COMPANY MAINTENANCE MANUAL

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SCA/TEK/2-001	02	03	14 August 2023
PT. Smart Cakrawala Aviation			

PREPARED BY:

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PT.SCA

COMPANY MAINTENANCE CMM MANUAL

SCA/TEK/2-001
ISSUED: 02
REVISION: 03
14 AUGUST 2023

ORIGINAL

DISTRIBUTION LIST OF COMPANY MAINTENANCE MANUAL

DISTRIBUTION	CMM HOLDER
ORIGINAL	Library
01	Chief Inspector
02	President Director
03	Technical Manager
04	DGCA
05	Tarakan Base
06	Singkawang Base
07	Nabire Base
08	Timika Base
09	Tanah Merah Base
10	Malinau Base
11	Dekai Station

RECORD OF REVISION

This record of revisions shall be retained in this Company Maintenance Manual. Revisions shall be inserted to replace the superseded pages in this document with the revision date, insertion date and name of person incorporating the revision annotated in the appropriate block below.

Decision to continue new issue of CMM has been agreed if one following condition exist:
1. 50% Content CMM is revise
2. Number revision more than 10.

ISSUE/REVISION NUMBER	REVISION DATE	INSERTION DATE	INSERTED BY (Name in BLK)
1st / 14	18 March 2022	January 2022	YANUAR
2nd / 00	18 March 2022	March 2022	YANUAR
2nd / 01	7 August 2022	August 2022	YANUAR
2nd / 02	14 April 2023	April 2023	YANUAR
2nd / 03	14 August 2023	August 2023	ISTIONO

HIGHLIGHT OF REVISION

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Issued 02, Rev. 02	14 April 2023	8.1.5 8.1.6	8.3	Add crew responsibilities to fill the rectification column for test flight and brake burn in. Add engineer responsibilities to fill the discrepancies on AFML
Issued 02, Rev. 02	14 April 2023	Appendix A	A.1	Add Management Personnel for Chief Technical Support
Issued 02, Rev. 03	14 August 2023	Chapter 2	2.2 2.8	Company Registered Name and Address Organization

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Approved by:

ISTIONO
TECHNICAL MANAGER

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Accepted by:

ABIF HARTAWAN
AIRWORTHINESS INSPECTOR

1.1. PREFACE

The Company Maintenance Manual (CMM) has been prepared in accordance with Civil Aviation Safety Regulations and is not contrary to any applicable Regulation, or the Company's Operations Specifications or operating certificate.

The Company Maintenance Manual has been compiled for the use and guidance of all personnel responsible for performing maintenance and/ or overhaul on aircraft. Each manual is numbered and assigned to specific individuals and departments / section as necessary.

This manual is to be used in conjunction with other manuals, manufactures' maintenance and overhaul manuals and in accordance with applicable Aviation Regulations. The Company Maintenance Manual will provide direction for use with aircraft, engine, and component maintenance and overhaul manuals. It also provides guidelines on how to fulfill requirements outlined in CASR's, AD's, SB's, etc. and the proper completion of the forms related to and distribution of the necessary reports in conjunction with the CASR's. If any material described in this Manual is in conflict with the CASR, the CASR will take priority. Manufacturer's manuals are also included and are considered part of the Company manual.

This manual and related reference material will be maintained in the office of the in Technical Department where it will be made available to appropriate company's personnel and DGCA Inspectors.

All maintenance employees are required to adhere to the instructions contained in this manual and follow the procedures outlined. In the event procedures in the manufacturers' publications differ from this manual, the manufacturer's manual prevails.

All personnel are encouraged to submit suggestions and recommendations to improve utilization and Maintenance quality of the manual.

The design of this manual has been observed with Human Factors principles.

1.2. MANAGEMENT COMMITMENT

This Company Maintenance Manual documents the Maintenance System of Technical Department of PT. Smart Cakrawala Aviation. It describes the structures and sequences on which organization of the Quality System is based and the means for implementing the stipulated by the PT. Smart Cakrawala Aviation. The company management and all personnel are committed to the implementation of this Company Maintenance Manual. This requirement includes the Indonesian Airworthiness Regulations in the Civil Aviation Safety Regulations (CASR) that must be complied in running the Maintenance aspect of Civil Aviation Business.

The aim is to ensure that products & Services provided conform to requirements placed on Maintenance Objectives and meet customer expectations as described in Maintenance Policy. The Company Maintenance Manual is intended to guide personnel within the company and contribute to safe and efficient performance of their tasks.

Each manager/chief of the organizational unit is responsible for ensuring that his personnel have an adequate knowledge of the requirements arising from the Company Maintenance Manual and other applicable regulations of relevance to his division and that they meet such requirements when carrying out their tasks.

Jakarta, 15th August 2019

Pongky Majaya
Direktur Utama

1.3. INTRODUCTION

The purpose of this Company Maintenance Manual (CMM) is to provide official guide regarding the proper procedures and practices to be followed in conducting maintenance under the Air Operator Certificate issued by Directorate General Civil Aviation in compliance with Civil Aviation Safety Regulation (CASR) Part 135.

Copies of this Company Maintenance Manual will be distributed to all Manager / chief of the Technical Department. Chief Inspector will determine the distribution of the manual.

It will be their responsibility of the Technical Manager / Chief to assure that all engineers and inspectors are formally trained, kept current and familiar with the contents of this manual.

All work performed at this Air Operator Certificate including outlying station will be performed in accordance with the Policies & Procedures in this Company Maintenance Manual, all applicable Civil Aviation Safety Regulation and Manufacturer Maintenance Manuals.

This Company Maintenance Manual will be subjected to revision as necessary. It will be the responsibility of the person to whom this manual is issued to maintain it and insert all amendments and revisions. Such amendments and revisions will be issued by whom this manual is issued in the form of new revised pages.

1.4. MANUAL CONTROL SYSTEM

1.4.1. Policy

Each Company Maintenance Manual will have a control number and assignment entry on the manual cover page. A master list containing the manual number, location and revision status will be kept by Inspection Unit.

1.4.2. Page Control System

a. Record of Revision

Designed to quickly identify the current revision status of the manual.

b. List of Effective Pages

Designed to provide a summary listing of all applicable pages and the revision date for the entire manual

c. Page Format

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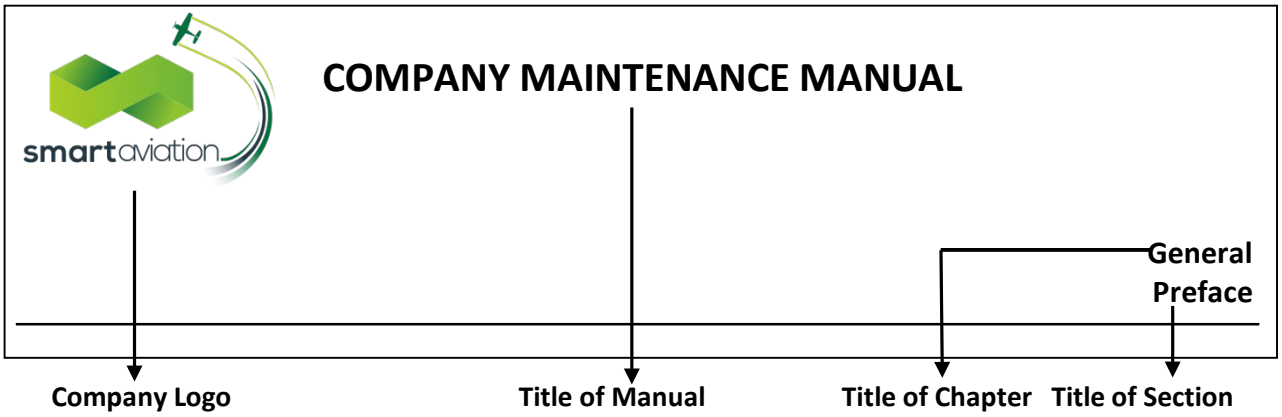

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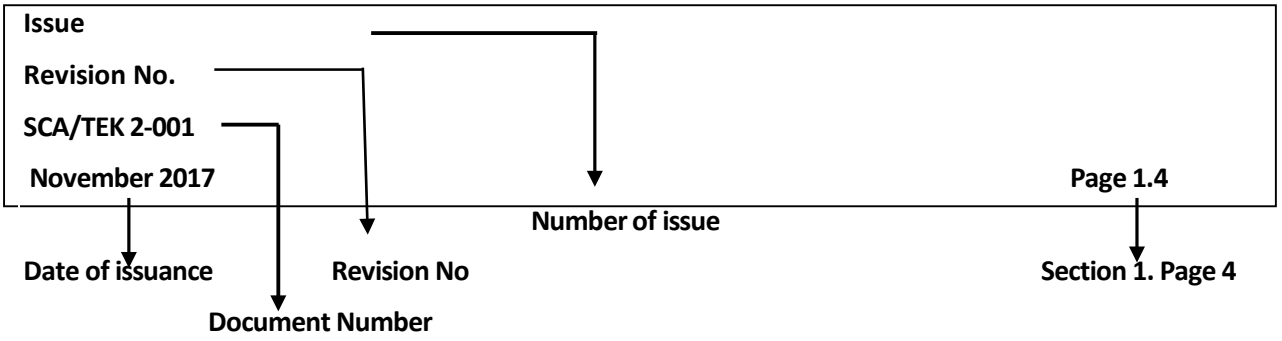

1.5. MANUAL REVISION AND DISTRIBUTION PROCEDURE

1.5.1. Revision Procedures

a. All amendments, revisions, and/or alterations to the Company Maintenance Manual must be accepted by the DGCA.
   - Changes shall be recorded through incorporation in a Record of Revisions.
   - Changes may NOT be made with written notification on the current document page(s). Superseded pages will be replaced with current page. The bottom of each page shall indicate its issue and revision status (date and number).

b. Revisions to the Company's Maintenance Manuals are the responsibility of ***Technical Manager***. The revisions are made on an as needed or as required basis to correct, add to, and/or more clearly define policies, procedures, methods, and techniques and to reflect new or revised procedures.

c. Whenever revisions are made, either by the company or the manufacturer, Maintenance Publications shall route them to the holders of manuals. The responsibility for inserting revisions is the direct responsibility of the manual holder.

d. If the only change was to the page number a vertical bar will be placed in the left hand margin next to the revision number.

e. ***Technical Manager*** will periodically at least once a year to review the Company Maintenance Manual with all relevant unit concern. These reviews will either confirm that the manual still current and valid for the Air Operator Certificate use or will be identified needed change. Technical Manager will coordinate with Chief Inspector for reviewing the Chapters related to quality issue

f. This manual and revision will be approved by the ***Technical Manager***, and forward to DGCA for Acceptance. Upon Acceptance by DGCA, sufficient copies will be made and distributed the revision page to each manual holder.

g. Upon receipt of a revision, each manual holder shall responsible for inserting the revised pages on the manual, record of revision on the manual, and the superseded will return to Inspection Unit Office

h. A list of effective pages will be issued with each revision so each manual can be checked and kept current.

1.5.2. Distribution List

The Company Maintenance Manual shall be distributed to all personnel involved and will be the responsible of Chief Inspector as the Controlled Copy. Other personnel may obtain copy of this Company Maintenance Manual, but this manual is not controlled and invalid manual.

Chief Inspector will distribute this Company Maintenance Manual to the listed functions below, as master list of the Company Maintenance Manual.

List of Company Maintenance Manual holders and Control Number of Distribution:

DISTRIBUTION	CMM Holder
ORIGINAL	Library
01	Chief Inspector
02	President Director
03	Technical Manager
04	DGCA
05	Tarakan Base
06	Singkawang Base
07	Nabire Base
08	Timika Base
09	Tanah Merah Base
10	Malinau Base
11	Dekai Station

1.6. DEFINITIONS & ABBREVIATIONS

1.6.1. Definitions

Accountable manager means designed an organization employee.

Aircraft – Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Airworthy - Conform to type design and condition for safe operation.

Airworthiness Certificate/Certificate of Airworthiness (C of A) means A document issued by a DGCA to an individual aircraft and the aircraft meets the appropriate airworthiness requirements.

Airworthiness Directive (AD) means the legally enforceable rules that apply to the following products: aircraft, aircraft engines, propellers, and appliances.

Approved. Accepted by a Directorate General of Civil Aviation as suitable for a particular purpose.

Type design means the configuration and the design features of the product shown to comply with the airworthiness requirements (see CASR Part 21.31).

Approved maintenance organization. An organization approved by a DGCA, in accordance with the requirements of CASR Part 145 - Aircraft Maintenance, to perform maintenance, preventive maintenance, or alterations of an aircraft, airframe, aircraft engine, propeller, appliances, or components of aircraft or parts thereof and operating under supervision approved by DGCA.

Approved training. Training carried out under special curricula and supervision approved by a Contracting State.

Certificate means a document issued by, or on behalf of DGCA which confirms a regulatory standard as described in document, has been met. A certificate does not convey any authority to act.

Certify as airworthy (to). To certify that an aircraft or parts thereof comply with current airworthiness requirements after maintenance has been performed on the aircraft or parts thereof.

Repair. The restoration of an aeronautical product to an airworthy condition to ensure that the aircraft continues to comply with the design aspects of the appropriate airworthiness requirements used for the issuance of the type certificate for the respective aircraft type, after it has been damaged or subjected to wear.

Director or DGCA. The Director of the Directorate General of Civil Aviation, or any person authorized to act on his behalf.
Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

A *certificate of maintenance approval* is equivalent to a license, but the group or type ratings may be limited in respect of validity and scope.

A *type rating* is a rating for a specified individual aircraft or component.

Maintenance release mean a document which contains a certification conforming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedure described in maintenance organizations procedures manual or under an equivalent system.

Sign a maintenance release (to). To certify that maintenance work has been completed satisfactorily in accordance with the applicable Standards of airworthiness, by issuing the maintenance release referred to in Annex 6.

Propeller means a device for propelling an aircraft that has blades on an engine driven shaft and that, when rotated, produces by its action on the air, a thrust approximately perpendicular to its plane of rotation. It includes control components normally supplied by its manufacturer but does not include main and auxiliary rotors or rotating airfoils of engines.

Functional Check - A functional check is a quantitative check to determine if one or more functions of an item perform within specified limits.

Restoration Task - That work necessary to return the item to a specific standard. Since restoration may vary from cleaning or replacement of single parts up to a complete overhaul, the scope of each assigned restoration task has to be specified.

Discard Task - The removal from service of an item at a specified life limit. Discard tasks are normally applied to so-called single parts such as cartridges, canisters, cylinders, engine disks, and safe-life structural members.

Visual Check - A visual check is an observation to determine that an item is fulfilling its intended purpose. The check does not require quantitative tolerances. This is a failure finding task.

General Visual (Surveillance) Inspection – A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.

Detailed Inspection – An intensive visual examination of a specific structural area, system, installation or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate by the inspector. Inspection aids such as mirrors, magnifying lenses, etc. may be used. Surface cleaning and elaborate access procedures may be required.

Special Detailed Inspection - An intensive examination of a specific item(s), installation or assembly to detect damage, failure, or irregularity. The examination is likely to make extensive use of specialized inspection techniques and/or equipment. Intricate cleaning and substantial access or disassembly procedure may be required.

Lubrication or Servicing Task – Any act of lubrication or servicing for the purpose of maintaining inherent design capabilities.

Maintenance - The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

Maintenance Program - mean a document which describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability program, necessary for the safe operation of those aircraft to which it applies.

Major Alteration - means an alteration not listed in the aircraft, aircraft engine, or propeller specifications:

1. That might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or
2. That is not done according to accepted practices or cannot be done by elementary operations.

Major Repair - means a repair:

1. That, if improperly done, might appreciably affect weight, balance, structural strength, performance, power plant operation, flight characteristics, or other qualities affecting airworthiness; or
2. That is not done according to accepted practices or cannot be done by elementary operations.

Minimum equipment list (MEL). A list which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the MMEL established for the aircraft type.

Operational Check - An operational check is a task to determine that an item is fulfilling its intended purpose. The check does not require quantitative tolerances. This is a failure finding task.

Training program - means courses, courseware, facilities, flight training equipment, and personnel necessary to accomplish a specific training objective. It may include a core curriculum and a specialty curriculum.

Service Difficulty Report (SDR) means the certificate holder report the occurrence or detection of each failure, malfunction, or defect. (ref. CASR 121.703)

Center of gravity (CG) means Any imaginary point about which the nose heavy and tail heavy moments are equal in magnitude.

Empty Weight means the weight of aero plane in empty condition, as specified by its appropriate approved manuals. Includes all operating than has a fixed location and is installed in the aircraft.

Max. Zero Fuel Weight means in the maximum weight allowed before useable fuel and other specified usable agents are loaded in defined section of the aircraft. It may include useable fuel when carried in lieu of pay load. It is limited by aircraft structure and airworthiness requirements.

Weight Report means Report which is issued by Aircraft Authorized person as a result of the weighing *Weight and C of G position.*

1.6.2. Abbreviation

"AD" means Airworthiness directive.

"AC" means Advisory Circular.

"ACL" means Authorization, Condition and Limitation.

"AFM" means Aircraft Flight Manual.

"ALI" means Airworthiness Limitation Inspection.

"AMO" means Approved Maintenance Organization.

"AMM" means Aircraft Maintenance Manual.

"AOM" means Aircraft Operating Manual.

"ARC" means Authorized Release Certificate (old was AAT: means Airworthiness Approval Tag).

"CI" means Chief Inspector.

"DG" means Directorate General.

"PMI" means Principle Maintenance Inspector.

"RTS" means return to service.

"SCA" means Smart Cakrawala Aviation.

"SB" means Service Bulletin.

"SDR" means Service Difficulty Report.

"SI" means Staff Instructions.

"S/N" means Serial Number of product or parts.

"STC" means Supplement Type certificate.

"TC" means Type Certificate.

"TCDS" means Type Certificate Data Sheet.

"TBO" means Time Between Overhaul.

"TM" means Technical Manager.

"TSOA" means Technical Standard Order Authorization.

"TSN" means Time since new.

"TSO" means Time since overhaul.

"CSN" means Cycle since new.

"CSO" means Cycle since overhaul.

"WO" means Work Order.

"FOD" means Foreign Object Damage.

1.7. TYPE OF AIRCRAFT OPERATED

The following types and general specification of aircraft operated by PT. Smart Cakrawala Aviation are described under Authorization, Condition and Limitation (A.C.L) Part D85 Aircraft Listing of PT. Smart Cakrawala Aviation accordance latest revision.

1.8. CROSS REFERENCE TO REGULATIONS MATRIX

Company Maintenance Manual (CMM)		Civil Aviation Safety Regulation (CASR 91, 135, 43, 145)	
Chapter / Sub Chapter	**Title**	**Part / Sub Part**	**Title**
Chapter 1. General			
1.1	Preface	91.1 135.3	Applicability
1.2	Management commitment	135 App. G/CASR 19	Safety Management System
1.3	Introduction	135.141	Company Maintenance Manual
1.4	Manual control system	135.369	CMM Requirements
1.5	Manual revision and distribution procedure	135.369	CMM Requirements
1.6	Definitions & Abbreviations	Part 1	Definitions & Abbreviations
1.7	Type of aircraft operated	135.27	Content of the Operations Specifications
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GENERAL

2.1.1 Cross Reference

CASR 135.43, 135.45, 135.47

2.1.2 Introduction

a. PT. Smart Cakrawala Aviation is primarily responsible for the airworthiness and performance of the maintenance, preventive maintenance, and alteration to its aircraft, airframes, aircraft engines, appliances, emergency equipment and parts thereof.

b. PT. Smart Cakrawala Aviation Main business is Aerial Survey, Passenger and Cargo.

c. PT. Smart Cakrawala Aviation will make arrangements with other persons to perform maintenance, preventative maintenance, and alterations to its aircraft in accordance with PT. Smart Cakrawala Aviation approved maintenance program and manuals.

d. The CASR requires the PT. Smart Cakrawala Aviation and other persons who perform work on PT. Smart Cakrawala Aviation aircraft to have an organization adequate to perform that work. To accomplish this, the Technical Department has been established.

e. The CASR requires the Company and other persons who perform Required Inspections on Company aircraft to have an organization adequate to perform that work. Chief Inspector has been established to carry out the inspection function of the Company. Chief Inspector will assure compliance with the CMM Requirements and he is responsible for the efficient and economical determination of airworthiness of aircraft operated by the Company.

2.1.3 Philosophy and goals.

It is the Policy of the PT. Smart Cakrawala Aviation to provide assure compliance with the CMM Requirements and is responsible for the efficient and economical determination of airworthiness of aircraft operated by the Company.

To achieve this objective, the management and personnel are committed to the effective use of Quality System and the effective implementation and maintenance of Aviation Regulations/requirements and any other applicable standards.

To enable us to achieve our business objectives and stated level of Customer Satisfaction, we shall empower our personnel to resolve problems by taking timely corrective and preventive actions and maintaining a continual focus on fast and systematic response to our internal and external customer needs.

All management of PT. Smart Cakrawala Aviation shall take all the responsibility, to ensure that all-necessary resources available to accomplish maintenance in accordance with the requirements of this manual.

This quality system is examined during Management Reviews to ensure permanent compliance.

2.1.4. Company Registered Name and Address (CASR 135.35)

At least 30 (thirty) days before it proposes to establish or change the location of its principal base of operation, its main operations base, or its main maintenance base, PT Smart Cakrawala Aviation will provide written notification to the Director General.

PT. Smart Cakrawala Aviation

Principle Place Business – Office Address:
Gedung Smartdeal lt.4 ,Jalan Cideng Timur No.16A
Jakarta Pusat 10130, Indonesia.
Phone: +62 21 6305210
Fax: + 62 21 6324873

Operational Place Business – Office Address:
Jalan Pantai Indah Selatan 1 no.4, Penjaringan,
Jakarta Utara 14460, Indonesia.
Phone: +62 21 50112330

Base Maintenance Address

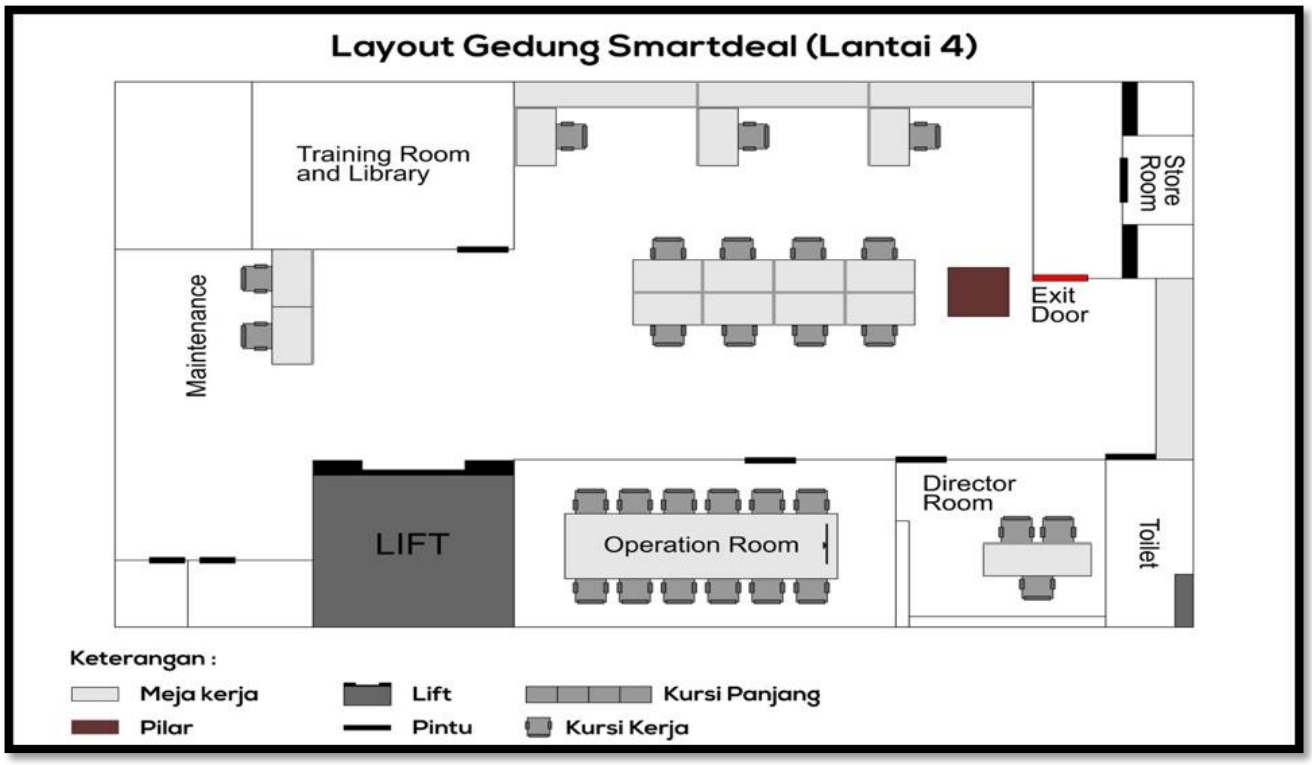
1. Hangar Smart Aviation
Bandara Khusus Smart Semelagi
Jl. Demang Akub RT.10 Kel. Semelagi Kecil,
Kec. Singkawang Utara Kota Singkawang,Kalimantan Barat,
Indonesia.

