f. Windscreen wiper, washer and rain repellent system g. Sensors protection system h. Waste water heaters system i. Aerial heaters system 2.15.3 Replace ice and rain electrical system components as per airworthiness requirements: a. Warning and indication system components b. Windscreen heating system components c. Engine/propeller and airframe anti-ice protection system components d. Warning and indication system components e. Overhead indication and protection system components f. Windscreen wiper, washer and rain repellent system components	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		g. Sensors protection system components h. Waste water heaters system components i. Aerial heaters system components 2.15.4 Carry-out operational check of: a. Warning and indication system b. Windscreen heating system c. Engine/propeller and airframe anti-ice protection system d. Warning and indication system e. Overhead indication and protection system f. Windscreen wiper, washer and rain repellent system g. Sensors protection system h. Waste water heaters system i. Aerial heaters system 2.15.5 Record maintenance entries as applicable	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
	2.16 Perform unscheduled maintenance of aircraft's ice and rain protection system's electrical system	2.16.1 Review aircraft status reports 2.16.2 Perform troubleshooting of: a. Warning and indication system components b. Windscreen heating system components c. Engine/propeller and airframe anti-ice protection system components d. Warning and indication system components e. Overhead indication and protection system components f. Windscreen wiper, washer and rain repellent system components g. Sensors protection system components h. Waste water heaters system components i. Aerial heaters system components 2.16.3 Replace defective:	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		a. Warning and indication system components b. Windscreen heating system c. Engine/propeller and airframe anti-ice protection system components d. Warning and indication system components e. Overhead indication and protection system components f. Windscreen wiper, washer and rain repellent system components g. Sensors protection system components h. Waste water heaters system components i. Aerial heaters system components	
		2.16.4 Perform inspection of: a. Warning and indication system b. Windscreen heating system c. Engine/propeller and airframe anti-	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		- ice protection system d. Warning and indication system e. Overhead indication and protection system f. Windscreen wiper, washer and rain repellent system g. Sensors protection system h. Waste water heaters system i. Aerial heaters system 2.16.5 Carry-out operational check of: a. Warning and indication system b. Windscreen heating system c. Engine/propeller and airframe anti-ice protection system d. Warning and indication system e. Overhead indication and protection system f. Windscreen wiper, washer and rain repellent system g. Sensors protection system	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		h. Waste water heaters system i. Aerial heaters system	
	2.17 Perform scheduled maintenance of aircraft's galley/toilet services electrical system	2.17.1 Review the maintenance planning document 2.17.2 Perform inspection of: a. Power supply and protection system b. Water heating system c. Galley equipment system 2.17.3 Replace galley/toilet services electrical system components as per airworthiness requirements: a. Power supply and protection system components b. Water heating system components c. Galley equipment system components 2.17.4 Carry-out operational check of:	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		a. Power supply and protection system b. Water heating system c. Galley equipment system 2.17.5 Record maintenance entries as applicable	
	2.18 Perform unscheduled maintenance of aircraft's galley/toilet services electrical system	2.18.1 Review aircraft status reports 2.18.2 Perform troubleshooting of: a. Power supply and protection system components b. Water heating system components c. Galley equipment system components 2.18.3 Replace defective: a. Power supply and protection system b. Water heating system c. Galley equipment system 2.18.4 Perform inspection of:	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		a. Power supply and protection system b. Water heating system c. Galley equipment system 2.18.5 Carry-out operational check of: a. Power supply and protection system b. Water heating system c. Galley equipment system	
3.0 Perform maintenance of Aircraft's autopilot system	3.1 Perform scheduled maintenance of aircraft's autopilot flight guidance computer and controller system	3.1.1 Review the maintenance planning document 3.1.2 Perform inspection of: a. Flight guidance computer b. Advisory display panels/indicators c. Flight guidance controllers/Mode selector switches d. Auto Flight Control System (AFCS) interface/interlock unit e. Autopilot engagement and disengagement	Generic skills and knowledge • Using communication skills to work with others, reporting to superiors • Use of electrical wiring Manual • Use of Aircraft Maintenance Manual • Use of tools manual • Theoretical knowledge of maintenance practices

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		system components f. Autopilot and yaw damper switches g. Pitch thumb and wheel controllers 3.1.3 Replace aircraft autopilot flight guidance computer and controller system components as per airworthiness requirements: a. Flight guidance computer b. Advisory display panels/indicators c. Flight guidance controllers/Mode selector switches d. Auto Flight Control System (AFCS) interface/interlock unit e. Autopilot engagement and disengagement system components f. Autopilot and yaw damper switches g. Pitch thumb and wheel controllers	• Theoretical knowledge of human performance/factors • Theoretical knowledge of electronic fundamentals • Theoretical knowledge of electrical fundamentals • Theoretical knowledge of digital techniques Tools and Equipment • Personal Protective Equipment: safety shoes, dust coat and gloves • Tools kit • Multimeter • Electrostatic wrist strap • Soldering gun • Crimping tools • Contact extraction/insertion tools Materials