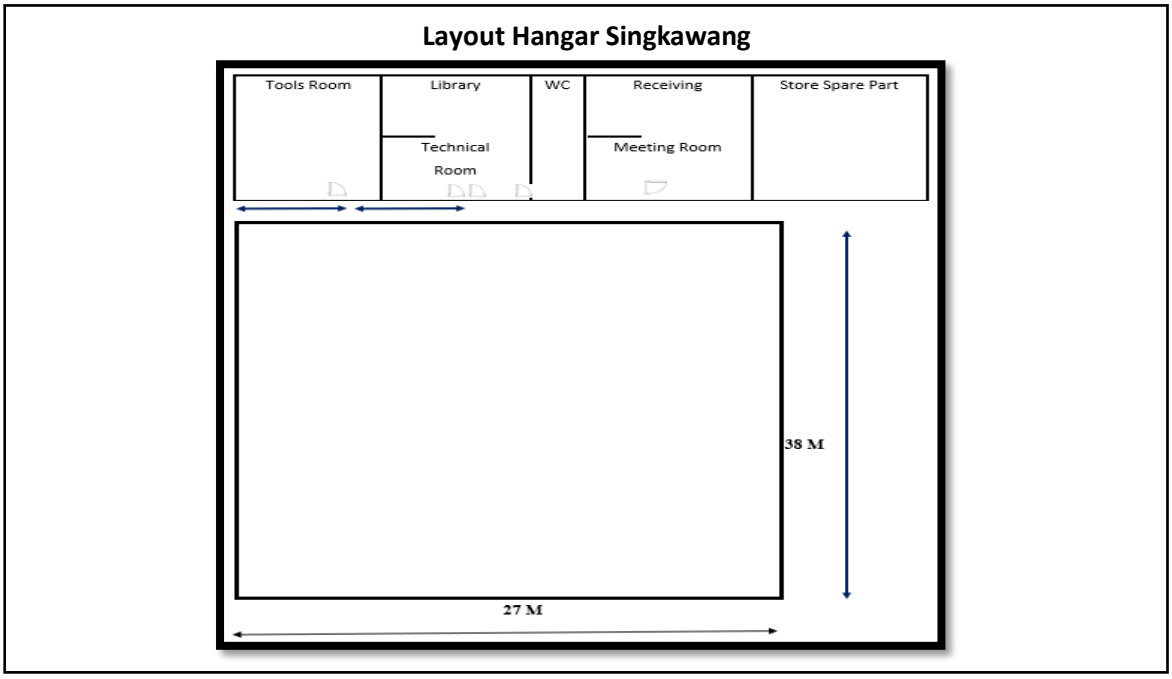
2. Hangar Smart Aviation
Bandar Udara Douw Aturure
JL. Trikora, Morgo, Kec. Nabire, Kabupaten Nabire, Papua,
Indonesia.

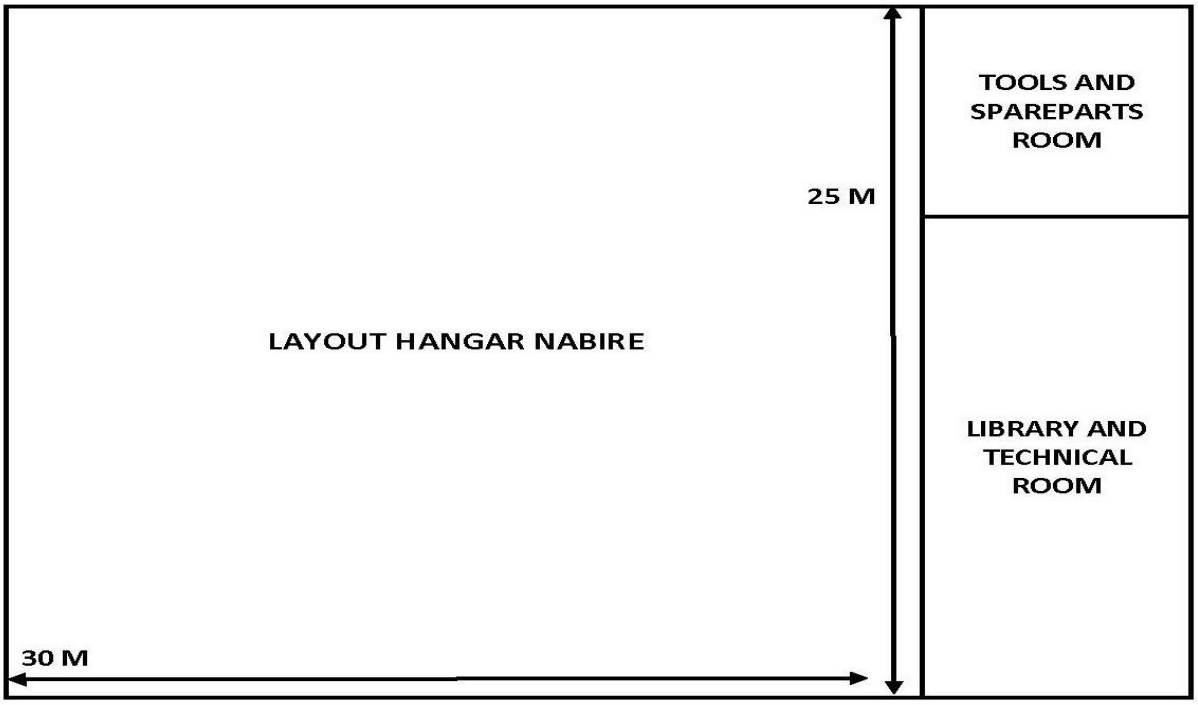
3. Hangar Smart Aviation
Bandar Udara R.A Bessing
Kabupaten Malinau,Kalimantan Utara 77554
Indonesia.

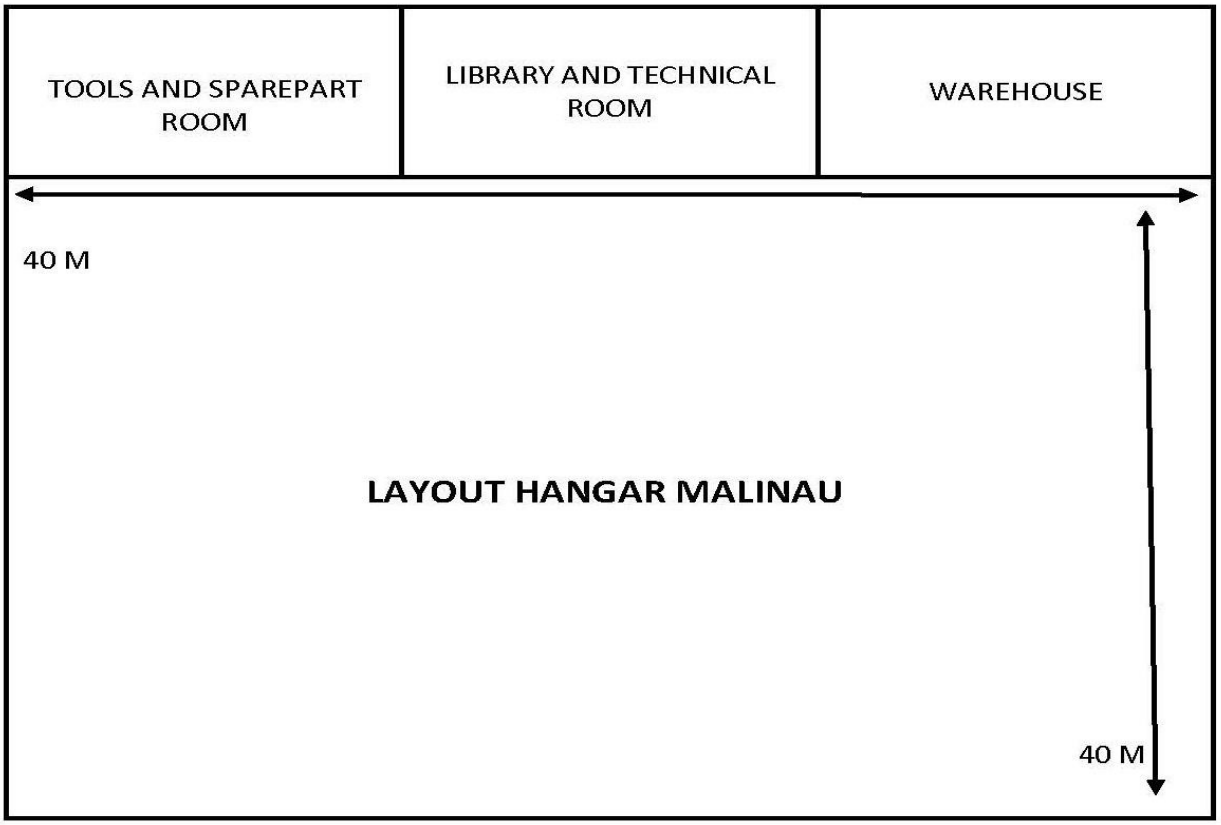
4. Hangar Smart Aviation
Bandar Udara international
Mozes Kilangin Timika
Mimika,Papua Tengah 99971
Indonesia.

2.1.5. Lay out office Technical Department and Hangar (CASR 135.35)






TOOLS AND SPAREPARTS ROOM
25 M
LAYOUT HANGAR NABIRE
LIBRARY AND TECHNICAL ROOM
30 M


TOOLS AND SPAREPART ROOM
LIBRARY AND TECHNICAL ROOM
WAREHOUSE
40 M
LAYOUT HANGAR MALINAU
40 M

2.2 ORGANIZATION (CASR 135.43)

2.2.1. Policy

PT. Smart Cakrawala Aviation Organization is comprised of the necessary personnel to accomplish the requirements as required by Civil Aviation Safety Regulation (CASR).

The Technical Department functions under the direction and control of the Technical Manager. The detailed responsibilities of the Technical Department in achieving its objectives are contained in this manual.

1. The Technical Department maintains the aircraft operated and aircraft equipment employed in a continuous state of airworthiness. It is the primary maintenance production segment of on demand charter.
2. All work accomplished by the Company will be performed by an appropriately rated contract agency, manufacturer or appropriately certified airlines or engineers; and will be done in accordance with the Company's manuals or Overhaul manuals, Manufacturers' manuals, bulletins, Specifications, current DGCA rules and regulations, as applicable.
3. In compliance with CASR 135.365, the organizational structure provides for the separation of the inspection function from the maintenance function and the "Required Inspection Item" functions from the other maintenance functions. Therefore, PT. Smart Cakrawala Aviation separates the both Maintenance Unit and Inspection Unit to make sure that the Inspection Unit can perform their duties independently and qualities of airworthiness are implemented.
4. If any changing of key personnel PT. Smart Cakrawala Aviation will notify to DGCA within 7 days, of any temporary assignment to these positions and within 30 days, submit a nomination requesting approval for a new candidate.

2.2.2. Technical Department

Technical Department is under the direction and control of the Technical Manager and he is responsible to the Director. The primary responsibility is to ensure the Airworthiness of the aircraft through constant communication with the Operation Department. Technical Department is the central point of contact for all maintenance activities conducted at Base Maintenance and Outside Maintenance Stations. Duties and responsibilities consist of, but not limited to:

1. Is primarily responsible for determining the course and priority of action and support of those activities to ensure maintenance requirements are met.
2. Provides proper interpretation of all manual material pertinent to the situation, and when necessary, obtains additional Maintenance assistance to support the decision.
3. Maintains communication with flight crews and maintenance personnel to ascertain the nature of maintenance discrepancies and use PT. Smart Cakrawala Aviation CMM for disposition of maintenance requirements.

2.2.3. Inspection Unit

The Quality functions under the direction and control of the Chief Inspector, for the overall management of the Inspection Unit.

1. CASR 135.365 requires the Company and other persons who perform Require Inspections on Company aircraft to have an organization adequate to perform that work. Inspection Unit has been established to satisfy the inspection function of the Company. This unit will assure compliance with the Civil Aviation Safety Regulations and is responsible for the continued airworthiness of aircraft operated by the Company.
2. The Company will assure that all personnel responsible for Inspection, Maintenance or Preventive Maintenance are trained, qualified and authorized.
3. List of Person Authorization to perform RII (Form No. SCA/MTC/059) and List of Inspection Personnel Roster (Form No. SCA/MTC/038) has attached in Appendix C.

2.3. ORGANIZATION STRUCTURE (CASR 135.43 & 135.365)

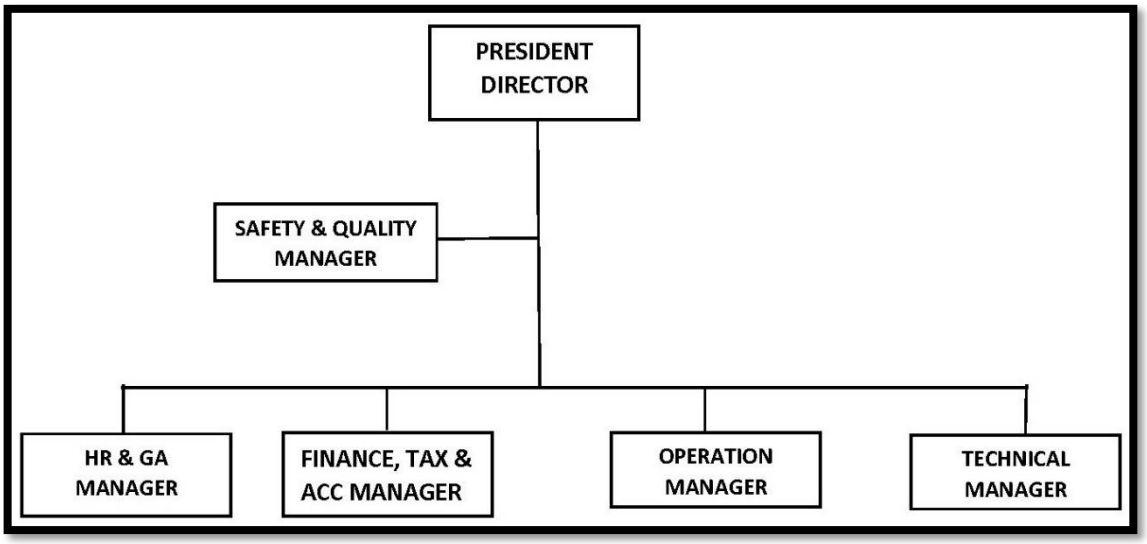


Fig. 2-1: PT. Smart Cakrawala Aviation Organization Chart (MANAGEMENT)

Notify any vacancy and submit the proposal for any change of its management personnel within 10 (ten) days to the Director Airworthiness and Aircraft Operation (DAAO).

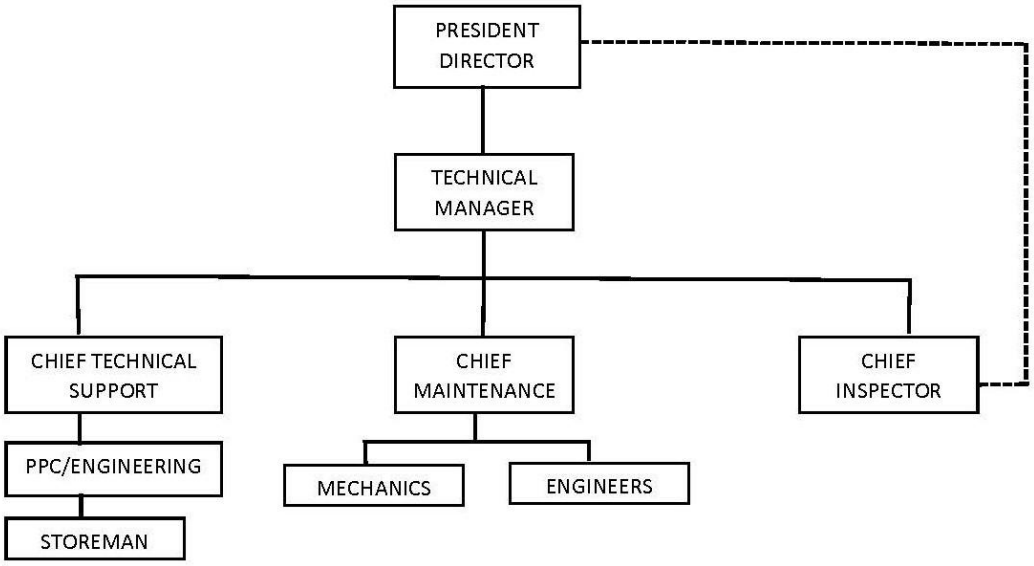


Fig. 2-2: PT. Smart Cakrawala Aviation Organization Chart (TECHNICAL DEPARTMENT)

2.4. DUTIES, RESPONSIBILITIES AND QUALIFICATION

The individuals who nominated in the positions Technical Manager (Director of Maintenance) and Chief Inspector shall passed fit and proper test by DAAO.

Nominated to each position will use nomination form, giving sufficient details to demonstrate that the candidate qualifications, experience and background.

2.4.1 President Director

President Director responsible for availability of the funds to maintain adequate housing, facility and equipment to enable the Company to perform the maintenance work to which it is contracted and any additional work and to serve as President Director have:

1. Operational and managerial skill to manage the commercial air transport business;
2. Have never been involve in a criminal act based on a court decision that has obtained permanent legal force related to the operation of air transport; and
3. Able to manage a commercial air transport business organization, has never been declared bankrupt in accordance with the provisions of the legislation.

2.4.2 Technical Manager

Report to : President Director

Scope : The Technical Manager is report directly to the Director and is the administrative of all function of Technical Department. Technical Manager is responsible for the complete overall operations, including ensuring the adequate for continued maintaining of airworthiness of aircraft.

A. Duties of the Technical Manager is:

1. To establish and maintain a Technical Department organizational structure with competent personnel and organize the department responsibly.
2. To ensure that the responsibilities of the Department are clearly defined and personnel's responsibility for performance are expressly delegated.
3. To direct all activities concerned with maintenance, overhaul and repair of SCA AOC and clients' aircrafts, power plant and components and be responsible to ensure all work and processes meet quality standards.
4. To ensure the Company has:
   a. Facilities, office accommodation and working environment appropriate to accomplish the work to support the organization's approval.
   b. Storage facilities for parts, tools, equipment and material.
   c. Sufficient personnel to plan, perform, supervise, inspect and certify the work being performed.
   d. Appropriate and sufficient tools, materials to perform the planned tasks.
   e. All necessaries airworthiness data from Indonesian Authority and the aircraft manufacturer applicable to the task being performed.
   f. Monitor progress against plans and budgets for the organization as a whole and examine the cause of variances and the corrective actions for any major variances.

g. Preparation of details plans for the development of the facility and the organization's resources and the pursuit of the agreed objectives and goals.
h. Ensure that all audit findings carried out internally and by Indonesian Authority are attended and resolved within the agreed timeframe.

B. Responsibilities of the Technical Manager:

1. Coordinating and controlling the technical administration of his/ her department.
2. The efficiency operation of technical department and introducing systems and methods to increase productivity and quality.
3. Improvement capability of his/ her department including equipment and personnel capability (skill).
4. The overall operation of all maintenance departments.
5. To be responsible that all of his/ her employee is following the regulation of authority and manufacturer requested.
6. Is responsible for ensuring that all work on aircraft components is carried out to the standards approved by DGCA and also responsible for any corrective action resulting from the quality compliance monitoring.
7. Approve Company Manual, Advisory Notice for Technical Department.
8. Publishing of revision, distributions and control of company manuals applicable to the Maintenance records.
9. Implementing of Continuous Analysis and Surveillance Program (Data Collection and Analysis

C. Authority of the Technical Manager:

1. To promote new capability as required.
2. Propose new employee or training necessary on this department.
3. Promoting maintenance people or change the position of the Engineer/technician.
4. Has to do the balancing act of managing technical processes and teams along with using his technical skills to provide the necessary environment for project success.

D. Qualification to become the Technical Manager:

1. Holds an appropriate AME license, or equivalent qualifications acceptable to the DGCA.
2. Has had at least 5 (five) years of experience in the maintenance, one year of which must have been in a supervisory capacity.
3. Knows the operations specifications and the applicable maintenance provisions of this part.
4. Has been trained for all training required according to Training Program.

The Technical Manager is authorized to delegate his/ her duties by hiring qualified assistance as deems necessary. However, such delegation does not relieve him/ her from overall responsibilities in his/ her department.

The Technical Manager deputed to Chief Inspector for temporary in charge when technical manager cannot perform his/her Duties and Responsibilities, i.e. On leave or as holder of Aircraft Maintenance Engineer License perform as duty engineer to maintain current license.

2.4.3 Chief Inspector

Report to : Technical Manager

Scope : The Chief Inspector is directly responsible to the Technical Manager, but he has direct access to the Director. He will responsible for quality control of all maintenance activities and have the authority to change procedures and practices that do not conform to CASR.

A. Duty of the Chief Inspector is:

1. Plan, implement and direct inspection standards methods and procedures utilized by the Company in complying with applicable regulations and manufacturer's requirement.
2. Project the number and type of qualified Company personnel and Services as to integrate its capabilities requirements with productions and is responsible for, the selection administration, training and performance of Technical Services personnel.
3. Coordinate planning personnel and Services as to integrate capabilities requirements with production activities, and ensure a level of consistency, accountability and control of work documents.
4. Along with Chief Technical Services, Interpret Airworthiness Directives, Regulation, Manufacturer's Services Bulletins and Letters, Engineering Publications, Maintenance Manuals and other data.
5. Authorize the implementation of Airworthiness Directive, Bulletins and Engineering Instruction.
6. Maintain a current roster of all Company personnel authorized to sign for Required Inspection Items (RII's) and Return to Service.
7. Coordinate with the Technical Manager in establishing and maintaining a program for the performance of training of engineers, inspectors, and related maintenance personnel.
8. Participate in the investigation of accident / incident.
9. Implementing of Continuous Analysis and Surveillance Program (Data Collection and Analysis
10. Other duties as assigned by Technical Manager

B. Responsibilities of the Chief Inspector is:

1. Responsible for the selecting, issuing, maintain performing RII personnel, establish and administer the Required Inspection Items (RII) system that complies with CASR and Company requirements.
2. Responsible for monitoring the Receiving Inspection and Shelf Life Limitations of materials and part use by the company to assure that they are in compliance with Company requirement, manufactures specification and CASR.
3. Responsible for the publishing of revision, distributions and control of company manuals applicable to the Maintenance records.
4. Review Company Manual for Technical Department

C. Authority of the Chief Inspector is:

1. To promote new capability as required.
2. To Issue, suspend, revoke Company Authorization
3. To approve/disapprove vendor.
4. Develop Yearly Training Program

D. Qualification of the Chief Inspector is:

1. Holds an AME license, or equivalent qualifications acceptable to the Director General.
2. Has had at least three years of diversified maintenance experience on similar types of Aircraft with which the operations are to be conducted, with an Air Operator or Repair Station, One year of which must have been as a maintenance inspector.
3. Knows the operations specifications and the applicable maintenance provisions of this part.
4. Has been trained for all training required according to Training Program.

The Chief Inspector is authorized to delegate his/ her duties to any qualified assistant as he/ she deems necessary; however, such delegation does not relieve him/ her from the overall responsibilities.

The Chief Inspector deputed to Technical Manager for temporary in charge when chief Inspector cannot perform his/her Duties and Responsibilities, i.e. On leave or as holder of Aircraft Maintenance Engineer License perform as duty engineer to maintain current license.

2.4.4. Chief Maintenance

Report to : Technical Manager

Scope : Carrying out the aircraft maintenance that cover daily maintenance, line maintenance, heavy maintenance and ground support equipment & store for provisioning of serviceable aircraft.

A. Duty of the Chief Maintenance is:

1. Direct supervise of all maintenance activities and availability of supporting equipment and tools in accordance with approved procedures and Report to Technical Manager.
2. Controlling daily planning maintenance activities and monitor the progress of each aircraft/article in the proper work procedures, which is should be followed by maintenance personnel.
3. Directing all maintenance personnel doing qualified work and observed safety precautions relevant to the functions for which they may be utilized.
4. Coordinate with Technical Support /Production Plan Control which related to work orders or task cards.
5. Coordinate with Procurement / Logistic in maintaining continuous flow of required material to prevent work stoppage.
6. Maintain the Tools/Equipment and other hangar facilities as a support function for aircraft maintenance.
7. Ensure that all of the Tools/Equipment is maintained in accordance with industrial standards and safety procedure.
8. Supervise the usage of the Tools/Equipment and Ground Support Equipment to ensure that all personal utilizing equipment follow correct procedures and or referred to the appropriate manual or other technical instruction.
9. Other duties as assigned by Technical Manager

B. Responsibilities of the Chief Maintenance is:

1. Coordinating and controlling the technical administration of his/ her department.
2. The efficiency operation of technical department and introducing systems and methods to increase productivity and quality.
3. Improvement capability of his/ her department including equipment and personnel capability (skill).
4. Responsible for project planning, setting targets and deliverables, making decisions in dealing business with the customer.
5. Is responsible for ensuring that all work on aircraft components is carried out to the standards approved by DGCA and also responsible for any corrective action resulting from the quality compliance monitoring.

C. Authority of the Chief Maintenance is:

1. Promoting maintenance people or change the position of the technician.
2. Has to do the balancing act of managing technical processes and teams along with using his technical skills to provide the necessary environment for project success.

D. **Qualification** of the Chief Maintenance is:

1. Hold AMEL in accordance with one of any type of the AOC capabilities, and qualifications acceptable to the Technical Manager.
2. Has had at least 3 (three) years of diversified maintenance experience on types of Aircraft with which the operations are to be conducted, with an Air Operator.
3. Knows the maintenance parts of the Company Maintenance Manual, Training Program Manual and the applicable maintenance provisions of this part.
4. Has been trained for all training required according to Training Program.

The Chief Maintenance is authorized to delegate his/ her duties by hiring qualified assistance as deems necessary. However, such delegation does not relieve him/ her from overall responsibilities in his/ her department.

The Chief Maintenance deputed to Technical Manager for temporary in charge when chief maintenance as holder of Aircraft Maintenance Engineer License perform as duty engineer to maintain current license.

2.4.5 Chief Technical Support (Engineering & PPC)

Report to : Technical Manager

Scope : Chief Technical Support is functioning as engineering and product planning control under the coordination of the department of engineering. This section serves as a support to the maintenance department for the recording, planning, reporting, scheduling maintenance, etc. as stated in CASR 135.369, CASR 135.367, CASR 135.705, CASR 135.363, CASR 135.373.

A. Duty of the Chief Technical Support is:

1. Planning job and creating scope of work order.
2. Estimating material, man hour and tools (internal and external) to comply with job requirements.
3. Developing job and task instruction.
4. Creating purchase requisitions and stock reservations for planned work.
5. Coordinating with Chief Maintenance, purchasing, store and supply and maintenance personnel.
6. Maintain essential records and files from which management reports are prepared and distributed.
7. Interpret Airworthiness Directives, Manufacturer's Services Bulletins and Letters, Engineering Publications, Maintenance Manuals and other data.
8. Ensuring that all applicable Airworthiness Directives (AD) are embodied and optional Service Bulletins (SBs) are reviewed for compliance and that records are kept of decisions with actions taken.
9. Coordinating scheduled maintenance, embodiment of ADs, replacement of service life limited parts and component inspection requirements.
10. Managing Technical Records and Technical Library/Publication.
11. Coordinating availability of work order, material, Tools/Equipment.

B. Responsibilities of the Chief Technical Support is:

1. Guaranteeing the correct revision status of the documentation.
2. Responsibilities include planning and coordination of all planned maintenance activities performed at the site.
3. Direct report to Technical Manager and Chief Inspector.
4. Responsible for availability of facilities appropriate to the planned work including hangars, workshops office accommodation, stores as applicable for the planned work
5. Responsible for availability of a working environment appropriate to the tasks being undertaken
6. Responsible for availability of tools, equipment and materials to perform the planned tasks
7. Responsible for availability of sufficient competent personnel to plan, perform, supervise, inspect and certify the work being performed
8. Responsible for availability of all necessary maintenance data as required by Part 145.109
9. Responsible for the implementation of the safety policy and human factor issues as well as reporting of un-airworthy conditions.
10. Responsible for supplying the necessary technical documents for customers and storage of the organization's technical records.
11. Responsible for the satisfactory completion and certification of all work required by contracted operators/customers, in accordance with the work specification.
12. Responsible for ensuring that the organization's procedures and standards are complied with when carrying out maintenance.
13. Maintain the calibration records of company's precision tools and coordinate their re-calibration when due.
14. Implementing of Continuous Analysis and Surveillance Program

C. Authority of the Chief Technical Support is:

1. To improve work force productivity and quality by anticipating and eliminating potential delays through planning, scheduling, and coordination of maintenance resources, parts, materials, and equipment access

D. Qualification of the Chief Technical Support is:

1. Must be over 23-years of age.
2. He/ she must understand read and write English.
3. Has had at least 3 (three) years of diversified Technical Support or Production Plan Control or Engineering experience on types of Aircraft with which the operations are to be conducted, with an Air Operator or A.M.O.
4. Knows the maintenance parts of the Company Maintenance Manual, Training Program Manual and the applicable maintenance provisions of this part.
5. Has been trained for all training required according to Training Program.
   In case of lengthy absence, the Technical Support will surrender the duties and responsibilities to Technical Manager, however such delegation shall not relieve him/her of the overall responsibilities.

2.4.6 Engineer

Report to : Chief Maintenance

Scope : To execute all duties as assignment from Chief Maintenance in aircraft maintenance job according to aircrafts Maintenance Program and limitations.

His duties and responsibilities are:

1. As an authorized LAME, he will sign off the maintenance release and RTS.
2. Maintaining the readiness of all GSE, updating technical records and documentations.
3. Carry out all of the maintenance activities assigned by Chief Maintenance.

Qualifications:

1. Holds a valid AMEL with current aircraft type rating.
2. Has been trained for all training required according to Training Program.

2.4.7 Mechanic

Report to : Chief Maintenance

Scope : To execute all duties as assignment from Chief Maintenance in aircraft maintenance job according to aircrafts Maintenance Program and limitations.

His duties and responsibilities are:

1. To carry out the maintenance schedule and job assignment during his duty period assigned by Lead Engineer or Engineer (LAME).
2. To assist engineers in performing maintenance task.
3. To conduct any other additional duties as assigned by his/her superior.

Qualifications:

1. Holds basic mechanic certificates issued by DGCA (A1, A2, A3, A4, C1, C2, C4) according to its type of aircraft.
2. Has been trained for all training required according to its Training Program.

Qualifications:

1. Hold AMEL in accordance with at least one of any type of the aircraft operated by the company with minimum 3 (three) years' experience.
2. Has been trained for all training required according to Training Program.

2.4.8 Storeman

Report to : Chief Technical Support

Scope : Coordinating and control administration activity of receiving, shipping, storing goods, and incoming out going goods from and to store to ensure security, accuracy of goods and data.

His duties and responsibilities are:

1. Coordinate the necessary resources regarding Stores as such that they are adequate to support the necessary activities and that the related inquiries are followed up by appropriate means.
2. Coordinate related inquiries with Procurement, and Maintenance personnel or other users.
3. Maintaining a storage area capable of receiving, segregating, storing and transporting to the required parts
4. Arranged for supplied parts to be properly identified and segregated. Keep current lists of such parts.
5. Developing proper storage facilities for chemicals and/or shelf-life materials in identifiable, secured and temperature controller locations according to manufacturer recommendations, having labels to identify the contents, the physical characteristic and life duration on each shelf life material.
6. Checking the shelf-life for expiration dates every month. Develop a warning system for their identification and withdrawal of such material from the store.
7. Segregating flammable and hazardous material in distance from the other material.
8. Receiving inspection with authorization from Chief Inspector
9. To conduct any other duties assigned by Technical Support.

Qualifications:

1. Has been trained for all training required according to Training Program.

3.1. GENERAL

3.1.1 Reference

CASR 135.361,135.365, 135.367,135.369, 135.377, 135.379, 135.380, 135.380.a

3.1.2. Introduction

1. All aircraft operated by the Company will be maintained under CASR 135 Subpart L and CASR 135.701 through 135.709.
2. The Company is primarily responsible for:
   a) airworthiness of its aircraft, including airframe, aircraft engines, appliances, and associated parts thereof.
   b) All maintenance, preventive maintenance, and alteration of the Company aircraft including airframes, aircraft engines, appliances, emergency equipment, and associated parts thereof shall be maintained in accordance with current manufacture Services manual, instruction, Company Maintenance Manual and the applicable CASR.
3. The Company may make arrangements with other persons for the performance of maintenance, preventive maintenance, or alterations as provided in the Company Maintenance Program and maintenance manual. However, this does not relieve the Company responsibility.
4. The Company's personnel who hold an appropriate rating may approve aircraft, airframe, aircraft engine or appliances for return to Services after maintenance, preventive maintenance, or alterations, that it has performed by PT Smart Cakrawala Aviation. However, in the case of major repairs or major alteration the work must be accomplished in accordance with DGCA approved technical data. DGCA Form 43-337 will be completed to the document of repairs/alteration.

3.2. MAINTENANCE POLICY

3.2.1. General

1. All types of aircraft operated by Company including engines, instruments, and accessories will be maintained in a continuous state of airworthiness by a program of continuous and corrective maintenance that will secure the maximum level of safety. Established maintenance, inspection, and overhaul periods will be in accordance with Maintenance Program of each aircraft type. The workmanship and procedures employed by maintenance personnel will be of high quality and in accordance with manufacturer's Services manuals; DGCA approved and accepted technical data and DGCA technical publications.
2. The Chief Inspector is responsible for complying with the standards of mechanical airworthiness. The satisfactory performance of inspections in accordance with the approved procedures will be the responsibility of the personnel assigned to accomplish these checks or inspections. All maintenance performed on Company aircraft will be subject to "spot checking' under the jurisdiction of the inspection unit and shall be checked periodically for quality and completeness.

3.2.2. Schedule Maintenance

This procedure will describe the flow chart how PT. Smart Cakrawala Aviation will be maintain the company's aircraft.

1. Technical Manager will issue the work order (Form: SCA/MTC/030) as an instruction of accomplishment of the maintenance, preventive maintenance and alteration. The work order will be prepared by Engineering & PPC.

   Engineering & PPC also responsible to prepare Work Package which are consist of Maintenance Task Sheet, Routine Card (Form : SCA/MTC/047), Inspection Card (Form : SCA/MTC/048)(to record if any defect found during maintenance), Material and Tool List (Form : SCA/MTC/052) required, Summary Inspection Items (Form : SCA/MTC/050) , Aircraft Check Work Summary (Form : SCA/MTC/051) and Certificate Return to Service (Form : SCA/MTC/049).

   Note: The Job Order and Work Package must be completed prepare before Inspection due and Materials must be available.
2. Chief Inspector will verify the work order attachment (if any) such as task card / work sheet for the completeness manual reference in accordance with approved Maintenance Program, Aircraft Maintenance Manual, Airworthiness Directive, Services Bulletin, etc.
3. After check all, return back to Engineering & PPC for processing to distribute to Technical Department for preparing man power to perform that inspection. Engineers are responsible for accomplishment of the Work Order (WO).
4. The accomplishment of Task Card/Work Sheet will be carried out by authorize personnel and recorded in the Aircraft Maintenance and Flight Log.
5. Chief Inspector then will verify accomplished task cards to make sure that the Task Card are completed and signed by authorized personnel. The record will be filled in Technical Department in such manner.
6. Maintenance work package are compiled by Engineering & PPC based on the approval maintenance schedule. The final package will include applicable AD's, Service Bulletins, Engineering Instruction, Modifications or any other out of phase work.

7. Sufficient numbers of suitably trained personnel will be allocated to perform the Maintenance Work Package.
8. The inspection shall be certified on the Task card provided in the package.
9. All Inspection finding shall be recorded in the Inspection Card (IC) Form SCA/MTC/048 and to be rectified and certified in IC. The IC will be controlled by Engineering & PPC. Notable Defects must be reported to Chief Inspector.
10. All parts and materials should be from approved sources and shall have appropriate tags.
11. Engineering & PPC shall be responsible for the control of all documents that forms part of the maintenance check package and to ensure that all documents are accounted for and appropriately certified prior to declaring completion of check.
12. The complete check package shall be forwarded to Engineering & PPC to update the aircraft records and for safe keeping as Technical Records for the aircraft.
13. Engineering & PPC of work on aircraft and its associated equipment shall remain in focus at all times during maintenance to ensure timely completion of work to meet deadline.

3.2.3. Un-schedule Maintenance

General

During operation, the airplane may encounter conditions that can result in forces being put on it that make it necessary to complete unscheduled maintenance.

These conditions are given in the following section. When the flight crew supplies any of these conditions in a report, complete a visual inspection of the airframe and specific inspections of components and areas where an effect is possible.

The inspections are completed to find and make an analysis of the depth of damage in local areas where damage can be seen, and to the structure and components adjacent to the area of damage.

When it is required to perform unscheduled maintenance, the inspection will be carried out in accordance with approved aircraft inspection program.

1. Technical Department, in this case is Engineering & PPC Section coordinate with Material / Store section for availability material to be used. And then the Engineering & PPC section will produce Work Order and Work Package.
2. Distribute Work Order and Work Package to Inspection Unit for verifying. Then return back to Engineering & PPC.
3. Distribute Work Order and Work Package Technical Department to prepare manpower for performing it.
4. When it has been accomplished, the engineer shall re check all paper work to ensure that has been completed, and then fill completely the maintenance action on Work Order, and then;
5. Chief Inspector then will verify the Work Package to make sure that the accomplishment of Work Sheet is completed and signed by authorized personnel. The record will be filled in Technical Department in such manner.

3.3 MAINTENANCE PROGRAM (CASR 135.367)

This section provides guidelines for the preparation of Maintenance Program that meets the requirements of CASR Part 135.367. The section describes implementation of the program by PT. Smart Cakrawala Aviation.

1. PT. Smart Cakrawala Aviation is authorized by its Authorization, Condition and Limitation to maintain airplanes with the Company's approved Maintenance Program. This program combines the functions of inspection and maintenance to fulfil the total maintenance needs of Smart Cakrawala Aviation. The DGCA Indonesia rules requires PT. Smart Cakrawala Aviation to establish a maintenance program adequate to perform the maintenance, preventive maintenance, repairs and alterations, and an inspection program adequate to perform the required inspections.

2. The Company's Approved Maintenance Program are a compilation of an individual maintenance and inspections. The Maintenance Program consists of the following elements.
   a. The applicable to the company airplanes and the current revision of Inspection Program.
   b. The company's airplane Scheduled Maintenance and inspection Programs;
   c. The company's airplane Unscheduled Maintenance Program;
   d. The overhaul and repair systems for company's airplane, systems, engines and components;
   e. The company's airplane inspection Programs for airframe and engine;
   f. The company's airplane Required Inspection Items Program;
   g. Aircraft Instrument and Avionic bench test interval.

3. The Inspection Unit is responsible to prepare and control updating of Aircraft Maintenance Program in accordance with current manufacturer recommendation as well as authority regulation for all type of aircraft, then ensures that maintenance, preventive maintenance, repairs and alterations are performed in accordance with the current approved Maintenance Program, DGCA regulations and the other PT. Smart Cakrawala Aviation Policies and Procedures Manual. Chief Inspector is responsible for the enforcement and monitoring of the accomplishment of the Maintenance Program.

3.4 COMPONENT OVERHAUL POLICY

The various aircraft components and appliances will be overhauled at or before the time required by the Company's Maintenance Program. The responsibility for scheduling the accomplishment of the overhaul at or before the time limit and will rest with the Engineering & PPC section. The actual accomplishment will be performed by the manufacturer or other DGCA approved overhaul/repair facilities. All work will be performed in accordance with the manufacturer specifications and/or DGCA accepted data. The Company will provide the contracted maintenance organization with instructions and/or technical data for the repair and overhaul of parts.

3.5 AIRWORTHINESS DIRECTIVE AND SERVICES BULLETIN

3.5.1. Background

Airworthiness Directives (AD's) are issued by the DGCA Indonesia under the provisions of CASR Part 39 when an unsafe condition exists and that condition is likely to exist or to develop in other aircraft, aircraft engines or appliances of the same type design. AD's mandate corrective measures that must be accomplished in a specified period of time. These corrective measures may include one-time inspections, repetitive inspections at specific intervals, prescribed repair actions or modifications which may or may not terminate special requirements of the A.D. To operate an aircraft, engine or appliance to which an A.D. applies, except in accordance with the requirements of the directive, is to be in "non-compliance" with the CASR's.

To identify the methods by which airworthiness directives, mandatory service bulletin and other mandatory instructions are evaluated, controlled and issued to production line for embodiment within the compliance period.

3.5.2. Scope

This section describes PT. Smart Cakrawala Aviation actions in the processing of newly issued DGCA's AD's and the actions required when acquiring new or used aircraft.

Airworthiness Directives (AD), orders applicable to aircraft, engines or its equipment issued by DGCA or other relevant aviation authority for the continued airworthiness of the aircraft.

3.5.3. Procedure for Airworthiness Directives Accomplishment

1. Chief Inspector ensures all applicable AD(s) are accomplished in accordance with the directions given in each AD. Chief Maintenance will schedule the AD accomplishments. The required Material will prepare if there are any material requirements.
2. AD can be signed off by the following personnel:
   a. Company authorized Engineer / Inspector with proper rating.
   b. Persons employed by an Approved Maintenance Organization (AMO) and authorized by the AMO to work on the equipment being repaired, overhauled or serviced.
3. Airworthiness Directives will be analyzed by the Chief Inspector and will determine which AD will be accomplished and the appropriate action will be taken at that time.
4. Applicable AD's, mandatory service bulletins and mandatory instructions or orders shall be maintained by Engineering & PPC section.
5. All modification must be sentenced by Engineering & PPC in consultation with Technical Manager and Chief Inspector.
6. Where AD's mandatory MODs and other mandatory orders have to be incorporated with short lead time, purchase of the modification list may be classified as AOG to expedite purchase.
7. For each AD, Work Order shall be completed. The Work Order is intended to be a sentencing document that clarifies what is required to comply with the AD.

8. The Work Order shall include the main requirements of the AD, and specifies the thresholds, action documents and responsibilities of respective departments. Relevant information and discussion shall be included in the Engineering Instruction as notes.
9. Repetitive inspections of AD's that do not have terminating action may be incorporated into the maintenance schedule to ensure control and timely compliance. These controls contained in the Technical Directive Compliance (AD / SB Status Record) on the form: SCA/MTC/032.
10. Engineering & PPC section shall be responsible to plan and ensure embodiment of AD's, and any mandatory order prior to the due date.
11. Approval holders are not allowed to defer any task that forms part of an AD unless approval is obtained from DGCAs through Chief Inspector.
12. All AD's and SB's original certified documentation shall be kept by Engineering & PPC section for records.

3.5.4. Airworthiness Directive Compliance Record (CASR 135.380.a.)

Each aircraft operated by Company will have an up-to-date Airworthiness Directive Compliance Record, which will be in a form or manner that contains all of the elements of AD Compliance Form. The AD Compliance summary report may be used to record either compliance of the Aircraft AD(s) or the engine AD(s).

In addition, a record system will be utilized to track Airworthiness Directives, which have a time control or repetitive compliance requirement.

1. The AD Compliance Record will be kept as part of the aircraft permanent records.
2. The following steps shown below illustrate the routing and review process for all Airworthiness Directives.
   a. The DGCA issues and published the AD, by DGCA website.
   b. Technical Manager and Chief Inspector receive and review the AD for applicability and urgency and then distribute it to the concerned section for further review and implementation. And the results of evaluation of the Airworthiness Directive (AD), stated in the form: SCA / MTC / 032 - Results of the evaluation of AD / SB Form, which will separate the status of the Airworthiness Directives.
   c. PT. Smart Cakrawala Aviation will plan and route applicable AD(s) through the applicable section to obtain timely handling and accomplishment.
   d. Completed AD(s) and associated, required paperwork are reviewed then verified by Chief Inspector for accuracy and completeness.
   e. The completed of accomplishment AD report is forwarded to the Engineering & PPC section where the data is transferred to the Airworthiness Directive / Service Bulletin Compliance Record for repetitive and one-time action list Form SCA/MTC/032.
3. AD(s) applicable to engines will be treated the same way as the Aircraft AD and the necessary record(s) shall be entered in the engine logbook by Engineering & PPC section. An Airworthiness Directive with a time control or repetitive compliance requirement will be tracked in the same manner as an aircraft AD.

4. Compliance data of AD(s) applicable to other components will be kept with those components records (Form SCA/MTC/022 Serviceable tag) .

3.5.5. Services Bulletins

1. Aircraft Engine and Component Services Bulletins/Letters will be initially reviewed by Chief Inspector, and any immediate action necessary will be initiated at that time. If no immediate action is considered necessary, it will be so noted on file copy of the SB file in the files.

   And the results of the evaluation of the Service Bulletin, stated in the form: SCA / MTC / 032 – Results of the evaluation of AD / SB Form, which will separate the status of the Service Bulletin.

2. Services Bulletins which have been designated "No Action", will not necessarily need further review.
3. The Technical Manager will decide an action required for Services Bulletins that are designated TBD - "To Be Determined". The action will be taken based on the requirements of the Company's operations.

   Work Order shall be completed. The Work Order is intended to be a sentencing document that clarifies what is required to comply with the Services Bulletins.

4. Aircraft Manufacturer Services Bulletins will be logged, and this log shall be used as the control of the actions taken of the Services Bulletin.

3.6. TECHNICAL PUBLICATION

3.6.1. General

PT. Smart Cakrawala Aviation will maintain a complete publication of current technical data on paper or soft copy pertaining to the type of equipment being operated by subscribe to manufacture or supplier. This data will be made available for all maintenance and inspection personnel. A complete publication will be kept at the office of Chief Inspector.

3.6.2. Current Revision

1. The Chief Inspector is responsible for ensuring all technical publication relating, to maintenance are kept current through revisions, either initiated by Company, vendors, or manufacturers.
2. Procedures must be followed exactly as stated until the procedure is changed.
3. No changes shall be made in the Company manual without prior coordination with the DGCA.
4. Internal Audit will be conducted by Quality to make sure that all document at library update and in good condition.

3.6.3. Ownership

All manuals are the property of Company. They may not be loaned or given to any persons outside the company for any reason other than the maintenance of company operated aircraft, nor may they be copied or reproduced without express written approval of the Director.

3.6.4. Maintenance Publications

1. Publications applicable to a particular type of aircraft.
   a. Company's Maintenance Program.
   b. Aircraft Status Report and Maintenance status due.
   b. Minimum Equipment List
   c. Aircraft Maintenance Manual, Engine Maintenance Manual and Propeller Manual.
   d. IPC (AMM, EMM & PMM), Wiring Diagram, Overhaul Manual, etc.
2. Company will use the Company manuals and/or Vendor/ Manufacturer manuals to maintain each type of aircraft operated, which will contain procedures for all Special inspections (i.e. lightning strike, hard landing, etc.)
3. During Maintenance work process should be use current and update revision Company manuals, Manufacturer manuals, wiring diagram manual, overhaul manual, propeller manual and or vendor manual.

3.7. EMERGENCY SERVICING AND MAINTENANCE

3.7.1 General

1. The use of the word emergency servicing or maintenance in this case means emergency Services at stations where there are no maintenance employees of Company. All work accomplished by any approved sub contracted maintenance organization will be in accordance with the Company's Maintenance Program.