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		3.1.4 Carry-out operational check of: a. Flight guidance/Autopilot computer b. Autopilot interface system c. Flight guidance controller d. Advisory displays e. Autopilot engagement and disengagement system 3.1.5 Record maintenance entries as applicable	• Locking wires • Tie wraps • Cleaning agent • Contact cleaner • Contact enhancer • Electrical splices • Electrical wires • Soldering materials • Sealants • Heat shrink sleeves Worker behaviours • Team spirit • Trustworthy • Time management • Commitment
	3.2 Perform unscheduled maintenance of aircraft's autopilot flight guidance computer and controller system	3.2.1 Review aircraft status reports 3.2.2 Perform troubleshooting of: a. Flight guidance computer b. Advisory display panels/indicators c. Flight guidance controllers/Mode selector switches d. Auto Flight Control System (AFCS) interface/interlock unit e. Autopilot engagement and disengagement	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		system components f. Autopilot and yaw damper switches g. Pitch thumb and wheel controllers 3.2.3 Perform inspection of: a. Flight guidance computer b. Advisory display panels/indicators c. Flight guidance controllers/Mode selector switches d. Auto Flight Control System (AFCS) interface/interlock unit e. Autopilot engagement and disengagement system components f. Autopilot and yaw damper switches g. Pitch thumb and wheel controllers 3.2.4 Replace defective: a. Flight guidance computer b. Advisory display panels/indicators c. Flight guidance controllers/Mode selector switches	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		d. Auto Flight Control System (AFCS) interface/interlock unit e. Autopilot engagement and disengagement system components f. Autopilot and yaw damper switches g. Pitch thumb and wheel controllers 3.2.5 Carry-out operational check of: a. Flight guidance/Autopilot computer b. Autopilot interface system c. Flight guidance controller d. Advisory displays e. Autopilot engagement and disengagement system	
	3.3 Perform scheduled maintenance of aircraft's autopilot command system	3.3.1 Review the maintenance planning document 3.3.2 Perform inspection of: a. Aileron servo motors/roll actuators b. Roll actuator capstan	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		c. Elevator servo motors/pitch actuators d. Pitch actuator capstan e. Elevator trim f. Rudder/Yaw damper 3.3.3 Replace autopilot command system components as per airworthiness requirements: a. Aileron servo motors/roll actuators b. Roll actuator capstan c. Elevator servo motors/pitch actuators d. Pitch actuator capstan e. Elevator trim f. Rudder/Yaw damper 3.3.4 Carry-out functional check of: a. Aileron servo motors/roll actuators b. Roll actuator capstan c. Elevator servo motors/pitch actuators d. Pitch actuator capstan a. Elevator trim	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		b. Rudder/Yaw damper 3.3.5 Record maintenance entries as applicable	
	3.4 Perform unscheduled maintenance of aircraft's autopilot command system	3.4.1 Review aircraft status reports 3.4.2 Perform troubleshooting of: a. Aileron servo motors/roll actuators b. Roll actuator capstan c. Elevator servo motors/pitch actuators d. Pitch actuator capstan e. Elevator trim f. Rudder/Yaw damper 3.4.3 Perform inspection of: a. Aileron servo motors/roll actuators b. Roll actuator capstan c. Elevator servo motors/pitch actuators d. Pitch actuator capstan e. Elevator trim f. Rudder/Yaw damper 3.4.4 Replace defective:	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		a. Aileron servo motors/roll actuators b. Roll actuator capstan c. Elevator servo motors/pitch actuators d. Pitch actuator capstan e. Elevator trim f. Rudder/Yaw damper 3.4.5 Carry-out functional check of: a. Aileron servo motors/roll actuators b. Roll actuator capstan c. Elevator servo motors/pitch actuators d. Pitch actuator capstan e. Elevator trim f. Rudder/Yaw damper	
	3.5 Perform scheduled maintenance of aircraft's auto-throttle system	3.5.1 Review the maintenance planning document 3.5.2 Perform inspection of: a. Auto throttle computer b. Auto throttle system control panel c. Auto throttle indication system	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		d. Engine electronic control unit e. Auto throttles engagement and disengagement system 3.5.3 Replace auto throttle system components as per airworthiness requirements: a. Auto throttle computer b. Auto throttle system components control panel c. Auto throttle indication system components d. Engine electronic control unit e. Auto throttles engagement and disengagement system components 3.5.4 Carry-out operational and functional check of: a. Auto throttle computer b. Auto throttle system control panel c. Auto throttle indication system d. Engine electronic control unit e. Auto throttles engagement and	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		disengagement system 3.5.5 Record maintenance entries as applicable	
	3.6 Perform unscheduled maintenance of aircraft's auto-throttle system	3.6.1 Review aircraft status reports 3.6.2 Perform troubleshooting of: a. Auto throttle computer b. Auto throttle system control panel c. Auto throttle indication system d. Engine electronic control unit e. Auto throttles engagement and disengagement system components 3.6.3 Perform inspection of: a. Auto throttle computer b. Auto throttle system control panel c. Auto throttle indication system d. Engine electronic control unit e. Auto throttles engagement	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		and disengagement system 3.6.4 Replace defective: a. Auto throttle computer b. Auto throttle system control panel c. Auto throttle indication system components d. Engine electronic control unit e. Auto throttles engagement and disengagement system components 3.6.5 Carry-out operational and functional check of: a. Auto throttle computer b. Auto throttle system control panel c. Auto throttle indication system d. Engine electronic control unit e. Auto throttles engagement and disengagement	

DUTIES	TASKS	TASK ELEMENTS	ENABLERS
		nt system components	