   The pilot will be responsible for:

   a. Parking the aircraft properly, installing wheel chocks, and also installing or applying parking brake, if applicable.

   b. In the event that servicing is required, ensuring only fuels and oils are selected that can be identified as being of the equivalent standards and quality as those obtained under contract and fuel tank sumps must be drained prior to take-off.

   c. If maintenance is required, contact the Dispatch to advise/explain the situation.

   The Aircraft Maintenance Supervisor will be responsible for:

   a. Contact the PIC or Dispatcher and advising them with the status of the aircraft, what maintenance action is arranged for and an initial estimate when the aircraft will be ready for Services.

   b. Directing all maintenance required to correct the discrepancy. This will include faxing of all pertinent sections of the CMM and other related manuals to the Contractor as necessary. The Technical Department will return the aircraft to Dispatch when the aircraft is ready for Services.

   c. Ensure the repair work or replacements are made only by qualified Engineer, DGCA Certified Repairmen, or qualified and rated Approved Maintenance Organization.

2. If any repairs or replacements are made, the following entries will be made on the aircraft flight and maintenance log sheet.

   a. An adequate description of the work performed.

   b. The name of the individual, repair station, manufacturer, or air carrier performing the work.

   c. The signature of the person approving as airworthy the work performed and authorizing the return of the aircraft or component to Services. If the person is a certificated mechanic or repairman, his certificate number or the repair station number must also be entered on the log sheet

   d. The date of completion and the station where the work was performed.

   e. The part name, position, and serial numbers listed on components removed and replaced.

3. Test flights (if required) will be conducted in accordance with flight test policy, when conducting the test flight must use form SCA / MTC / 027- Flight Test Form and send this form after completion of flight test to Chief Inspector.

   Note: Flight Test Form may be used format in Aircraft Maintenance Program or Manufacture Manual.

3.7.2 Emergency Equipment, Policies & Responsibilities

1. Emergency Equipment carried on-board Company operated aircraft must be in accordance with current Civil Aviation Safety Regulations and/or those Specifications established by the Company.
2. The Type and Quantities of Emergency Equipment will depend on type of operation (Terrain, type of Cargo, number of Passengers, etc.) the aircraft is assigned.

3.8. CANNIBALIZATION/ROBBED PART PROCEDURES

3.8.1. General

Robbing or cannibalization of a part or parts from one aircraft or engine for installation on another aircraft or engine, should only be used as a last resort and only after the following steps have been taken:

a. It has been determined that the part is Nil in Stock (N.I.S) and definitely not available in Company Stores.

b. No other company which have been contracted for possible loan of part.

c. Check possibility of having the part repaired and returned without incurring a delay.

3.8.2. Procedures

The following procedures will be complied with:

A. Permission received from Technical Manager and after coordinating with Chief Inspector.

B. A check will be made with Maintenance Records to ensure that the unit being cannibalized has at least sufficient time remaining to make all subsequent trips and return to Main Base without exceeding the unit's approved overhaul time. Engineering & PPC section will make a special form for cannibal parts or components (Form: SCA/MTC/034), for the item installed unit to ensure that the unit is removed within its approved overhaul period.

C. A record of the removal will be made in either of the following ways:

1. For parts removed from in-Services aircraft, an entry will be made in the Discrepancy Column of the next outbound aircraft log page from which the part was cannibalized stating S/N off, nomenclature P/N, position of unit, cannibalized for A/C and signed by engineer accomplishing work.
2. For parts removed from Maintenance Status Aircraft, an entry will be made on the Maintenance Report or equivalent contractor's form and reinstallation included as part of the maintenance check.
3. For parts removed from spare engines, an entry will be made on the Maintenance Report or equivalent contractor's form and attached to the engine Serviceable (Form SCA/MTC/022) or unserviceable tag (Form SCA/MTC/032).

3.9. COMPANY MAINTENANCE FACILITIES

This section will describe how PT. Smart Cakrawala Aviation performs maintenance / inspection according to CASR 135.365(a) and CASR Part 145.

3.9.1. Maintenance Base Provisions.

Base, line and charter flight station requirements:

A. **The Maintenance** Base will be maintaining the company aircraft and equipment in an airworthy condition at all times. Adequate facilities and equipment are provided to properly perform the work to be accomplished.

B. **Line Maintenance**: Scheduled and/or Unscheduled checks that contain servicing and/or inspections that do not required specialized training, equipment or facilities e.g.: preflight, daily inspection, defect rectification and other inspections mentioned in Maintenance Program (MP), which locations are following the aircraft line operation stations.

C. **Other Station**: Scheduled and/or Unscheduled checks that contain servicing and/or inspections that do not required specialized training, equipment or facilities e.g.: preflight, daily inspection, defect rectification and other inspections mentioned in Maintenance Program (MP), which locations are following the aircraft line operation stations for short term period.

3.9.2. Maintenance Facilities & Equipment Ref to CASR 135.365(a).

Facilities for properly performing the maintenance, preventive maintenance, or alterations of articles or the specialized services for which it is rated. Facilities must, depending on Capability of maintenance include the following:

a. Sufficient work space and areas for the proper segregation and protection of articles during all maintenance, preventive maintenance, or alterations.
b. Segregated work areas enabling environmentally hazardous or sensitive operations such as painting, cleaning, welding, avionics work, electronic work, and machining to be done properly and in a manner that does not adversely affect other maintenance or alteration articles or activities.
c. Suitable racks, hoists, trays, stands, and other segregation means for the storage and protection of all articles undergoing maintenance, preventive maintenance, or alterations.
d. Space sufficient to segregate articles and materials stocked for installation from those articles undergoing maintenance, preventive maintenance, or alterations.
e. Ventilation, lighting, and control of temperature, humidity, and other climatic conditions sufficient to ensure personnel perform maintenance, preventive maintenance, or alterations to the standards.

3.9.3. Capabilities

A. According to the personnel qualification, facilities, tools and equipment owned, PT. Smart Cakrawala Aviation is authorized to perform the following maintenance works, for:

1. Refer to Scope of Work of PT. Smart Cakrawala Aviation which consist Inspection capability.
2. Self-Internal Evaluation (Form No. SCA/MTC/062) every Maintenance Base's PT. Smart Cakrawala Aviation (see Appendix D)

B. All maintenance works which out of PT. Smart Cakrawala Aviation capabilities will be performed / subcontracted to Approved AMO as listed in the Subcontractor list in form: SCA/MTC/045.

3.9.4. Maintenance Performance

Under the provisions of Part 135 (Subpart L) as stated in the PT. Smart Cakrawala Aviation Operation Specification, it is the responsibility of PT. Smart Cakrawala Aviation to develop a Maintenance Program to ensure a high safety standard for licensed aircraft maintenance engineers, inspectors, and other maintenance personnel employed by and contracted by PT. Smart Cakrawala Aviation. This CMM, when implemented, fulfills these requirements.
The CASR's require maintenance, preventive maintenance, alterations, and repairs to be performed according to PT. Smart Cakrawala Aviation's CMM, Maintenance Program.
One purpose of this Company Maintenance Manual is to provide guidance to maintenance personnel and management, as required by the CASR's. Surveillance determines whether learning has occurred, and is administered throughout the program

a. Self-Evaluation

Self-Evaluation conduct by Chief Inspector of PT. Smart Cakrawala Aviation to obtain Maintenance capability with evaluated data list of

- Hangar Facilities
- Personnel
- Manuals
- Tools
- Materials

The PT. Smart Cakrawala Aviation Maintenance Base located at Singkawang, Kalimantan Barat comprise the Maintenance base Hangar in Smart Semelagi Airport, Singkawang.
PT. Smart Cakrawala Aviation authorized maintenance capability of servicing, pre-flight and daily inspection all of maintenance station. Higher capability of servicing, preflight check and daily inspection will be listed on scope of work. Self-evaluation carried out every year or if needed new maintenance base or aircraft type.

b. Scope of Work

The scope of work can be performed at each of the maintenance station describe as maintenance capability. The list of company's capabilities is in the Appendix D in this manual.

3.9.5 WORK TO BE PERFORMED AT OUTSIDE MAINTENANCE BASE FACILITIES

Base on PT. Smart Cakrawala Aviation's nature operation, PT. Smart Cakrawala Aviation's aircrafts may be far away from its base maintenance operation, therefore to the maintenance other than "Line Maintenance" must find the closest hangar which criteria and facilities meet the requirements in the Continuous Maintenance Program (CMP). Before carrying out the maintenance PT. Smart Cakrawala Aviation must notify DGCA in written format and report the result when completed.

If the closest hangar doesn't meet the criteria and facilities as refer to Continuous Maintenance Program (CMP), PT. Smart Cakrawala Aviation may propose approval to DGCA for any schedule inspections which need hangar outside maintenance base facilities.

The procedure to perform maintenance at outside of maintenance base facilities are:

1) Technical Manager shall prepare the hangar / facility for the availability at the time required.
2) Chief Inspector shall prepare Internal Self Evaluation according to the type of maintenance that will be performed base on its capability of facility, tools, equipment, technical data and man power.
3) Safety and Quality Department shall conduct facility inspection, making report and raise HIRA regarding to safety of the maintenance that will be performed.
4) Technical Support and Storeman will provide all parts, materials, equipment, tools and technical data needed at the location at least 1 (one) day before the maintenance begin.
5) Chief Inspector shall make a formal request to DAAO for approval with the supporting data as attachment such as; statement of hangar availability from the hangar owner, Self-Evaluation, HIRA and other supporting data.
6) During maintenance, Chief Inspector / Inspector must be in place to observe and ensure that the job being perform are according to related procedure and regulation. When necessary, DAAO Inspector (PAI) may be in place as well, based on his / her discretion.

3.9.6 TOOLING AND EQUIPMENT

Tooling and Equipment are a primary supporting facility in order to run aircraft maintenance activity smoothly and perfectly, besides man powers. Therefore, it should be considered as important items which to be used for aircraft maintenance works purposes, and that only Engineers/Apprentices/ Fitters/Assigned persons, may use it to carry out the jobs. For any usage other than an aircraft maintenance purposes and all related jobs, is actually prohibited, except within the permission of the Technical Manager.

The usage of Tooling and/or Equipment shall be recorded by the authorized person.

Keeping of Tools and Equipment (completeness, cleanliness, tidiness) will be under the responsibility of the Engineer in charge. General Tools and Ground Support Equipment available in PT. Smart Cakrawala Aviation controlled and monitored on the numbers and conditions every moment by Chief Maintenance in form SCA/MTC/028.

Ground Support Equipment, Special Tools and General Tools, Machines/Vehicles have to be in the good condition/shape, properly functioning, neat and clean also painted uniformly/marked for easy recognizing / professional looks, and placed in the perfect area provided for that, avoid sun-burns and rain's water onto aircraft jacks and other sensitive equipment.

The responsibility for maintaining those facilities as mentioned above will be under Chief Maintenance. All Damage/malfunctioning/calibration expired Tools/Equipment shall be recorded and reported by Chief Maintenance to the Technical Manager for further recover action or provisioning. Yet, also the duty of the Chief Inspector to control and upkeep/revalidate all calibrated Tools / Equipment.

3.10. MINIMUM SPARE EQUIPMENT, LINE STATIONS - MANUALS, COMPONENTS, ACCESSORIES, INSTRUMENTS, RADIO EQUIPMENT.

A minimum supply of spare components, accessories and instruments and radio equipment will be supplied to the line stations for replacement of defective units which are necessary for flight continuation. Technical Manager will determine the items and quantity that each station will need, depending on the type of aircraft utilizing station.

It will be the responsibility of the station maintenance personnel to maintain their stock in an orderly manner and to reorder as necessary. ***Aircraft Spare Parts Kit / Fly Away Kit (Form: SCA/MTC/035)***

a. Each aircraft operation will require that a spare parts kit be on board before departure to any destination that does not have approved maintenance facilities and parts.

b. On occasion, aircraft operated on domestic routes may require a spare parts kit due to unusual circumstances.

c. The contents of the kits are Portable GPU and will be determined by the Technical Department based on the operational need.

d. Engineer in charge (EIC) must initiate the request spare parts kit (flyway kits) is required to support operations at the out base, and coordinating with the storage person to prepare and make a list of spare parts on the form: SCA/MTC/035

e. EIC after duty off from out base so must be report all spare parts that used during duty and that is recorded in form Fly Away Kits Listed, and order to coordination with storage person to completing in accordance with the rules in PT. Smart Cakrawala Aviation.

3.11. AIRCRAFT DOCUMENT REQUIREMENT (CASR 91.25)

Before being released for flight, all aircraft shall be:

1. Equipped with a current airworthiness certificate or a document approved by DGCA for purposed of Certifying the Airworthiness of Aircraft.
   - f. Certificate of Aircraft Registration.
   - g. Certificate of Aircraft Airworthiness.
   - h. Copy of Aircraft Insurance.
   - i. Flight Manual.
   - j. Minimum Equipment List.
   - k. Current Weight & Balance.
   - l. Compass Swing Report.
   - m. Noise Certificate.
   - n. Certificate Return of Service (Form: SCA/MTC/049)
   - o. ACL/Opspec.
   - p. Aircraft Radio Permit.
   - q. Deferred Discrepancy Record (HIL/DMI)
   - r. True Copy of Aircraft Operation Certificate.
2. Designated airworthy by Maintenance or Inspection personnel as required.

3.12. REQUIRED INSPECTION ITEMS PROGRAM (CASR 135.371)

3.12.1 General

1. Certain Items of maintenance and alteration are designated as Required Inspection. Items Required Inspection Items are defined as those maintenance and alteration items which, if not performed properly, or if improper parts or materials are used, could result in a failure, malfunction or defect will be endangering the safe operation of the airplane.
2. The primary objective of PT. Smart Cakrawala Aviation aircraft maintenance is responsible for ensuring the aircraft is airworthy in highly standard and in accordance with CASR. The assurance of continuous airworthiness under the observance of appropriate aviation regulation is a prime objective.

   To ensure that airworthiness of aircraft is properly maintained, the individual approved Aircraft Maintenance Program shall be used and implemented.
3. The Required Inspections Items Program contains a listing of Required Inspection Items and the methods, procedures limits and standards necessary to comply with such inspections.
4. The program also contains PT. Smart Cakrawala Aviation policies and procedures for handling Required Inspections, including countermand of inspector decision, procedures to prevent personnel who performed the maintenance or alteration work from also performing the required inspection of that work, and procedures for turning over inspection.
5. The RII's is marked with state "STAMP/SIGN RII" in inspection sheet .

3.12.2 Required Inspection Item Procedures

a) All Required Inspection Item should be conducted by the authorized personnel.
b) Authorized personnel who perform the required inspection should be under the supervision and control By Chief Inspector.
c) Required Inspection Item is carried out by inspect the item after completion of work.
d) In case of a Required Inspection Item could not be performed right after completion of work due to some of the item was hidden, Required Inspection Item is carried out during the assembly stage.
e) RII Task Card Perform carried out by Authorized Engineer then inspect by Authorized Inspector appointed and approved by Chief Inspector. Item non-RII items may be released for return to service by person who performs the work, ex.: preflight, daily or other inspection, which the items do not identify as RII items.
f) Each Required Inspection Item will be specifically identified by "RII" on every work sheet/ form or work card/ task card.

NOTE: The individual performing a required inspection may be the employees of an Approved Aircraft Maintenance Organization, in which case both certifications will be made on behalf of the approved organization.

No person may release required inspection if he performed the items of work required to be inspected.

3.12.3 Persons Authorized to Perform RII-Requirements (CASR 135.371)

1. Qualifications.

a. An RII inspector is an engineer who has the appropriate AME license, qualified, experience, good judgement, authorized and properly trained considered necessary to perform inspections on that Required Inspection Items (RII) for which he has been given specific inspection authority.

b. Each individual designated by the Chief Inspector is responsible directly to the Inspector when performing an inspection of a "Required Inspection Item".

c. Chief Inspector will maintain a current listing of qualified RII personnel who are authorized to perform Required Inspections. The list of personnel authorized to perform RII (Form: SCA/MTC/059) will include RII personnel name, occupational title, and type of aircraft / engine that the RII personnel is authorized on, and any inspection limitations imposed.

d. PT. Smart Cakrawala Aviation recognizes that employed by Approved Maintenance Organizations are qualified to perform Required Inspections on its aircraft and according to its ratings or equivalent requirement as stated in this manual and authorizes to perform such inspections. PT. Smart Cakrawala Aviation will not maintain a listing of, or issue authorization forms to the Approved Maintenance Organizations, but it is the responsibilities of the Chief Inspector to review or evaluate that the RII personnel employed by the sub contracted organization/Maintenance Repair Organization is qualified to perform the work on PT. Smart Cakrawala Aviation aircraft.

2. Duties

a. RII Inspectors will be required to inspect those Required Inspection Items assigned to determine airworthiness compliance with regulations and to accept or reject the work of others on those items.

b. While acting in the capacity as an RII inspector, an individual cannot inspect his own work.

c. If RII items are to be inspected away from base, the following procedure will be followed. An RII authorized inspector will be dispatched to the aircraft. The authorized inspector may then employ an appropriately rated engineer, instruct him in accordance with the manual and allow the engineer to perform the work. The Rll inspector may then inspect the RII item for compliance.

3. Authorization

a. Candidates for RII Personnel Authority who are recommended by the Technical Manager must submit to the Chief Inspector supporting documents including a resume of work experience and a copy of formal training records.

b. The Chief Inspector will review each applicant's records, training, and other qualifications. If the applicant is qualified, the Chief Inspector will determine if any inspection limitations are needed, and then issue the applicant a

Company Authorization Stamp and Number in Company Authorization Card (form: SCA/MTC/031).

4. Revocation of Authorization

a. The Required Inspection Item Authorization will be revoked if the Inspector's employment is terminated.

b. Authorization will be revoked if the Inspector does not keep his qualifications current, or if, in the opinion of the Chief Inspector, the Inspector does not fulfill his duties and responsibilities professionally. It is the responsibility of the Authorized Inspector to notify Chief Inspector when any change of status occurs.

3.12.4 Buy Back Inspection (Re- Inspection of RII)

All discrepancies or rejection of required inspection item found during aircraft maintenance and flight operations, which fails under the category of RII shall be re-inspect by Inspector.

All inspection findings written up during hangar checks which fall under the category of RII must be identified as **"RII"** and upon accomplishment of the rectification must be re-inspected by Inspector.

All inspection findings written up during line checks (Pre-flight, Transit or Daily check) which fall under the category of REPAIR must be identified as "RII" and upon accomplishment of the rectification must be re-inspected by Inspector.

At line maintenance locations the maintenance supervisory personnel may release the inspection item. In such cases, entry will be made in the AFML to the effect that an item was bought back by a maintenance supervisor.

3.12.5. Standards and Limits of RII

To assure them that all work on Required Inspection Items (RII's) are accomplished properly; The Chief Inspector or supervisory personnel who perform the inspection of RII must consult all manufacturers' publications, engineering orders, or other data approve by the DGCA.

The standards and limitation covered in the manufacturer publications shall be used to determine that the items are accepted or rejected.

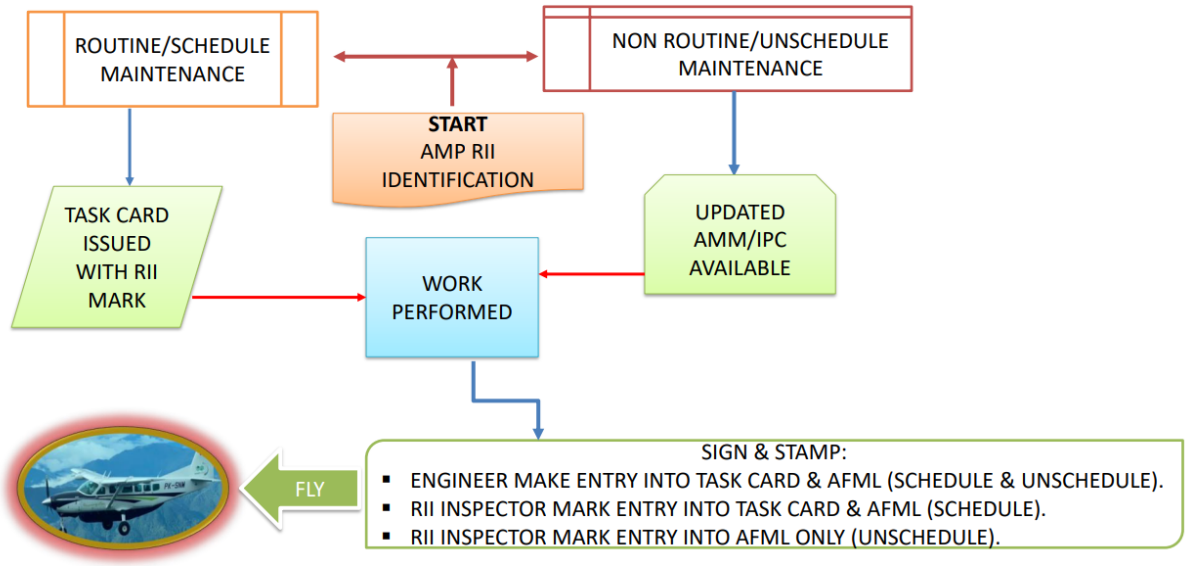
Unless more specific inspection instructions are contained within the applicable manual, the inspector will make a visual inspection of each installation for security, safety, and workmanship.

3.12.6. Prohibition Of Inspect Of Own Work

No person, who performed any maintenance, preventive maintenance, repair or alteration work identified as a RII may perform the required inspection of that work. The person who is performing required inspection is not permitted to inspect his own work.

3.12.7. Completion of Required Inspection

No aircraft may be release for return to Services undergoing maintenance; preventive maintenance, repair or alteration until all Required Inspection Items has been performed completely. Persons authorized to release for return to Services is responsible to assure all RII are perform properly by authorized personnel, RII Listing refer to latest AMP base on Schedule/unscheduled Maintenance. RII Inspector will Stamp & sign inspection in TASK &/or AFML, please refer flow chart below for RII Sign procedure:



3.12.8. Required Inspection Item (RII) List

When maintenance is performed on the systems or sub-systems listed below (excluding routine maintenance or inspections that do not involve removals, disconnection, or rigging), a designated RII inspector must inspect the work completed before the aircraft is approved for return to Services.

The Required Inspection Item lists are in accordance with PT. Smart Cakrawala Aviation Approved Maintenance Program.

3.13. WORK INTERRUPTION PROCEDURE

3.13.1 General

A. The following procedure establishes control to assure that any work, in progress and not completed as a result of shift changes or similar work interruptions, will be completed before the aircraft or in-shop power plant is released to Services. (CASR 135.369).

B. These procedures for using the Work Interruption Status form: SCA/MTC/003 apply when circumstances do not permit continuous work coverage during maintenance or inspection. Sufficient detail of the work status should be entered on the form in order to prevent any oversight. This form is not necessary when the standard procedures provide sufficient detail to prevent any oversight. This is especially critical of flight control systems.

3.13.2 Procedure

A. During shift change, the off-going supervisor is responsible for advising the on-coming supervisor of the work status on all aircraft covered by his shift and of the work in progress but not completed.

B. During shift change, the off-going inspector is responsible for advising the on-coming inspector of the inspection status on all aircraft covered by his shift and of the inspections in progress but not completed. If necessary, he will complete the Work Interruption Status form for uncompleted inspections.

C. The shift change supervisors shall also be responsible for reviewing the status of all maintenance/inspection paperwork related to the turnover.

D. During shift change or work interruption for work that was started but not completed, the off-going supervisor must ensure that his mechanic completed the status of his unfinished job on the Work Interruption Status form or that the work is covered by the provisions within this section.

E. During a shift, when work is interrupted and it is apparent that the job will be left unattended for an indefinite period, the Work Interruption Status form must be filled out by the person leaving the job.

G. During power plant in-shop maintenance, the Work Interruption Status form will also be used to account for any foreign objects such as bolts, nuts, tools, etc., inadvertently falling within power plant outer cases and not completely recovered at shop shift change. Additionally, this un-airworthy discrepancy must also be recorded on the maintenance work sheet and its assigned work item number will be recorded on the Work Interruption Status form.

H. When accomplishing routine work controlled by numbered work cards, if a partial sign-off is required due to change in shift or other cause, the person making partial sign-off will sign the record sheet with a slash mark following his initials. On the reverse side of the record sheet he will write the card number, followed by the work card item number(s) he has completed and his signature. Initiation of Work Interruption Status, Form SCA/MTC/003 is not required in this case.

I. Work Interruption Status Forms will be retained as part of the respective paperwork package and forward to Aircraft Records attached to the accountable work document for record purposes

3.14. SHIFT LOG PROCEDURE / TRANSFER RECORD PROCEDURE DURING MAINTENANCE (CASR 135.369)

3.14.1 General

The shift log / Transfer records sheet (Form: SCA/MTC/044) or equivalent is to be utilized by PT. Smart Cakrawala Aviation Maintenance facilities to provide general maintenance shift turn over comments and transfer work record on the aircraft worked during that particular shift. The form is used in conjunction with the Work Interruption Procedures, section 3.14, to provide compliance with CASR 135.369. A section of the two part shift log provides for a record concerning maintenance, unusual occurrences, etc.

3.14.2 Procedure

A. One Shift Log Sheet should be used for each work shift's activity.

B. Aircraft maintenance turn over item/work and transfer work record interruption information may be included with the associated maintenance paperwork.

C. Any unusual occurrences should be annotated in the appropriate section of the Shift Log / Transfer Record Form.

D. Chief Maintenance is responsible for initiating a Shift Log/Transfer Record Form, each day by signing it, dating it, indicating shift and providing station identifier.

E. Chief Maintenance beginning a shift must read and review the previous Shift Log/Transfer Record Data and verify that action by his signature. Also, that he understands the items indicated on that previous shift activities.

F. In situations where Chief Maintenance will not be available, he/she may assign a senior Engineer/Technician the responsibility of completing the work shift log accordingly.

3.15. DUTY TIME LIMITATION (CASR 135.377)

The maintenance personnel whose perform and approved maintenance, preventive maintenance and alteration shall relieve from duty for a period of at least 24 (twenty-four) consecutive hours during any 7 (seven) consecutive days, or equivalent thereof within any 1 (one) calendar month.

In view above, following procedure shall be followed:

A. Before Duty Departure:

1. Technical department staff received a request to forecast a schedule duty engineer for the next three Month.
2. Technical department hold a briefing to plan the schedule duty engineer according to the request.
3. Technical department staff check the availability of engineer from the company database, then give the schedule forecast to Chief Inspector and Technical Manager to be reviewed.
4. Technical department staff make the schedule after the schedule forecast has been approved by Technical manager then report to the schedule to the President Director.
5. Technical department staff issue duty order letter for the engineer who has been assigned in accordance with schedule.
7. Technical department provide flight ticket to the engineer in charge.
8. Duty time standard 30 days on duty & 5 days off for outstation.

B. Before Duty Return:

1. Technical department will notice engineer in charge 7 days before the expiration of duty.
2. Technical department staff provide flight ticket for the engineer in charge to off from duty

3.16. SHORT TERM ESCALATION (FORM: SCA/MTC/007)

3.16.1. Purpose

Short term escalation is used under controlled conditions for individual aircraft, engine or component without affecting safety. PT. Smart Cakrawala Aviation must inform the DGCA of any escalation.

3.16.2. Procedure

Detail procedures for issuing short term escalation of maintenance intervals are described in the Company Maintenance Manual (CMM) chapter 3.17 and PT. Smart Cakrawala Aviation Authorization, Condition and Limitation (ACL) Sub part D76.

Short Term Escalation is approved deviation with specified time limitation. PT. Smart Cakrawala Aviation according to Authorization, Condition and Limitation (ACL) Sub Part D76, herewith may issue the Short Term Escalation (STE) form: SCA/MTC/007 with notice to meet requirements as follows:

1. STE is only issued regarding to deviation of the scheduled maintenance check time and failure function of component with no high risk for safety. Reason for using STE must be justifiable, valid, documented to show cause. Chief Inspector of PT. Smart Cakrawala Aviation shall ensure that the STE is not abuse is do noted, the escalation privilege will be withdrawn.

   The escalation is prohibited for:

   a. Airworthiness Directives (AD)
   b. Critical Life Limit Parts are specified interval by manufacturer (Airworthiness life Limitation specified by TCDS or Maintenance Manual).
   c. Certification maintenance requirement.
   d. Limitation specified by MEL (Minimum Equipment List) or Configuration Deficiency List (CDL).
   e. Structural sampling period imposed by MRB Document.
   f. CASR Requirements.

2. STE is only ONCE issued. No more than one STE issuance for same subject on same aircraft. Either STE must be attached by completed data related to information that the subject may be extended and give information for knowledge to DGCA. If no completed data, the aircraft shall be instructed to be grounded.
3. For scheduled maintenance check of PT. Smart Cakrawala Aviation aircrafts, STE will be stated:

   And/or depend on the manufacturer recommendations for tolerance allowed.

CESSNA C208/C208B	Except for daily inspection, preflight check, and prolong inspection; Inspection ≦ 400 hrs. Maximum 10%, Inspection ≥ 400 hrs. maximum 5%, Calendar time inspection maximum 30 days.
AIRBUS HELICOPTERS **EC 130 T2**	Except for daily inspection, pre-flight check, and prolong inspection Inspections ≤ 3000 hrs. maximum 10% Inspection ≥ 3000 hrs. maximum 5% Calendar time Inspection ≤ 72 M max 10% Calendar time Inspection ≥ 72 M max 10%

Pillatus Porter PC6	Except for daily inspection, pre-flight check, and prolong inspection Inspections 100 hrs. maximum 10% Inspection ≥ 3500 hrs. maximum 5% Calendar time Inspection max 30 days

4. Procedures for issued Short Term Escalation:
   a. Technical Manager will preparation completes Short Term Escalation form SCA/MTC/007 and forward it to Chief Inspector.
   b. Chief Inspector shall review the application for the following:
      a. Check that it is not a prohibited item.
      b. Review operational history and continuous analysis surveillance program data (if available).
      c. Review previous escalation history for indication of abuse.
      d. Recommend any special inspection.
   c. Chief Inspector will then approve the short term escalation provided the above review and satisfied.
   d. The original form will be attached on aircraft and copy will forwarded (distribution) to aircraft records (Engineering & PPC), Technical Department, Safety Department, Operation Department, and DGCA.
   e. Revise the component status report to update the data of escalated item.
   f. Engineering & PPC section is responsible to coordinate with maintenance section and another unit concern to close STE before due.
   g. Chief Inspector is responsible to watch monitoring to ensure STE closing.
5. Approved STE for scheduled maintenance check, it means that any subtraction of interval hours checks for next periodic inspection.
6. The Short Term Escalation Approval will be kept for 2 years period for audit purposes.

3.17. CONTRACTED MAINTENANCE

1. Contracted maintenance will be performed by DGCA Approved Maintenance Organization which is authorized by the Company after having demonstrated that they are properly equipped, qualified and have an organization adequate to perform the maintenance intended. Unless specifically specified in this manual, preventive maintenance and alterations will be performed per the manufacturer's engine, component, and maintenance or overhaul specifications and in accordance with Company Maintenance Manual.
2. When maintenance - other than substantial maintenance - must be performed at a facility that has not been previously authorized, and the facility is properly equipped, qualified and has an organization adequate to do that maintenance, the Technical Manager may issue a one-time authorization to utilize the facility. The facility must then be appropriately/ satisfactorily assessed (form SCA/MTC/042), and listed on the Company list of authorized repair facilities inserted in form : SCA/MTC/045, before continued utilization of that facility may be authorized and granted certification signifies that the maintenance facilities have been assessed/inspected and approved (form SCA/MTC/043).
3. Company may not use any AMO which is not listed in the Company Maintenance Manual to perform substantial maintenance.
4. Substantial Maintenance. Within the intent of the CASR and Company Maintenance Manual substantial maintenance is defined as follows:
    a. Accomplishment of scheduled heavy maintenance inspections, e.g., “1600 hours” checks or 5 Years or equivalent, which may include accomplishment of Airworthiness Directives, Airworthiness Limitations Item, and Corrosion Prevention and Control Program tasks applicable to aircraft primary structure.
    b. Accomplishment of off-aircraft maintenance or alteration of engines that involves: the separation of modules or propellers; Full Authority Digital Engine Controls; major engine repairs and; repairs to life-limited parts, such as compressors, turbine disks, engine cases, but excluding, for example blades, vanes, and burner cans.
5. Qualification to perform substantial maintenance. Before a contractor, who performs substantial maintenance for an air carrier may be authorized and listed on Company Maintenance Manual; compliance with CASR part 135 subpart L must be ascertained. The following items provide the standard performance:
    a. Chief Inspector will conduct assessment to the contractor. The assessment must demonstrate the contractor’s capability, as well as the organizational structure, competent trained personnel, and adequate facilities and equipment to do the work arranged for and in accordance with Company Maintenance Manual.
    b. External audits of AMO will be conducted under the direction of Safety and Quality Manager.
6. Contracted AMO shall comply with PT. Smart Cakrawala Aviation procedures and CASR Part 145.2 to all maintenance works on PT. Smart Cakrawala Aviation aircraft, engine, component, accessories, emergency equipment and appliances, landing gear and all related system.
7. Each maintenance works performs by AMO related to major repair and major alteration shall be recorded on log book, and also has a Certificate Return To Services meets the requirements of CASR Part 43.9 and CASR Part 43 Appendix B for permanent maintenance records file.

8. During accomplishment of maintenance works when found discrepancies, AMO/Repair Station shall discuss first with company's technical representative before continuing the works.
9. Company may not use a repair station or Maintenance Organization to perform substantial maintenance if they are not listed in Maintenance Contract of Company Maintenance Manual. List of Maintenance Organization Contract with PT. Smart Cakrawala Aviation see in appendix E.

3.18. AIRCRAFT AND ENGINE UTILIZATION REPORT (Form: SCA/MTC/046)

PT. Smart Cakrawala Aviation requires each aircraft to submit to Technical Manager as soon as practicable each month, the monthly Aircraft/ Engine Utilization Report. It is the responsibility of the Engineering & PPC Section for completion and accuracy of the monthly report. The following report will be recorded in the Aircraft and Engine Utilization Report:

a. Aircraft

1. Type of Aircraft
2. Daily Flying Hours (During 1 Month)
3. Total Aircraft Hours/Cycles (During 1 Month) Aircraft CSN
4. Date of printed
5. Schedule Maintenance Summary
6. Aircraft Serial Number
7. Aircraft Registration Mark
8. Aircraft TSN

b. Engine

1. Engine Type & Model
2. Engine Time Since Overhaul
3. Engine Time Between Overhaul
4. Due At A/C Total Hour
5. Engine Remaining to The Next Overhaul / Inspection

c. Landing Gears

1. Landing Gears Type & Model (NLG & MLG)
2. Landing Gears Time Since Overhaul
3. Landing Gears Time Between Overhaul
4. Landing Gears Remaining to The Next Overhaul / Inspection

4.1. GENERAL

4.1.1. Reference.

CASR Part 135.380, 135.380A.

4.1.2. Introduction.

This chapter are describing an aircraft, aircraft engine, components and qualification personnel record system used by the PT. Smart Cakrawala Aviation to meet the technical record requirements as specified in the CASR Part 135.380, 135.380A.

The record system procedure and retention enable PT. Smart Cakrawala Aviation to achieve the maximum value and utilization of its aircraft by documenting proper parts installation a routine / non routine maintenance action.

The standards for determining the time limitations of overhaul, inspection, and check of airframes, engines and components including emergency equipment are documented in maintenance program.

4.1.3. Maintenance Recording Requirements.

The Company's technical records function is under the control of the Engineering / PPC unit and is responsible for recording and filing information required. This information consists of the following:

1. All the records necessary to show that all requirements of the issuance of a maintenance release under CASR 43 and CASR 135.709 have been met,
2. A description (or reference of data acceptable to the DGCA of the work performed,
3. Records of all other maintenance work that it does, identifying by name and number the licensed engineer who performed or supervised the work, and the inspector of that work.
4. Records containing the folowing information:
    a. The total time in service of the airframe
    b. The total time in service of each engine and propeller
    c. The current status of life-limited parts of each airframe, engine**,** propeller and aplliance.
    d. The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.
    e. The identification of the current inspection status of the aircraft, including the time since the last inspections required by the maintenance program under which the aircraft and its appliances and maintained.
    f. The current status of applicable airworthiness directives, including the date and methods of compliance, and if the airworthiness directive involves recurring action, the time and date when the next action is required.

g. A list of current alterations to each airframe, engine, rotor, propeller, and appliance.

NOTE: That 'time' means calendar time, hours or cycles as applicable.

4.1.4. Maintenance Records.

The record of maintenance work accomplished will be shown on the appropriate maintenance log, worksheet, inspection form, overhaul records, or Serviceable tag. The preservation of these records will be according to CASR 135.380. Engineering / PPC Section is responsible for assuring that all records are properly signed and completed. Engineering/ PPC Section will responsible for the preservation of all historical records of aircraft work accomplished and making maintenance record available to DGCA.

4.2. ALTERATION AND REPAIR RECORD POLICY (CASR 135.380)

The Engineering / PPC Section shall prepare and keep a record/report Alteration and Repair record. The copy of the record/report shall be available for inspection by the DGCA Inspector.

4.3. RECORD KEEPING SYSTEM

1. The Record Keeping System assures that adequate and appropriate records are maintained for all work performed on PT. Smart Cakrawala Aviation aircraft. The retention of records enables the Company to maximize the value and legislation of its assets (aircraft, engines, components, appliances, etc.) by documenting proper parts installations, and routine and non-routine maintenance actions.

2. The Record Keeping System classifies all records into three retention categories to improve storage and retrieval of data. These categories are:

   a. The record of Schedule Inspection shall be retained until the work is repeated or superseded by other work or for two years after the work is performed.

   b. The records of the last complete overhaul of each airframe, engine, propeller, and appliance shall be retained until the work is superseded by work of equivalent scope and detail.

   c The records shall be retained for a minimum period of 90 days after the unit to which they refer has been permanently withdrawn from service.

   d. **Permanent** -For permanent changes to the configuration of an airplane, engine, component and appliance. Such records are retained permanently.

   e. The Record Keeping System assures that records will be filed and stored in such a manner that the records will be readily accessible to authorized auditors and other personnel. The filling and storage system shall promote: ease of retrieval, accessibility, and adequate controls.

   Store location and report keeping in:

   Operational Place Business – Office Address:
   Jalan Pantai Indah Selatan 1 no.4, Penjaringan,
   Jakarta Utara 14460, Indonesia.

   Phone: +62 21 50112330

4.4. TRANSFER RECORDS

Should the ownership of the aircraft will be change to other party, all relevant original aircraft documents and records of installed components shall be transferred to the new owner at the time of transfer of title or de registration.

The record will be transfer as follows:

a. The total time in service of the airframe

b. The total time in service of each engine and propeller

c. The current status of life-limited parts of each airframe, engine**,** propeller and aplliance.

d. The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.

e. The identification of the current inspection status of the aircraft, including the time since the last inspections required by the inspection program under which the aircraft and its appliances and maintained.

f. The current status of applicable airworthiness directives, including the date and methods of compliance, and if the airworthiness directive involves recurring action, the time and date when the next action is required.

g. A list of current alterations to each airframe, engine, propeller, and appliance.

4.5. COMPUTERIZED MAINTENANCE RECORDS SYSTEM

1. PT. Smart Cakrawala Aviation may use any practicable application (CESCOM / Microsoft Excel / AMS Satu Kode) for aircraft status report and project maintenance due.
2. Engineering & PPC as authorized personnel shall be allowed to key in inputs and/or alterations.
3. The Company's technical records is under the control of the Engineering / PPC unit.

5.1. GENERAL

5.1.1. Reference

CASR Part 135.369.

5.1.2. Introduction.

Tool and test equipment calibration program is used to control the currency off all measuring tool and equipment used by PT. Smart Cakrawala Aviation.

To provide a preventive maintenance and control program for precision tools and test equipment used by PT. Smart Cakrawala Aviation maintenance personnel, a program has been established for scheduling of such units for periodic check and calibration.

All tool and test equipment, including precision tools, gages, scales, electrical measuring equipment. NDI equipment, weighing equipment, Compass swing used in PT. Smart Cakrawala Aviation are subject to periodic checks and calibration, and must be maintained, inspected and calibrated by Approved Indonesian National Standard Calibration Bureau. Calibration schedule of tools and equipment will be determined by the condition and quantity of tools and equipment itself. Calibration more than one tools or equipment in the same type will be done with different time.

5.2. STANDARD REQUIREMENTS

All standards used in the calibration of precision tool and equipment must be traceability to the Indonesian National Standard Calibration Bureau or an approved foreign country's standards by certificate from the testing facility. ***Frequency for the calibration of standards may vary for different units following manufacturer recommendation interval or maximum 24 months if manufacturer recommendation not available.***

All Approved Maintenance Organization contracted for aircraft maintenance by PT. Smart Cakrawala Aviation must maintain tool and test equipment using their approved procedure and intervals. Each contract agency, which does not have an approved calibration program, must comply with the listed calibration interval above.

Availability of tooling and equipment determined by a surveillance inspection and discussion with contract agency personnel that adequate special tools, working tools and equipment are available to properly inspect and maintain the aircraft or parts thereof.

5.3. TOOL CALIBRATION PLACARD AND RECORD

All Precision tool and test equipment shall be calibrated at periodic intervals established on the basis of stability, purpose and degree of usage. Each piece of precision tool and test equipment will be tagged by a square sticker (Form No.: SCA/MTC/005). The sticker must indicate the last calibration date and next calibration due date.

A square sticker calibration tools will be used to identify the precision tool or test equipment. Current calibration of a unit will be indicated by sticker. The sticker will identify the unit by part number or model, serial number, date of the last calibration, due date for the next calibration, date of calibration, and inspector stamp. The sticker will be firmly affixed to the unit.

PT. Smart Cakrawala Aviation will be use sticker and log card for identify calibration.

Recording of calibrated Tools and Equipment in Form SCA/MTC/070 will be under the responsibility of Chief Inspector.

5.4. BORROWING OF CALIBRATED TOOLS AND EQUIPMENT

In condition that PT. Smart Cakrawala Aviation has no tools/equipment needed for performing maintenance, preventive maintenance or alteration, PT. Smart Cakrawala Aviation may borrow the calibrated tools/equipment from other air carrier, provided:

1. The tools/equipment is calibrated by approved shop.
2. Calibration date is not expired.
3. Condition of the calibration tools/equipment is satisfied.
4. The tools/equipment document is completed (tag, record/report calibration from approved shop)

5.5. BORROWING OF COMPANY TOOLS

The usage and returned of Tooling and Equipment from store shall be recorded by the storeman (FORM SCA/MTC/071), issued under the user's name to keep the tool and equipment completeness, cleanliness and tidiness.

6.1 GENERAL.

This section explains the fueling and de-fueling procedures that must be followed by all ground personnel. Fueling and PT. Smart Cakrawala Aviation prior to each flight, or prior maintenance is a very important function of daily operations. It is the responsibility of all maintenance to take whatever action necessary to prevent fire or dangerous.

6.2. GENERAL SAFETY PRECAUTION

6.2.1. Precaution Fueling and Defueling

The following precautions must be taken before starting refueling operations:

1. Fuelling operation normally must not take place inside a hangar.
2. Person not concerned with the handling of aircraft, shall not be admitted in the fuelling zone, which normally extends at least 3 meters from the perimeter, as defined by the aircraft's wing and engines and the fuel truck. The fuel truck shall be so parked that driving in forward direction in possible at all times.
3. An electrical power unit connected to the aircraft, must be located as far as possible from the aircraft and fuel truck, easy be removed away when necessary and not forming on obstruction to the fuel truck. If there is personnel on the board the aircraft, steps or boarding ramps must be placed at one of the exits, at least.
4. Extinguishing equipment must always be available outside the aircraft in an accessible at edge of the fuelling zone.
5. Before fuelling at night, the external power switch and the required light for main lighting of cockpit and cabin must be switched on. On airports with insufficient lighting, the navigation lights must be on and, if available, also the wing and ground flood lights.
6. PT. Smart Cakrawala Aviation qualified employee must supervise fuelling. Fuelling operations during thunderstorm is not permitted.
7. Fuel sample should be taken from the fuel truck (PT Pertamina's Truck)
8. Check water contamination by using a water contamination tester (Shell Water detector (SWD) or Capsule type .
9. Check visual cleanliness of fuel by shaking fuel sample, it must be clear from sediment and Engineer In charge must be make sure fuel cleanliness before fuelling to the aircraft.
10. Ground cable static discharge should be installed before refueling.
11. Do not wear a metal taps on shoes.

Caution:

a. A ground fire extinguisher must be ready for use and accessible near the edge of the fuelling area.

b. Qualified person should be stationed at the aircraft fuel control panel and/ or in the flight compartment during pressure fueling operation.

c. Personnel should be familiar with the fuel requirements for the models and type of aircraft that they are serves.

d. Use the Aircraft Maintenance Manual for specific aircraft refueling procedures.

e. Radio, radar or other high frequency electronic equipment should not be operated on/or in the vicinity of the aircraft during refueling or de-fueling operation. Do not operate electrical switch high power energy.

f. Qualified persons should be stationed at the aircraft fuel control panel and /or in the flight compartment during pressure fueling operations.

g. Maintain pressure refueling available (from Supplier Company) refer to Aircraft Maintenance Manual.

h. If the fuel spill occurs, discontinue fueling operations until the spill can be removed using proper safety precaution. Rectified the spillage causes before continue refueling.

6.2.2. Specific Safety Measures during Fueling

During fuelling, operation of electrical switches, such as for pre-flight check, and opening and closing of cargo doors should be avoided whenever possible without delaying departure, no plugs or electrical power units should be connected or disconnected.

When abundant spilling of fuel occurs, the following safety measures have to be taken:

1. Fuelling operation must be stooped at once.
2. No fuelling is allowed with engine running.
3. The airport brigade must be warned.
4. Crew and station management must be informed.
5. Personnel not directly in involved in aircraft handling, should leave the fuelling zone.
6. Shut down ground power unit and other engines or electrical motor vehicles in the fuelling zone, and avoid all further electrical switching.

If considered necessary, tow the aircraft to a safe place.

6.3. REFUELING AND DEFUELING PROCEDURE

6.3.1. Fueling Inside a Hangar

When fuelling operations insides the hangar is unavoidable, the following is applicable:

1. Local regulations permit such operations.
2. Only fuelling kerosene is allowed
3. Radar installations of aircraft in and around the hangar must be off.
4. Extreme carefulness shall be applied when handling tools, in order to avoid sparks.
5. Measures shall be taken to ventilate possible fuel vapor (e.g. keep hangar doors open).
6. Fire extinguisher must be available in an accessible position at the edge of the fuelling zone.

6.3.2. Over Wing Refueling

1. The fuel filler hose should be dropped over the wing's leading edge.
2. Connect fueling nozzle plug to aircraft grounding receptacle.
3. Avoid standing on the wing surface and never stand on wing struts. Take off the shoes when standing on wing surface.
4. Observe the quantity of the fuel during over wing fueling.
5. During over wing fueling operation, fueling personnel should not carry objects in the breast pocket of their clothing because loose objects may be fall into the tanks.
6. Be sure that over wing fuel filler caps are reinstalled and securely latched when fueling is completed.

Warning : Do not use over wing fueling during heavy rain storms.

6.3.3. Refueling from Drums or Jerry Cans

The pilot shall observe precautions previously outlined in this section:

1. Fuel from the drums will be pumped through a company approved pump and filter systems.
2. Drums should be stored on their side with the bungs lined up horizontally to avoid water ingestion.
3. Drums should be stood upright and blocked 2-3 inches beneath the large bung side for at least six hours prior to use to allow for water sitting to the low side.
4. Drums without rubber bung seals intact should not be used.
5. The fuel suction pipe should rest 1 1/2 to 2 inches above the bottom of drum, particularly if visible water is present in the low side of the drum.
6. Fuel used from the Jerry cans will have been pumped through a proper filtration system prior to being put in the cans.
7. Filtration of go and no go should be used when refueling

Control of Stock Fuel in the Drum

Before using any drum of fuel, the following must be adhering to:

1. Only sound clean drums with good interior should be used. The inside of each drum must be inspected by using flash light and checked by deep stick with water detection paste on it prior to be used.
2. Drums should be tight with no broken seals prior to use. Bungs should always be screwed tightly into empty drums because an open bunghole allows hazardous vapors to escape from the drum after the drum has been emptied.
3. When jet fuel is more than 6 (six) months since manufacturing date, take particularly note of sample appearance color and water reaction. For Jet Fuel exceeds 12 (twelve) calendar months since manufacturing date, sample should be tested in approved Fuel Laboratory.

6.3.4. Water Drain

1. It is not necessary to drain fuel from aircraft on transit or turn around with ground time less than 6 (six) hours.
2. At over night stop or for inspection, drain a fuel sample (± 1 liter) from the bottom point of every tank and check for water contamination. If the fuel is contaminated, drain the fuel from the tank until the samples are clear of water contamination.
3. Fuel sample will be kept until last flight of the day. The Fuel Record Log (form: SCA/MTC/001) will be kept within the maintenance Unit under supervision of Chief Maintenance.

6.3.5 Helicopter Fueling with Engine Running (Hot Fueling)

The following guidelines are general safe operating procedures. Flight crew and ground crew members should refer to the aircraft flight manual and other guidance developed by the helicopter manufacturer of refueling procedures that are unique to a specific helicopter. Helicopter fueling while engines are operating should be permitted only under the following conditions:

1. Only turbine-powered helicopters fueled with Jet A or Jet A-l fuels should be fueled while an engine is operating.
2. Helicopters to be refueled while an engine is operating should have all sources of ignition of potential fuel spills located above the fuel inlet port(s).
3. Pilot qualified in the helicopter must be at the aircraft controls during the entire fuel servicing process.
4. Passengers should be de-boarded to a safe location before hot refueling operations begin.
5. Only designated personnel properly trained in hot refueling operations should operate the fueling equipment Written procedures should include guidelines for safe handling of the fuel and equipment
6. Persons not directly involved with the refueling operation should be kept clear of the refueling area

7. All doors windows, and access points that allow entry to the interior of the helicopter and are adjacent or in the immediate vicinity of the fuel inlet ports should be closed and kept closed during refueling operations. Fumes must be adequately vented from the aircraft cabin during fueling operations.
8. Fuel should be dispensed from approved "dead-man type nozzles with a flow rate not to exceed 50 PSI when fuel is dispensed from fixed piping systems the hose cabinet should not extend into the rotor space. A curb or other approved barrier shall be provided to restrict the fuel Servicing vehicle from coming closer than 10 feet (3 meters) to any helicopter rotating components. If a curb or approved barrier cannot be provided, fuel servicing vehicles should be kept 20 feet (6 meters) beyond any Helicopter rotating components and a trained person shoulddirect the fuel servicing vehicle's approach and departure.

6.4. FUEL QUALITY AND CONTROL

6.4.1. Objective

The quality and cleanliness of aviation fuels are vital to the safety of PT. Smart Cakrawala Aviation aircraft and, subsequently, all flight personnel. Fine sediment in fuel may block the engine fuel supply system and erode critical parts in the engine and fuel control systems. Free water (water not dissolved in the fuel) may freeze at high altitudes or cold outside air temperatures and plug the fuel screens, causing the engine to cease operation/flame out and possible loss of the aircraft. Salt water is extremely dangerous because of its potential effect on certain aircraft instruments. Contaminants must be separated out of fuel before the fuel is pumped into the aircraft.

6.4.2. Pilot Responsibility for Alertness during Refueling Operations

Pilots must constantly be on the alert for non-approved aviation refueling equipment such as filters and nozzles. Refuelers may contain commingled fuels, and untrained personnel may be operating refuelers or fixed site facilities. There is always a potential for receiving incorrect type and grade or commingled fuel. The Pilot is ultimately responsible for assuring proper grade and type of fuel is delivered into his aircraft. Before fuelling to Aircraft the Pilot must be checked water contamination by using a water contamination tester (Shell Water Detector / SWD) from PT Pertamina.

6.5. BONDING

6.5.1. General

It is important to remove all sources of ignition in the vicinity of any fuel handling operation, such as any open flame, spark, smoking, unapproved engine operation and the less obvious is the ignition source hazard offered by static electricity.

6.5.2. Static Electricity

Static electricity, sufficient to cause combustion of fuel vapors, can occur by the free falling of fuel liquids into tanks, flowing through a pipe, filter or hose, by pouring from one container into another, or the splashing of fuel into a fueler or aircraft during loading and fueling / defueling operations.

6.5.3. Bonding

To minimize the hazard of static electricity, it is necessary to equalize the electrical charges before they build-up to a high enough potential to create a static spark. Prior to making any fueling connection to the aircraft, the fueling equipment shall be bonded to the aircraft by use of a cable, thus providing a conductive path to equalize potential between the fueling equipment and aircraft. The nozzle shall be bonded with a nozzle bond cable having a clip or plug to a metallic component of the aircraft that is metallically connected to the tank filler port. If there is no plug receptacle or means for attaching a clip, the operator shall touch the filler cap with the nozzle spout before removing the cap so as to equalize the potential between the nozzle and the filler port. The spout shall be kept in contact with the filler neck until the fueling is completed. When a funnel is used in aircraft fueling, it shall be kept in contact with the filler neck as well as the fueling nozzle spout or the supply container.

6.5.4. Bonding to Aircraft

Prior to making any fueling connection to the aircraft, the fueling equipment shall be bonded to the aircraft by the use of a cable, thus providing a conductive path to equalize potential between the fueling equipment and aircraft. The bond shall be maintained until fueling connections have been removed.

6.5.5. Over-wing fueling

When fueling over-wing, the nozzle shall be bonded with a nozzle bond cable having a clip or plug to a metallic component of the aircraft that is metallically connected to the tank filler port. The bond connection shall be made before the filler cap is removed. If there is no plug receptacle or means of attaching a clip, the operator shall touch the filler cap with the nozzle spout before removing the cap so as to equalize the potential between the nozzle and the filer port. The spout shall be kept in contact with the filler neck until fueling is completed.

6.5.6. Equipment for Bonding

a. Bonding Cables

Bonding cables will be of a flexible, durable design and material.

b. Plug and Jack Assembly

The plug and jack assembly and the spring clamp will be of unpainted, non-rusting metal.

c. Testing the Bonding System

Annually, the bonding system (cables and connections) will be inspected for continuity and integrity as required by frequency of use and type of cable.

6.6. SPECIAL CONSIDERATIONS WHEN HANDLING FUEL

6.6.1. Splashing

Splashing can be minimized during the loading of a fueler by placing the end of the loading spout at, or as near as possible to, the compartment bottom. Fuel flow would be reduced until the spout end is covered with fuel. When filling large storage tanks, splashing can be minimized by slowing down the initial flow rate until the end of the tank inlet line is covered with at least two feet of fuel. Bottom filling should be employed whenever available.

6.6.2. Metal or Conductive Objects

Objects such as inventory gauge tapes, sample containers and thermometers should not be suspended or lowered into a tank or fueler compartment while it is being filled. Any static charge which may be present should be given at least 20 minutes after cessation of flow to bleed off before using these devices.

7.1. GENERAL

This policy is to ensure that all aircraft are maintained in airworthy manner in accordance with the applicable Civil Aviation Safety regulation and all maintenance personnel are appropriately well trained. Procedures for technical personnel training program can be found in Maintenance Training Program Manual Document Number: SCA/TEK/2-002.

8.1. AIRCRAFT FLIGHT AND MAINTENANCE LOG (CASR 135.701)

8.1.1. General

The Aircraft Flight and Maintenance Log is a journey log that is used to record all malfunctions and irregularities reported by flight crews during aircraft flight operations. The log also records rectifications made by maintenance personnel and/or inspection findings and rectifications during flight line maintenance.

The Aircraft Flight and Maintenance Log form : SCA/MTC/013 are used to record the following:

- Aircraft flight time.
- All aircraft and engine data required for records and analysis.
- Discrepancies observed by flight crews during operation of the aircraft and inspection findings.
- Corrective actions taken by maintenance personnel to rectify discrepancies.
- Entries of each maintenance release of aircraft after maintenance checks.
- All scheduled maintenance performed on the aircraft.
- Component changes for scheduled and unscheduled maintenance.
- All engine oil, hydraulic fluid and fuel servicing with the quantities added to the aircraft.
- Deferred maintenance actions on discrepancies with reference to the MEL.

Discrepancies recorded in the maintenance log may include operational failures and malfunctions, and abnormal flight occurrences such as hard and overweight landings, foreign object damage (FOD) and lightning strikes.

8.1.2. Policies

Each person who takes action in the case of a reported or observed failure or malfunction of an airframe, engine or appliance that is critical to the safety of flight shall make, or have made, a record of that action in the aircraft maintenance log.

8.1.3. Procedures for Aircraft/Engine/Propeller Log Book

Aircraft/engine/propeller logs are permanent record books used to record all maintenance activities or historical data of an aircraft.

These log books remain in place at the aircraft maintenance record in PT.Smart Cakrawala Aviation Head Office. Aircraft records personnel will make entries in aircraft logs each day with reference from aircraft maintenance log books.

A. Responsibilities

The Engineering & PPC unit is responsible for administering and transferring all maintenance record activities that were previously recorded in Aircraft Maintenance Log books to the Aircraft/Engine each day.

8.1.4. Procedures for the Aircraft Flight and Maintenance Log (Form : SCA/MTC/013)

A. Description

(1) The Aircraft Flight and Maintenance Log is used for PT. Smart Cakrawala Aviation aircraft. The pages of the log are numbered reffer to AMS system.

The previous log will remain in the aircraft for seven (7) days.

(2) The Aircraft Flight and Maintenance Log is a required regulatory document and must be treated as such. No erasures or obliterations will be permitted. If an error is made, a single line will be drawn through the item with an initial, and a new entry made. White out (using TIP-EX) or an ERASURE shall not be used. It is very importance that all entries are legible and accurate and that all applicable blocks are completed. All entries must be made in ink.

(3) DO NOT DESTROY OR DISCARD ANY AIRCRAFT FLIGHT AND MAINTENANCE LOG PAGE. All pages must be accounted for. If a log page is rendered void due to an error in entry, etc., the page should be marked diagonally across the face in bold block letters "VOID," and the name or initials of the person voiding the sheet. Follow the normal distribution channels to return the page to Engineering & PPC for processing and filing. The aircraft registration number, station, and date should be entered on all "VOIDED" log pages to facilitate handling.

B. Regulatory Requirements

Civil Aviation Safety Regulation (CASR) 135.709 requires that Aircraft Flight and Maintenance Log book entries must:

(1) Be prepared in accordance with the procedures set forth in the certificate holder's manual.

(2) Include a certification that:

- The work was performed in accordance with the requirements of the certificate holder's manual.
- All items required to be inspected were inspected by an authorized person who determined that the work was satisfactorily completed.
- With that, the aircraft meets the requirements of the CASRs and is in condition for safe operation. No known condition exists to render the aircraft un-airworthy.

(3) Only a PT. Smart Cakrawala Aviation qualified and authorized licensed aircraft maintenance engineer may sign an Airworthiness Release, Required Inspection Item, or sign-off an entry for the work which he/she is employed.

(4) In accordance with CASR 135.709, the signature of the authorized certificated engineer, inspector, or workshop engineer constitutes a certification that the corrective action was done in accordance with established procedures and limitations.

8.1.5. Flight Crew Responsibilities

A. Flight crew members will prepare a new aircraft flight and maintenance log book sheet under the following circumstances:

- After maintenance has been performed and a new airworthiness release has been signed.
- Following crew changes.

B. Before starting a new aircraft flight and maintenance log book sheet, the flight crew member will make certain that the previous maintenance log book sheet reflects the airworthiness release or the appropriate entry required under CASR 135.709(a). Then he/she will enter the station, date, aircraft type, and aircraft number. If the first page of a new log book is used, the last page number of the old log book will be entered in the appropriate block at the top of the page.

C. A flight crew member will keep a running record of flight numbers, takeoffs, landings, flight times, block in and block out times, fuel, and engine oil added in Services. He/she will enter all discrepancies found in-Services. He will enter rectification regarding test flight result and perform brake burning in. All turbine-engine Flight Monitoring Data will be recorded once each day under stable, level flight conditions.

D. The Captain will sign the maintenance log book sheet upon completion of all the flight.

E. Numbering of pilot reports on aircraft flight and maintenance log book pages is accomplished by placing a sequential number in the "NO." column on the left side of the discrepancy section, beginning with one (1) adjacent to the discrepancy on each aircraft flight and maintenance log book page.

8.1.6. Maintenance Responsibilities

A. Work accomplished during Schedule Inspections or higher-level maintenance do not require individual log book entries. The maintenance package is the record of compliance. On all other types of maintenance, a log book entry is required, in addition to completing the original paperwork issued in the package.

B. The Aircraft Flight and Maintenance log book and the DMI Log (form SCA/MTC/065) will be reviewed by the Pilot-in-Command before each flight and by maintenance personnel at each scheduled maintenance check.

C. An authorized engineer will enter all **discrepancies** or corrective actions he/she has taken regarding discrepancies. His/her signature in the corrective action column constitutes the airworthiness release required under CASR 135.709 B (2) (i), (ii), (iii), and (iv).

Maintenance entries involving RII maintenance will be signed off in the corrective action column following the corrective action statement by the certificated engineer correcting the discrepancies. These items must be inspected and identified by an authorized RII inspector. All inspections performed will be within the limitations of that individual's RII authorization. "RII accomplished" will be entered together with his name and Stamp. This will identify both the RII maintenance and the individual authorized to perform the inspection.

CAUTION: UNDER NO CIRCUMSTANCES WILL THE SAME PERSON PERFORM BOTH THE WORK AND THE REQUIRED INSPECTION.

D. Corrective Action Entries

(1) Entries made in the corrective action column will be preceded by:

- The associated discrepancy number in the "NO." column adjacent to the corrective action.
- The inbound flight number and 3-letter city identifier or 4-letter ICAO code of the station at which the corrective action was accomplished in the column adjacent to the corrective action.

(2) Entries made in the "Corrective Action Column" are as follows:

- Corrective actions in response to pilot reports.
- Clearing previously deferred defects (MEL, CDL, DMI Log).
- Transferring discrepancies to a non-routine work card.
- Recording component changes during scheduled or unscheduled maintenance or ground checks.
- Recording deferred defects transferred to the Defects Carried Forward Log.
- Information which may be useful for troubleshooting.

(3) When an item is placarded, the authorization for deferment also will be entered. Example; "Placard per MEL/CDL - placard installed".

(4) When an item is transferred to Defects Carried Forward Log status, the authorization for deferment should read, "Items not affecting airworthiness or safety transferred to DMI Log #___".

(5) When clearing a placard on another page, the placard description, originating aircraft flight and maintenance log book page, and discrepancy number will be entered in the discrepancy column. Corrective actions, parts replaced, and removal of the placard will be entered in the corrective action column.

(6) Aircraft components may be swapped for troubleshooting purposes on the same aircraft provided the following rules are followed:

- The discrepancy cannot be duplicated during a ground functional check using manufacturer's maintenance manual procedures.
- The engineer has verified that the component part numbers are applicable to the aircraft.
- The components are swapped between positions (not aircraft-to-aircraft).
- A successful ground check has been performed on swapped components using the manufacturer's maintenance manuals.
- The Aircraft Flight and Maintenance Log Book is documented as follows, in the corrective action column:

  "Ground checks good, could not duplicate problem, swapped (component name) for troubleshooting. Ground functional check performed per maintenance manual. (Ref.) Present S/Ns are position #1- 000000, position #2 - 000000.

(7) Following scheduled maintenance or RII maintenance, an authorized, airworthiness-release-certificated engineer will:

- Check that all discrepancies are properly cleared.
- Check that all component changes are properly recorded.
- Check that all engine oil and hydraulic fluid added during maintenance is recorded.
- Verify that all RII items are completed.
- Enter the type of scheduled maintenance performed and in the case of RII maintenance, enter "RII Accomplished" followed by the name and AME License Number of the Engineer in the RII signature block.

(E) Return To Service

Must be accomplished by individuals who have been authorized by Chief Inspector. An Airworthiness Release requires entry of a signature, stamp, UTC date, and type of maintenance accomplished.

Before signing the airworthiness release ensure that:

- Any deferred defect requires a signature under corrective action on the log form. Verify the Defects Carried Forward Log has been signed by the engineer accomplishing the corrective termination action.
- Verify corrective action block(s) on the appropriate log page(s) have been signed by the engineer(s) correcting the discrepancy.

8.2. MAINTENANCE DEFERRAL POLICY AND PROCEDURE

8.2.1. General

1. In order to maintain flight schedule integrity, it occasionally becomes necessary to defer the rectification of minor discrepancies to a more opportune time. Deferral shall be permitted under controlled conditions defined in the Company Manual System (Minimum Equipment List, and other technical manuals).
2. The Company Deferred Maintenance System (form : SCA/MTC/065) is documented with the use of the Deferred Maintenance Item (DMI) Log (part of the Aircraft Flight and Maintenance Log Book system) where deferred discrepancies are listed for Flight Crew information and used by Engineering & PPC Section to list and report the status of deferred items.
3. The Technical Department has the authority to defer items that meet 1 (one) or more of the following:
   a. The malfunctioning system or component is specifically addressed in the Minimum Equipment List (MEL) or Configuration Deviation List (CDL).
   b. The limitations for continued safe operation with the inoperative item are provided in the Company Manual System (Policy and Procedures Manual, Dispatch Deviation Guide, Minimum Equipment List).
   c. Addressed in Configuration Deviation List, aircraft Maintenance Manual, Structural Repair Manual, etc.
   d. The Item is of a non-airworthy nature. Non-Airworthiness items do not affect the continued safe operation of aircraft, and may therefore be differed the next maintenance opportunity. Such items are generally not specifically listed in the MEL Manuals.
4. If the item does not meet the above certified or if any question exists as to its suitability for defiles, the Chief Inspector must be contacted for further action.

8.2.2. Classification of Discrepancies.

1. For The purpose of deferrals, discrepancies may be classified as follows:
   a. Non-Airworthiness item

      These discrepancies do not affect the continued safe operation of aircraft, and may therefore be deferred until the next maintenance opportunity. Such items are generally not specifically listed in the MEL Manuals.

   b. MEL Items which require no maintenance or flight crew action

      These discrepancies do not require specific maintenance or flight crew action prior to deferral.

   c. MEL items which require placards

      These discrepancies require placards to be installed adjacent to the control or indicator of the affected Item. The Items are denoted by an asterisk (*) in the Remarks or Exceptions block of the MEL.

   d. MEL Items which require maintenance action

      These discrepancies require specific maintenance action prior to deferral. The letter “M” In the Remarks or Exceptions block of the MEL denotes the items.

e. MEL Items that require flight crew action These discrepancies require specific flight crew action prior to deferral and/or during operation of subsequent flights. The letter "O" in the Remarks or Exceptions block of the MEL denotes the Items.

2. MEL discrepancies also fall into 1 (one) of the following repair interval categories. The interval specify the maximum time prior to which the discrepancies must be repaired:
   - ***Category A*** - item in this category shall be rectified before the next flight or within the time interval specified in the "REMARKS " of the PT. Smart Cakrawala Aviation approved MEL.
   - ***Category B*** - Item in this category shall be rectified within 3 (there) consecutive calendar days (72 hours) excluding the calendar day the malfunction was recorded in Aircraft Flight and Maintenance Log.
   - ***Category C*** - Item in this category shall be rectified within 10 (ten) consecutive calendar days (240 hours) excluding the calendar day the malfunction was recorded in the Aircraft Flight and Maintenance Log.
   - ***Category D***. - in this category shall be rectified within 120 (one hundred twenty) consecutive calendar days (2880 hours) excluding the calendar day the malfunction was recorded in the Aircraft Flight and Maintenance Log.

8.2.3. Procedure to Clear MEL/DMI

1. Transfer the discrepancy from the Deferred Maintenance Items Log to the next open discrepancy block on the Aircraft Flight and Maintenance Log.
2. In the corrective action block annotate all work accomplished.
3. Fill in date, Station, ATA, P/N ON/OFF,SN ON/OFF.
4. Name of engineer performing the maintenance will legibly sign his/her name, and stamp.
5. Complete Deferred Maintenance Item Log and the rectification column deferred was corrected.
   a. Enter log page number discrepancy was corrected on.
   b. Enter station three-letter designator.
   c. Enter date.
   d. Enter legible signature and certificate number of mechanic performing the corrective action.
6. Send a copy of the log page to Technical Department.

8.2.4. The Deferred Maintenance Item (DMI) log (Form : SCA/MTC/014).

1. The DMI log is used by Technical Department Personnel as a control and planning document to defer discrepancies that are not of an airworthiness or safety of

flight nature, but require corrective action or follow-up.

2. The DMI log is prepared by Technical Department to:
   a. Defer a pilot report entered in the aircraft Flight and maintenance log;
   b. Defer a non-routine write-up number entered by maintenance or inspection in the Aircraft Flight and Maintenance Log;
   c. Defer a maintenance or inspection non-routine write-up during hangar or line maintenance;
   d. Permit follow-up of a Repeat Item;
   e. Provide trouble shooting or repair instructions to maintenance personnel;
   f. Determine condition or operational status of aircraft system or component.

3. If there is any question or doubt as to the deferability of an item, the Chief Inspector must be contacted for prior to preparation of a DMI log.
4. Usages and Disposition
   a. All work performed to clear a DMI must be documented in the Aircraft Flight and Maintenance Log Book system (DMI log, maintenance log) or other aircraft record form.
   b. DMI log will be issued for corrective action at appropriate maintenance opportunities (including maintenance and inspection work packages) by Aircraft Maintenance Subsection.
   c. Update and clearing of the DMI form;
   d. When DMI log are assigned to maintenance:
      1) All maintenance performed must be documented in aircraft records; therefore, maintenance personnel must enter corrective action taken in the Aircraft Flight and Maintenance Log, in the DMI Log, and any other applicable aircraft record forms.
      2) At home base, corrective action taken must also be entered on the DMI form and returned to Aircraft Maintenance Subsection as soon as possible, so that the DMI records may be cleared.
      3) At other stations corrective action taken must also be relayed to Aircraft Maintenance Subsection by telephone or telex as soon as possible, so that the DMI records may be cleared.
   e. When a DMI has been cleared or corrected, Technical Department will take the following actions:
      1) If the item is an MEL item, immediately notice Dispatch (clear applicable), close the item in DMI log.
      2) If the item is not an MEL/CDL item, Technical Department will close the item in the DMI log.
      3) Notify Chief Inspector as soon as possible that the DMI is cleared or corrected.
      4) The Chief Inspector will verify that DMI Corrective Action is documented in appropriate aircraft records.

f. The Deferred Maintenance item (DMI) Log is part of the Aircraft Maintenance Log Book system, and is used to:

1) Enable the flight crew to quickly determine the deferred maintenance status of aircraft;

2) Eliminate the need for the flight crew to duplicate discrepancy write-ups. The flight crew will know what items have already been reported and properly deferred;

3) Advise maintenance on the deferred maintenance status of the aircraft.

g. Personnel make DMI Log entries whenever aircraft is dispatched with an inoperative or malfunctioning unit or system.

8.3. MINIMUM EQUIPMENT LIST (M E L)

8.3.1. Requirement

Aircraft operated, an approved minimum equipment list (MEL) and, if it is available an approve configuration deviation list (CDL) will be kept in Engineering & PPC Unit.

True copy of approve Minimum Equipment List (MEL) should be onboard in aircraft.

8.3.2. MEL Management Program

Prior to any departure with any uncorrected defect items present on the aircraft, it must be coordinate between crew and maintenance personnel and then inserted to Aircraft Flight and Maintenance Log cover as hold item/DMI list.

Technical Department is responsible a method for tracking to determine MEL and other deferred items coordinate with unit concerned to ensure items will be rectified expeditiously.

Hold Item List / DMI should be reviewed monthly and/or pass through a MRB decision because of unavailability of parts. Maintenance personnel and aircraft at a specific time and place for rectification. MRB is a meeting conducted by Director, Operation Manager, Chief Pilot, Technical Manager, Chief Inspector, Safety Manager (if necessary), and DGCA - PMI assigned to review Hold Item List /DMI and solve the problem related to Hold Item List/DMI.

If there is a deviation or the use of the expired category MEL (inserted in the hold item list / DMI), then PT. Smart Cakrawala Aviation proposes a concession to the DGCA using the form : SCA / MTC / 004 - Concession for deviation of schedule maintenance requirement.

8.3.3. Procedures For MEL Extension

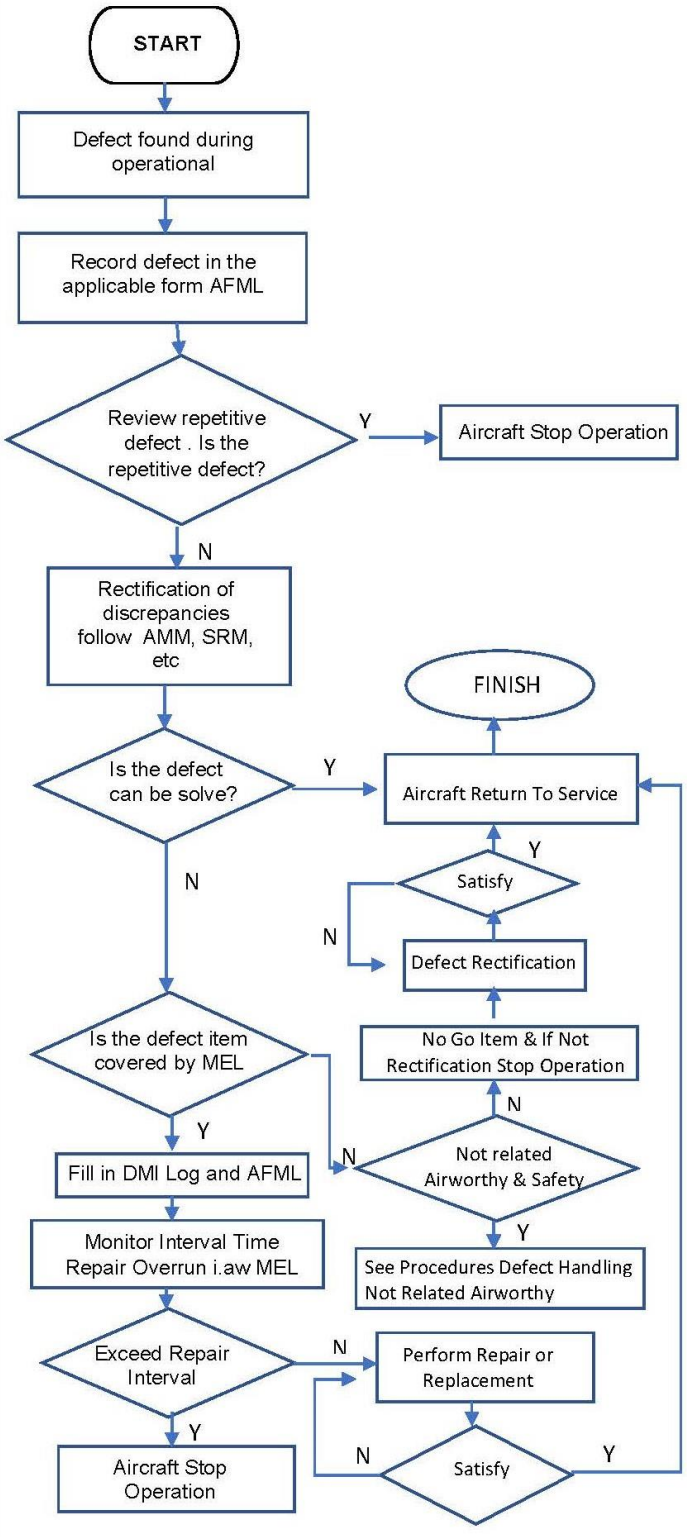
a. Request for extensions of time intervals for MEL items designated as Category “B” or “C” will be made by the Technical Manager before expiration of the MEL interval. The request will be documented on an “MEL Item Interval Extension” see form : SCA / MTC / 004
b. Each request must be approved by Operation Department and Chief Inspector, and accepted for implementation.
c. The extension may be applied immediately upon approval and acceptance.
d. The Chief Inspector shall notify the DGCA within twenty four (24) hours of extension approval.
e. The maximum period which may be approved shall be three (3) days for category B items and ten (10) days for category C items. Any further extension beyond this Intervals shall require DGCA approval prior to implementation.

8.4. AIRCRAFT DEFECT HANDLING DURING OPERATION

8.4. 1 Procedur

1. If defects are found through pilot complaints/pilot reports or during preflight and daily checks. The pilot or engineer records the defect finding into the Aircraft Flight Maintenance Log, at the same time the engineer evaluates whether the defect finding is included in the repetitive defect category. Evaluation procedure of repetitive defects refers to subchapters 8.4.2 .
2. If the defect finding is not categorized as a repetitive defect, the engineer is responsible for rectification defect finding at the first opportunity referring to the current Maintenance Manual.
3. If the defect finding cannot be rectified because of the limitations of the component parts and in extraordinary conditions (limited tools & equipment, personnel, etc.), then the engineer evaluates whether the defect finding is included/covered in the MEL Category or not, whether it has a direct impact on airworthiness . If covered in the MEL Category, rectification can be deffer according to the time limit stated in the MEL Category and must be recorded in the AFML and form Deffered Maintenance Item (DMI).
4. If the defect finding cannot be rectified for reasons as mentioned in point three above and the defect finding is not covered in the MEL Category and has a direct impact on Airworthiness, then the defect finding is categorized as a NO GO ITEM the aircraft may not be flight (aircraft stop operation) until the rectification is carried out properly and correctly in accordance with applicable procedures.
5. All activities with defect finding and rectification actions that have been carried out must be recorded in form DMI and form AFML and stored in accordance with applicable procedures

8.4.2 Flow Chart Aircraft Deffect Handling During Operational

FLOW PROCESS	DOCUMENT	RESPONSIBILITY
	AFML	Pilot/Engineer
	Procedure CMM subchapter 8.5.3	Engineer
	Current Maintenance Manual	Engineer
	MEL DMI Log form SCA/MTC/014 Procedure Defect Handling non Related Airworthy CMM subchapter	Engineer
	DMI Summary	Technical Manager & Engineering/PPC

8. 5 REPETITIVE DEFECT HANDLING

8.5.1 Safety Circular

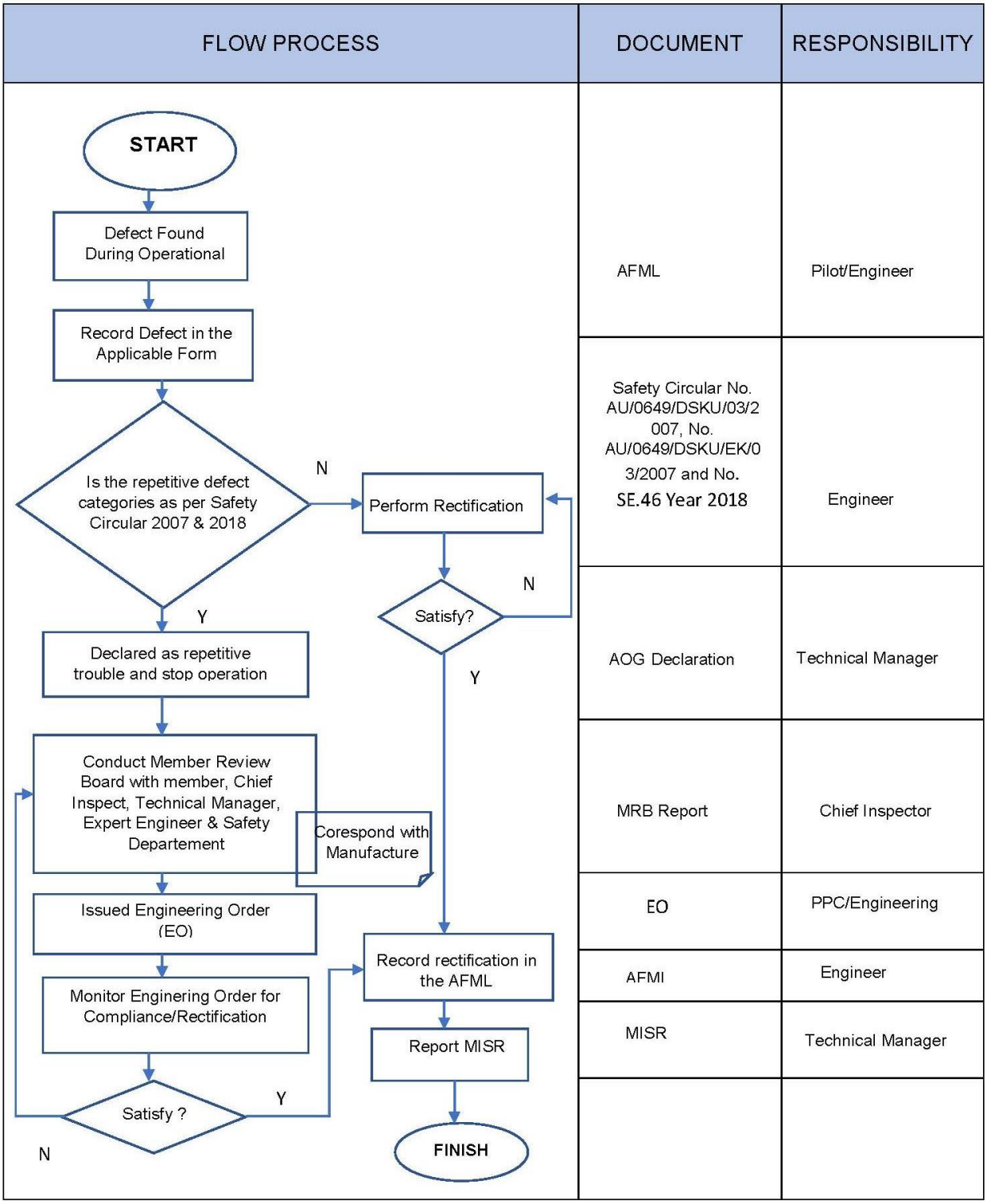
1. Safety Circular No. AU/0649/DSKU/03/2007 regarding restrictions on Repetitive Discrapancy Maintenance Items are limited as follows:
   a. Damage or technical interuption to a system that occurs repeatedly a maximum of 2 times occurs within 30 days, then directly into the DMI (Deferred Maintenance Item) management process by prioritizing rectification without further deffer of RII and all aircraft systems and components covered by ATA Code/Title : 21, 22, 24, 27, 28. 29, 31, 32, 34, 36, 45, 52, 53, 54, 55, 57, 61, 62, 63, 64, 67, 71, 72 , 73, 74, 75, 76, 77, 79, 80, 81, 85.
   b. Damage or technical interuption to a system repeatedly occurs 4 times within a period of 30 days, then it is immediately included in the DMI (Deffered Maintenance Item) management process by prioritizing rectification without deffer on the system and aircraft components outside/other than the ATA Code/Title on the item 1.a above

2. Safety Circular No. AU/5922/DSKU/EK/08/2007 regarding the limitation of Repetitive Discrapancy Maintenance Item Navigation System, damage or technical interuption to the navigation system is limited to a maximum of 2 times occurring within a period of 30 days, then it is immediately included in the DMI (deferred Maintenance Item) management process by prioritizing repairs without delay.
3. Safety Circular No. SE.46 of 2018 regarding the handling of repetitive technical problems (repetitive defects), which is defined that repetitive defects are technical interuption to a system that occur three times on one aircraft within a period of fifteen flight segments.

8.5.2 Procedure

1. Every technical problem (trouble) that is found through a pilot complaint/pilot report or during preflight and daily checks, the engineer is responsible for evaluating and analyzing in AFML whether the same damage has occurred during the intervals stated in the Safety Circular No. AU/0649/DSKU/03/2007, No. AU/0649/DSKU/EK/03/2007 and No. SE.46 Year 2018.
2. If the defect finding is not categorized as repetitive trouble, the engineer is responsible for making repairs at the first opportunity referring to the current Maintenance Manual.
3. If there is repetitive trouble and it is included in one of the categories according to the safety circular, the engineer does not carry out maintenance release of the aircraft until the rectification process has been carried out.
4. Write to AFML and stop operation/AOG
5. The Chief Inspector is responsible for implementing the Maintenance Review Board (MRB) with members of PPC/Engineering, expert engineers and the safety department. If necessary correspond with the vendor or manufacturer for the repetitive trouble rectification process.
6. The results of the Maintenance Review Board (MRB) are included in the MRB report.
7. PPC/Engineering is responsible for issuing repair instructions in the Form Engineering Order (EO).
8. Engineer is responsible for carrying out rectification referring to the Engineering Order (EO) and recording into AFML.
9. The Technical Manager is responsible for monitoring the entire repetitive trouble rectification process until the problem is declared closed.

8.5.3 Flow Chart Repetitive Defect Handling



9.1. GENERAL

9.1.1. Reference.

CASR 135.363, 135.709.

9.1.2. Introduction.

This section provides maintenance release procedures and for maintenance record entries in Aircraft Flight and Maintenance Log Book (Form SCA/MTC/013) and in the Certificate of Maintenance form (Form : SCA/MTC/049).

Aircraft are return to Services following maintenance by person specifically authorized to do so by Chief Inspector.

When returning the aircraft to Services, the authorized persons acts on behalf of Inspection, and is therefore certifying that the maintenance covered by release was accomplished in accordance with Maintenance Program.

Responsibility for each step of completed maintenance is borne by the individual signing for that step, while maintenance release certifies the total maintenance package.

MAINTENANCE RELEASE

9.2. MAINTENANCE RELEASE

9.2.1. Definition.

The maintenance release is mean a document which contains a certification conforming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedure described in maintenance organizations procedures manual or under an equivalent system.

9.2.2. Purpose.

1. The Maintenance release is used to release an aircraft from maintenance and includes a certification that work has been performed in accordance with Company Manuals;
2. That all required inspection items were inspected by an authorized person who made a determination that the work was satisfactorily completed;
3. That the aircraft is in condition for safe operation and that no known condition exists that would render the aircraft not airworthy.

9.2.3. Maintenance Release Requirements

Aircraft may be operated after maintenance, preventive maintenance (scheduled or unscheduled), alterations, or overhaul if the aircraft has a current Maintenance release. The Maintenance release exercised by PT. Smart Cakrawala Aviation to make sure it complies with the requirements of CASR Part. 43.9 (b), and authorized by CASR 43.7.(e).

a. All work accomplished is in accordance with the requirements contained in the PT. Smart Cakrawala Aviation Maintenance manuals/manufactures maintenance manuals, and all appropriate and necessary paperwork was reviewed and completed.
b. All items required to be inspected were inspected by an authorized person who made a determination that the work was satisfactory completed.
c. No known condition exists that would make the aircraft un-airworthy.
d. So far as the work performed, the aircraft is in a condition for safe operations.
e. The Maintenance Log was reviewed from the current date back to the last Maintenance release and each open item was reviewed.

9.2.4. Maintenance Release After Correction of pilot discrepancies

Return to services as maintenance release after correction of pilot discrepancies between flight schedule. Aircraft being released following correction of pilot discrepancies will be returned to Services by virtue of an PT. Smart Cakrawala Aviation Authorized person with Appropriate Authorization Ratings or an Appropriately Rated Authorized DGCA Approved Maintenance Organization certifying for the corrective action of each item (if the work is out of PT. Smart Cakrawala Aviation capability). The engineer signing off each item is responsible only for the proper completion and airworthiness of that individual item.

9.2.5. Maintenance Release After Completion By Sub Contract Maintenance Certificated under CASR 145

Aircraft Maintenance release After Completion by Sub Contract Maintenance Certificated Under CASR 145, aircraft being released following:

a. Contract Maintenance is defined as any person, other than PT. Smart Cakrawala Aviation employees, performing maintenance, preventive maintenance, repairs or alterations to PT. Smart Cakrawala Aviation aircraft or parts thereof.

b. Contract maintenance personnel signing a Maintenance release must have received PT. Smart Cakrawala Aviation Maintenance release procedure course, Company Authorization Release Authority issued by Chief Inspector.

c. Contract maintenance personnel will follow the procedures as called herein when signing Maintenance release.

9.2.6. Return to Services

Periodic Check has been accomplished by PT. Smart Cakrawala Aviation. The maintenance personnel certifying the aircraft airworthiness under the conditions noted above will complete the Maintenance release section of the Maintenance Log by legibly entering:

a. Type of Inspection.

b. The date and when the inspection was completed and the discrepancies were corrected.

c. The station at which the Services was accomplished.

d. Authorization Stamp.

e. His/her legible signature (first initial, last name).

9.3. COMPANY AUTHORIZATION (Form : SCA/MTC/031)

Certification of Authorization is issued to those maintenance personnel who have met the requirements and are authorized for signing the Maintenance release of aircraft, required inspection items (RII), engine run, and special purpose(W &B, Swing Compas,RTS, etc).

Scope of capability Authorization Engineer will shown on the "REMARK" column on the **COMPANY AUTHORIZATION (Form : SCA/MTC/031)** with the limitation inspection hours, month or year.

Requirement to receive initial authorization are as follows :

a. Hold valid a DGCA AME License with Airframe or Power Plant Ratings AMEL and have appropriate Training.
b. Human Factor training still valid.
c. Possess knowledge of PT. Smart Cakrawala Aviation inspection concepts and philosophies, have knowledge of the CASR's, Aircraft Manuals and all Manuals in PT. Smart Cakrawala Aviation which are already carrying out indoctrination training.
d. Chief Inspector should be assessment.
e. Authorization valid maximum for 3 years and or until AMEL licence expire, and or Determined by Chief Inspector.

Requirement to renewal authorization are as follow :

a. Hold valid a DGCA AME License with Airframe or Power Plant Ratings AMEL and have appropriate Training.
b. Human Factor training still valid.
c. Chief Inspector should be assessment.
d. Authorization valid maximum for 3 years and or until AMEL licence expire, and or Dertermined by Chief Inspector.

9.3.1. ONE-TIME AIRWORTHINESS AUTHORIZATION (Form : SCA/MTC/008)

Where there are requirements for Maintenance release Authorization at station where authorized personnel that not available, a One-time Maintenance Release Authorization may be issued by Chief Inspector

Technical Manager will contact Chief Inspector and arrange for a person to perform the Pre Flight, Post Flight or Maintenance release using the criteria:

1. Inspector
2. AME License Holder
3. Approved Aircraft Maintenance Organization (AMO).
4. Pilot In Charge

The Chief Inspector will provide direction to the person selected to perform the release with the understanding that the further down the list the more direction is required. This direction will be recorded on “Form : SCA/MTC/008)” by Chief Inspector and send to the person performing the Pre Flight, Post Flight or Maintenance Release.

NOTE: One time Maintenance Release applied for unscheduled Maintenance only.

9.4. AUTHORIZED PERSONNEL ROSTER (CASR 135.371)

1. PT. Smart Cakrawala Aviation will maintain a current listing of Authorizedpersonnel qualified to perform maintenance and Inspection.
2. List of persons authorized will be controlled by Chief Inspector in a current listing and attached in the Appendix B Inspection Personnel Roster List of this Company Maintenance Manual. (**Form : SCA/MTC/038**).

10.1. GENERAL

The material, parts, components and appliances used for maintenance of PT. Smart Cakrawala Aviation aircraft, engines, and components must comply with the standard and specifications of type certificate issued by the prime manufacturers.

Aircraft components received must comply with CASR Part 21 requirements, and accompany with an Airworthiness Release Certificate DGCA Form 21 – 18 or other form issued by foreign aviation authority (FAA. Form 8130-3, EASA Form One etc.). In addition part Class I product (Airframe, Engine and Propeller) shall be accompanied by airworthiness export certificate.

Aircraft part, raw material and standard parts must be accompanied with a certificate of conformance or any other documents traceable to Original Equipment Manufacturer (OEM), Part Manufacturer Approval (PMA), and holder of Technical Standard Order Approval (TSOA)

10.2. PARTS AND MATERIAL PROCUREMENT

When purchasing an aeronautical product, processes or maintenance, the Material Section issues purchasing data sufficient to ensure all requirements are met.

Any delivered product or Services shall meets or exceeds the desired quality and is readily verifiable through accompanying conformity data, records or otherwise. The Chief Inspector is responsible to conduct conformity inspection and in airworthy condition for safe operation.

Prior to initiation of contracts for purchase of goods or Services, the Material Section is responsible to ensure that clearance is obtained from Chief Inspector before forwarding to the Technical Manager for Approval.

10.2.1. Purchasing of Part and Material.

PT Smart Cakrawala Aviation should be obtain the aeronautical products from:

1. A manufacturer of aeronautical products.
2. A manufacturer who produces, identifies and certifies standard parts and materials
   i. which conform to established industrial, national or international standards, and
   ii. which are referenced in approved design data.
3. An organization approved either by DGCA, or Foreign Civil Aviation Authority under CASR part 145, subpart F, to perform maintenance on aeronautical products and who is authorized to certify such products as serviceable and in a condition for safe operation.
4. A supplier who provides original certification of product conformity to approved design data for supplies acquired from authorized sources.

A certificate holder under this part must ensure that the source of aeronautical products has the organization, facilities, equipment and the personnel necessary to comply with the policies, responsibilities, methods and procedures established in his product quality control system .

Due to the high number of unapproved aircraft parts and material coming into the aviation community, the following procedure will be used to detect and, report suspected unapproved items before they enter into the PT. Smart Cakrawala Aviation system.

1. Purchasing will establish qualified suppliers through vendor's audits and material certification.
2. All aircraft parts and material will be received through the receiving inspection procedure as outlined earlier in this chapter.
3. Criteria to identify and screen potential suppliers of unapproved parts and materials.

a. Quoted price or price advertised is significantly lower than the price quoted by other suppliers of the same part.
b. Inabilities of a supplier to provide drawings, specifications, overhaul manuals, substantiating data demonstrating the conformity of the part.
c. The inability of a supplier or AMO to provide evidence of approval for the part.
d. Sales quotes or discussions that create the perception that unlimited supplies of parts, components or material are available to the end user.
e. The Chief Inspector will be notified on all suspected unapproved parts.

10.2.2. Material / Parts Request

Policy

a. The Material / Parts Request shall be completed each time a part, item, or other material is requested.
b. The Material / Parts Request Form **:** SCA/MTC/019 will be forwarded completed forms to Material section, which will then check for accuracy and completeness and then forward it to stores. A copy will be maintained at the station.
c. PT. Smart Cakrawala Aviation form or similar computer generated form, will be filled out entirely.

10.2.3. Material / Stores Log Book (form : SCA/MTC/020)

1. Policy

   The Material Section under supervision of Chief Maintenance will issue material log, it will be generated whenever any item is issued from the

   materials inventory. This ensures proper accounting and audit trails for the management of the PT. Smart Cakrawala Aviation.

2. Procedure

   Each and every time an item is issued from materials, an annotation will be made on the materials logbook by the Store personnel issuing the item. The form will be retained by materials, indefinitely. The material/store log book will contain the following information:

   a. Date
   b. Part Nomenclature
   c. Part Number
   d. Serial Number
   e. Quantity Issued
   f. Aircraft Registration Marking
   g. Issued to (Name and Employee Number)
   h. P.O. or Invoice Number
   i. Remarks

10.3. PARTS AND MATERIALS INSPECTION

All incoming materials, hardware, parts, component, equipment and other products procured for uses by PT. Smart Cakrawala Aviation are subject to receiving inspection by inspection unit. The inspection and document review is assure conformance to the specification and identity of the part number, purchase order, quantity, quality, dimensions, state of preservation and detect any shipping damage or deterioration or other applicable airworthiness requirements.

In addition of that documentation, raw material and fastener shall be accompanied with test report. A record of material receiving inspections will be made on Receiving Inspection Record.

Any materials that fail to meet those applicable specifications will be reported using Material Inspection Report listing the discrepancies. To preclude those parts from being used, non-conformance material will be red tagged with Non-conformance Label, held in Quarantine Store until the proper documentation is obtained, or return to vendor, or any other decision as appropriate.

Suspected unapproved part shall be identified as non-conform material, held in Quarantine Store, pending final disposition. Any suspected unapproved parts would be reported to the DGCA in accordance with procedure acceptable to the DGCA.

10.3.1. Responsibility Part/Material Handling.

1. Receiving Inspection.
   a. All aircraft related parts/material will be subjected to receiving inspection.
   b. The person performing the receiving inspection is functionally responsible to Inspection Unit.
   c. All items processed through receiving must be annotated on the Parts Receiving Log.

2. The Material Section under supervision of Aircraft Maintenance Supervisor will be responsible for the following:
   a. All bins, cribs, shelves and other means of parts storage will be clearly and properly marked as to contents.
   b. All parts and components will be protected from damage during handling or storage: applicable protective packages will be used to protect parts from dirt, moisture and foreign objects.
   c. Routing of Parts/Supplies received through Stores or Receiving, Inspection as required.
   d. Routing documents/tags accompanying parts/supplies to the applicable source.
   e. Issued Serviceable Tag, after material and component inspection and test under control by Inspection Unit

3. Parts Requiring Special Handling
   a. All transponder (Mode S & Mode C) will require Serviceable tag attached at time of receiving to notify the installer that the component requires special testing to comply

with CASR.

b. Avionics equipment and instruments are the materials that will be stored in a clean, dust-free, humidity-controlled atmosphere. Units requiring storage in special static bags will remain in these bags until installed in the aircraft. (Return the static bag to materials for possible re-use). Static sensitive units

can be recognized by the placard.

c. If a humidity-controlled atmosphere is not available, these units will be sealed with desiccant in plastic or other suitable wrapping. Sealed package will not be opened until used.

10.3.2. Receiving Inspection and Unapproved Parts Detection

1. **Receiving Inspection Methods and Standards**

a. General

Receiving Inspection will be performed on all parts, materials and components by PT. Smart Cakrawala Aviation receiving inspector at head office or base maintenance for proper certification before it is delivered to maintenance base or out station base.. At maintenance base or outstation base it will be re-inspect by inspector or engineer in charge for proper certification documents before it is kept in the store or installed on the aircraft. Qualification to perform a receiving inspection is to have Company Maintenance Manual training and OJT by a qualified Inspector. Parts, materials, and components will be inspected for proper certifications, authenticity (counterfeit / unapproved parts), proper packaging and damage. The receiving inspection is recorded on the Receiving Inspection Report Form : SCA/MTC/016.

Receiving inspector will issued serviceable tag Form: SCA/MTC/022 once he/she completed receiving inspection

b. Inspect for Counterfeit / Unapproved Parts

- Visually inspect to determine if the product container reveals that it has been marked with another supplier's name, is unmarked or damaged.
- Cross check P.O. or R.O. as applicable with delivery receipt for proper part number or component history tear down report.
- Check that life limit shelf life is not exceeded.
- Visually inspect for abnormalities (e.g. altered or unusual surfaces, absence of required plating, evidence of prior use, scratches, new paint over old, attempted exterior repairs, fretting or corrosion, poor machining.
- Each shipment of nuts, bolts, rivets or other standard hardware received in quantities will be randomly sampled and inspected per above methods as applicable.
- Raw material, sheet metal, bar stock, tubing etc., ensure certification can be traced back to manufacturing and inspect for condition, identification marking (deterioration and corrosion).

c. Overhauled or Repaired Components

The following is the policy and procedures to be used when aircraft engines, appliances or components are sent to a Repair Agency for overhaul, repair, and/or maintenance checks.

In order to insure proper and accurate repair, data is collected and analyzed in accordance with the PT. Smart Cakrawala Aviation Continuing Analysis and Surveillance Program. A vendor tear down report must be received when applicable. On time controlled components, Time Since Overhaul (TSO) must be established and annotated on the Serviceable tag.

2. **Part Certification Requirements**

a. Parts, components and appliances purchased and/or returned to Services by the following acceptable vendor types may be received and placed in stock provided the associated certification requirements are satisfied. All material certifications will be filed by serial number and retained in the materials department.

NOTE : Shipping document or invoice identifying the source of procurement is required on all received parts and materials. Part and serial numbers must be clearly visible on parts or packages of parts.

CAUTION: Those appliances (Parts or components) to which Airworthiness Directives apply shall be accompanied by appropriate certification of AD compliance.

VENDOR TYPE	CERTIFICATION REQUIREMENTS
Prime Manufacturer	1) TSO number, if applicable 2) Shop function test, if applicable
Original Equipment Manufacturer (OEM)	1) TSO number, if applicable 2) STC number, if applicable
Vendor with Part Manufacture	1) PMA number in evidence on part or package of parts. 2) STC number, if applicable.
Vendor with License Agreement	1) Signed statement that manufacture is in accordance with license agreement with a prime manufacturer. 2) TSO number, if applicable.
DGCA Approved Maintenance Organization	1) CASR repair station tag attached to each part or package of parts. 2) TSO number, if applicable. 3) STC statement, if applicable. 4) Vendor work order listed.
DGCA Certified Air Carrier	Air carrier Serviceable tag attached to all routable
General Material Vendor	1) Miscellaneous standard hardware and material conforming to industry standards, such as nuts,

	bolts, electrical tubes, transistors, etc. are not subject to certification requirements. 2) Material used in aircraft interiors for floor coverings, draperies, thermal and acoustical insulation, wall panels and cargo pit liners, must be certified for compliance with CASR

b. Import Approval of Engine, Materials, Parts and Appliances

1. All newly manufactured parts, components and materials shipped from a foreign country in addition to parts certifications shall have an export C of A or EASA form one or FAA form 8130 or other equivalent Airworthiness

   Approval Tag (issued by the country of manufacturer) before that part, component or material can be used on PT. Smart Cakrawala Aviation aircraft.

2. When receiving a part, component, or material from a foreign country, the receiving inspector filling out the PT. Smart Cakrawala Aviation Maintenance parts tag will enter the Certificate of Airworthiness for Export number in the block titled Shop No. The Certificate of Airworthiness for Export document will then be filed with the Purchase Order (P.O.) (form : SCA/MTC/036) where it will be retained for the life of the parts, component, or material.

   CAUTION:

   ONE CERTIFICATE OF AIRWORTHINESS FOR EXPORT DOCUMENT MAY HAVE SEVERAL PARTS, COMPONENTS, OR MATERIALS LISTED ON IT. THEREFORE, PARTS TAGS MAY REFERENCE THE SAME DOCUMENT NUMBER

3. EASA Form 1 is a standard document used in European. EASA Form 1 is used for export purposes and serves as an official certificate for the delivery of parts from the manufacturer/maintenance organization to users.

   EASA Form 1 may be supplied with new parts or certify approval of repair or overhaul performed.

   EASA does not cover airworthiness, i.e., repair or overhaul. For items repaired or overhauled in a EASA member country, EASA Form 1 must be returned to Services by DGCA Approved Maintenance Organization (AMO) Certified Repair Station rated for the work accomplished.

   In the case of “new” material, the EASA Form 1 may be issued along with an invoice, packing slip, or other supporting documentation from the supplier that the material was sold in new condition.

3. **Part/Distribution**

a. Part Installation / Removal

1)The engineer performing the part change will complete the appropriate part tag.

2)The engineer performing the part change will make the proper entry on the Aircraft Flight and Maintenance Log (form : SCA/MTC/013).

3)The Engineer performing the part change will insure proper recording of serial number and part number on the Maintenance Log and Part Tag.

4). the Engineer and/or supervisor will ensure:

a) That the Serviceable Part Tag (form : SCA/MTC/022) is attached to the original work card and forwarded to Engineering & PPC Section in accordance with prescribed procedures.

b) The red - Unserviceable tag (form : SCA/MTC/023) will be affixed to the U/S unit only.

b. Part Routing

1) The Material section will be responsible for returning all removed parts (properly tagged) to materials.

2) The Material section issue a slip that will be completed by the material personnel and a copy forwarded to Purchasing for inventory updating.

10.3.3. Receiving Rejection Report (Form: SCA/MTC/016)

1. Policy

a. All material destined to be used on any aircraft must be inspected for condition, operation as necessary, correct part number or type, and conditions of overhaul or repair as pertains to shelf-life or Services life.

b. The Receiving Inspection Rejection Report is initiated by the Receiving Inspector any time a component, accessory or stock item is received from an outside vendor that does not meet PT. Smart Cakrawala Aviation standards.

c. It is the Material Section's responsibility to return any rejected material to the vendor for credit or replacement.

2. Procedures

The Receiving Inspector shall generate a Receiving Rejection Report, any time a part, component, appliance, or item fails receiving inspection.

The Inspector will use Form**: SCA/MTC/016 for reject the aeronautical product**

10.3.4. Re-certification of Expired Parts

1. Receiving Inspection

All of material returned to Receiving Inspection for expiration of shelf life will be routed to authorized applicable maintenance and overhaul agency or in-house shop, as applicable.

2. Procedures

All material after being received by the respective overhaul shop or contract agency will then be subjected to the following procedures:

a. Visual check of unit to determine apparent condition.

b. Perform functional bench test of unit according to original overhaul and test form instruction. Fill out and complete required functional test portion of the applicable overhaul form, certifying to accomplishment.

c. The material after being tested as described above, being found Serviceable, will then have a new Serviceable tag attached, properly filled out and signed, and will then be routed back to Parts and Receiving Inspection.

10.3.5. Disposition of Unserviceable Components

All parts, components, routable which are removed from an aircraft, either scheduled or unscheduled will be returned to material.

1. Units to be returned to material will be properly tagged.
2. Before the unit is returned to the overhaul vendor, all hardware will be removed, maintenance will assist in removal. Hardware will be inspected for condition to determine if it can be reused. All hardware must be tagged.
3. The hardware will be boxed/bagged and identified for the specific unit, using serial number of the component.
4. Stores supervisor will prepare the repair order, properly package the unit and send the unit to an approved vendor – for bench check, repair, and overhaul. etc.
5. Upon return from the vendor after overhaul/repair, the material will go through receiving inspection.

10.3.6. Emergency Equipment Inspection Procedures

1. Emergency equipment will be inspected at regular intervals in accordance with the inspection program and when they are found without the required Emergency Equipment Tag (form : SCA/MTC/024).
2. Under no circumstances is a due date to be changed on a tag. A new tag must always be made out, which will indicate the new due date.
3. The following procedures are to inspect and monitoring items of emergency equipment for continued Services, all items inserted to form : SCA/MTC/023.

a.	Crew Life Vests	Check for general condition and security.
b.	Crash Axe	Check for general condition and security.
c.	First Aid Kit	Check for general condition, security, and presence of a seal. If satisfactory, install emergency equipment tag. When a seal is found broken and a replacement kit is not available, the contents may be checked for condition and replenished according to the following inventory requirement. The kit may then be re-sealed and a tag attached.

10.3.7. Disposition of Parts and Materials Removed From Aircraft or Engine

Engineer in charge will issue Serviceable Part Tag (form : SCA/MTC/022) or Unserviceable tag (form : SCA/MTC/023) when removed parts from the aircraft or Engine.

1. Expendable Items

   All expendable parts such as fuel and oil hoses, nuts, bolts and screws, etc., removed from an aircraft and found to be defective will immediately be

discarded. If related to an incident or requires review for a MRR, SDR (form : SCA/MTC/053) or MIS (form : SCA/MTC/011), disposition instructions will be issued by Chief Inspector.

2. Non-expendable items
   a. Non-expendable items such as accessories, instruments, etc., removed from an aircraft will be identified with an Unserviceable Tag as outlined in this chapter.
   b. Contact Inspector for disposition instructions.
   c. All openings will be plugged or taped over immediately.

10.3.8. Scrapped Parts

1. Policy

   Scrap parts will be properly tagged and signed by the Chief Inspector and placed in a secured area. All Scrap parts will be physically mutilated to render them unserviceable or un-repairable pending final disposal.

2. Scrapped Tag (form : SCA/MTC/018)
   a. Policy

      The Scrap Part Tag, as the name implies, is attached to any component or part removed from an aircraft and found to be damaged beyond repair.

   b. Procedure

      This Tag will be completely filled out by the Engineer and signed by Chief Inspector.

10.4. STORAGE PROCEDURE

10.4.1. General

This procedure applies to the handling, storage and tagging of aircraft components and materials with appropriate tagging and / or labeling and prior to for the issue of parts and materials to user.

10.4.2. Procedures

a. The whole store is a bonded store with the exception of a totally segregated area as Quarantine area.

b. Storage area shall be categorized into environmentally and non-environmentally control areas. Storage of all parts and materials shall be in accordance to the instructions of the manufacturer and in the absence of such instructions, standard industries leaflet.

c. Storage area must be clean and suitably enclosed to prevent entry of dust and other contaminant.

d. All aviation parts and materials shall be preserved as per manufacturer's recommendation and appropriately packed.

e. Aircraft parts components which are delicate and / or vibration sensitive shall be packed in ATA specification 200 containers.

f. Avionics parts and components which are electrostatic sensitive shall be packed and stored in approved static shielding containers or packages and shall be appropriately identified.

g. Engines, Propeler, landing gears and other large parts or components shall be stored as per manufacturer's recommendation and procedures.

h. Storage of ignitable cartridges shall be in locked steel cabinets.

i. Storage of compressed gas cylinders shall be in fire/explosion proof storage area.

j. Control and monitor of shelf life for all parts and materials in storage shall be the responsibility of the Spare parts & Component Executive.

k. Audit/Surveillance on parts and materials in the bonded stores shall be carried out by Inspection Unit to ensure correct storage and segregation of parts and materials. Spot check will be carried out to check shelf life expiry date. Expired parts and materials shall be promptly removed and quarantined.

l. Parts shall be placed in storage bins and placed on supported racks.

m. Stores must be clearly marked with "STORES - Authorized Access Only".

10.5. SHELF LIFE CONTROL

10.5.1. General

Shelf life limits for materials, parts and components will be established using manufacturers' recommendations and industry standards. These limits will be monitored by PT. Smart Cakrawala Aviation materials section under supervision of Aircraft Maintenance Supervisor.

Responsible storage personnel shall check those items periodically, any item that found exceed storage time limit, shall be segregated to being used. Expired component will be routed to the respective workshop for re-inspection or overhaul in accordance with applicable manufacturer maintenance manual. Expired consumable parts or material will be rejected, and destroyed.

10.5.2. Control of Shelf Life Units

The Material Section will be responsible for the rotation of all parts:

a. Inspection of Serviceable components in the Company Stores for shelf life condition and protection shall be made monthly within the first ten (10) days of each month by Stores Personnel. The record of such inspection shall be maintained by the Material Section using form : SCA/MTC/021.

b. For rotation purposes, the date of last shop visit or date when part was received will be used.

c. Shelf life will expire when the time in months as shown is exceeded; starting with the date of the last shop visit or date parts was received new.

d. All compressed gas cylinder usually requires a periodic hydrostatic test if re-servicing is needed and the test date is due, **DO NOT USE THIS CYLINDER.**

10.5.3. Shelf Life Limits

1. SEALANTS, RTV's, HOSES, ETC will be stored and assigned a shelf life, if applicable in accordance with the manufacturer's specifications.
2. RUBBER OR SYNTHETIC RUBBER SEALS, PACKING and "O"-RINGS – will be individually packaged in sealed containers and stored in such a manner that they are protected from sunlight, excessive heat, and physical damage. Shelf Life is assigned in accordance with the manufacturers recommendations. These items must be visually inspected for obvious physical defects such as distortion, cracking, a loss of re-sealance, before installation.
3. MISCELLANEOUS BULK RUBBER ITEMS. Rubberized parts such as grommets, connection boots, chafing pads, door and window seals have no specific shelf life assigned. These items are package and stored to provide protection against effects of environmental and physical damage and are inspected monthly to assure continued Serviceability.
4. EMERGENCY EQUIPMENT – All emergency equipment is assigned a shelf life in accordance with manufacturer's recommendations.

10.6. PARTS AND MATERIAL IDENTIFICATION SYSTEM

PT. Smart Cakrawala Aviation Inventory Tag as Serviceable status will be used to identify aircraft components and accompanied by copy of Airworthiness Release Certificate Form DGCA 21-18, EASA Form One, FAA Form 8130-3 .Half of this Tag is also use for failure or defect removable part or component from aircraft after test or flight squawk.

The original documents from manufacturers, repair station or supplier are kept by Technical Manager.

10.6.1. Part Tags

a. Part Tags are used to record information concerning the installation data regarding Serviceable parts and removal data of repairable parts. The Tags are designed with distinguishing colors to make each easily identifiable.

b. Each tag shall be filled in by a PT. Smart Cakrawala Aviation engineer in accordance with the following procedures.

c. All tags and paperwork shall remain with the part until it is installed on an aircraft.

All tags will then be attached to the appropriate work card/log page.

i.Serviceable Tags (Form : SCA/MTC/022) and Unserviceable Tags ”
(Form : SCA/MTC/032).

“**Serviceable Tag**” (Form : SCA/MTC/022). (**Color Green**).

“**UnServiceable Tag** (**Color Red**)

ii.Warning Tag (Color White)

a. The Warning Tag is used to prevent release of aircraft for dispatch when work remains unfinished in an inconspicuous area.

b. Proper use of tag can prevent injury to personnel or damage to aircraft components while maintenance work is being performed on their controls or on related units.

c. The tag must always be placed in a conspicuous and logical location on aircraft when parts are removed, or components are disassembled in obscure places.

d. Typical examples of tag’s use are:

1). Part removed from landing gear – tag tied on landing gear operating lever.

2). Part of electrical system disassembled – tag tied to electrical master switch, or to individual switch controlling unit involved.

3). Part removed from inside wing – tag tied to ***closest*** inspection door.

4). Part removed from inside fuselage – tag tied to the location where the component/part is being removed.

5). Part removed from control system or when integrity of control cables or hydraulic, fuel, or similar systems have been destroyed by braking safeties or opening lines in inconspicuous places, which without special

control and at access door to removed or disconnected component.

10.6.2. Equipment Tag

1. **Policy**

The Emergency Equipment Placards (form: SCA/MTC/24) used on life rafts, life vests, First Aid Kits, power megaphones, portable emergency transmitters, oxygen bottles, and portable fire extinguisher bottles serves two purposes.

a. They indicate that the unit it is installed on has been overhauled/ inspected/ functionally checked or weighed as applicable to the unit in accordance with the approved overhaul/ inspection time.

b. They also indicate by means of a "Next Checked" on the Placards that the unit is due to be removed from the aircraft on or before the due date for overhaul or inspection.

2. **Procedures**

a. Receiving

When any of the above units are received from an overhaul agency, a PT. Smart Cakrawala Aviation Emergency Equipment Records.

b. Installing unit on the Aircraft

1). Check that the unit is in good condition.

2). Add the aircraft location onboard to Tag if not previously added.

11.1. GENERAL.

(a) PT. Smart Cakrawala Aviation regulates aircraft Weight & Balance in accordance with CASR Part 135 and information from Advisory Circular 120-27 regarding 'Weight Control of Aircraft' and the Company Maintenance Manual.

(b) The weight and balance control accomplishment and record ensure that PT. SCA's aircraft remain within manufacturer standard weight and center of gravity limitation for typical flight and ground operations.

(c) Weighing procedure will be carried out in accordance with the appropriate Aircraft Maintenance Manual / Pilot Operating Handbook / Aircraft Flight Manual / Rotor Flight Manual.

(d) Chief Inspector is responsible to control up-dating the individual aircraft Weight & Balance.

(e) Weight and Balance calculation record (either Aircraft Weight or C.G. Determination Form SCA/MTC/025) must be performed by authorized person and shall be checked by authorized type rated engineer and approved by Chief Inspector.

(f) Chief Inspector may delegate duties assigned to him to any qualified inspector to review and approve the weighing result.

(g) The weighing equipment must be current calibrated, shown with properly tagging. The hangar space and required equipment such as jacks, adapters, leveling equipment and scales must be completing available for weighing.

11.2. METHODS FOR MAINTAINING OF AIRCRAFT WEIGHING

a. The mass and CG position of each aircraft shall be re-established by:
   1. Weighing;
      (a) At least once every 60 calendar months for single engine aircraft and 36 months for multi engine aircrafts;
      (b) After major repair or major modification, or when the additional or reduction weight has exceeded 0.5% of minimum landing weight;
      (c) When the empty CG has changed more than 0.5% of the mean aerodynamic chord (MAC);
      (d) When the adequate weight control record has not been exercised over an aircraft after modification.
   2. Calculation;

   If PT. SCA is be able to provide the necessary justification to prove the validity of the method of calculation chosen, whenever the cumulative changes to the dry operating mass exceed +/- 0,5 % of the maximum landing mass or the cumulative change in CG position exceeds 0,5 % of the Mean Aerodynamic Chord.

b. The accumulated effects of modifications and repairs on the weight and balance must be accounted for and properly documented, provided;
   (a) Aircraft must be re-weighed if the effect of modifications on the weight and balance is not accurately known.
   (b) New aircraft are normally weighed at the factory and are eligible to be placed into operation without re-weighing if the weight and balance records have been adjusted for alterations or modifications to the aircraft.
   (c) Aircraft transferred from other operator without an approved program need not to be weighed prior to use by the PT. SCA.
   (d) Aircraft transferred from other operator with an approved program need not to be weighed prior to use by the PT. SCA.
   (e) Weighing must be accomplished either by the PT. SCA or by an Approved Maintenance Organization.

11.3. AIRCRAFT WEIGHING ACCOMPLISHMENT

a. For aircraft weighing;

Shall be performs in accordance with Approved and Applicable methods. (either in Aircraft Maintenance Manual or Aircraft Flight Manual).

b. For weighing tool/kit;

Shall be performs using Proper; Approved; and Applicable equipment has already called out by its respective manual.

Note:

1) Weighing should be accomplished in an enclosed building or hangar to minimize or avoiding the wind gust effect, which could result un-reliable weight scale reading.
2) The Aircraft Standard Equipment (Removable Equipment) must be including in weighing calculation, thus, is a part of basic weight.

c. General Jacking Procedures

1) All jacks should be properly rated for the job for which they are being used. They should be in good working order.
2) Make certain that maximum permissible total weight of aircraft for jacking or maximum permissible load on each jacking points must not exceeded.
3) Place jack firmly on a flat surface. Correctly position jack under the aircraft jack points, as identified by the manufacturer for detail see applicable AMM ATA 7.
4) Alert all personnel in the area of the jacking operation and/or by installing “Aircraft on Jack”
5) Make sure that the area around the aircraft, on all sides, is clear, in case one or more jacks fail under the load or the aircraft moves off the jack points.
6) After the aircraft is jacked to the desired height, make sure that jacking controls are protected from accidental operation.
7) Before jacking, make certain that aircraft/helicopter stability is ensured.
8) Prior to jacking, fuel load shall be drained, or in full (see proper reference)
9) Make sure that landing gears are in down lock position; safety pins are installed during lowering aircraft.
10) Release parking brakes and removed wheel chocks when jacking aircraft.
11) Alert all personnel of the test. Check that no personnel are working in the wheel well area.

    Begin test only when the area is clear and posted with appropriate sign.
12) After swing test: warn all personnel before aircraft / helicopter is lowered.

d. General Weighing Procedures

1) The weighing equipment calibration record and validity conform still valid.
2) The aircraft shall be placed in the inside the hangar and shall be no wind.
3) The aircraft shall be in clean condition inside and outside from all items that not require for empty weight calculation.
4) All flight control surfaces are secured in neutral position.
5) All items listed in the empty weight calculation list to be installed and checked.

11.4. WEIGHT CONFIGURATIONS

Aircraft will be weighed in a ready to fly configuration, including:

1. Doors.
2. Full hydraulic oil.
3. Full engine oil.
4. Fuel tanks either full or completely drained or fuel calculated
5. Fixed ballast - optional.
6. Emergency Equipment.
7. Aircraft Documents and Manuals (if any)
8. Etc.

11.4.1. CONFIGURATIONS

PT. SCA will issue W&B reports base on each aircraft operation such as; passengers, cargo, or aerial survey. Each aircraft may have more than one W&B reports.
Basic Passenger configuration on every aircraft refer to Pilot Operating Handbook / Aircraft Flight Manual / Rotor Flight Manual.

11.5. RECORDING AND CALCULATION

Form SCA/MTC/025 will be show full details called for by the form including those items relating to weighing configuration which would not be shown on the equipment list. The form will be signed by the officer supervising the weighing. The empty weight as defined bellow will be calculated on page 3 of the form mention above. An equipment list will be prepared at the time of weighing, to reflect the weighing configuration.

11.6. EMPTY WEIGHT

Empty weight (basic empty weight) will include the following:

1. Single or dual pilot controls.
2. Door installed.
3. Unusable system fuel.
4. Full hydraulic oil.
5. Full engine oil, including system.
6. Fixed ballast as determined necessary following the initial determination of empty weight.
7. All equipment as per equipment list.

11.7. EQUIPMENT LIST (Form : SCA/MTC/056)

An equipment list will be prepared for aircraft at the time of weighing. All equipment fitted at the time of the weighing is “V” marked and the one not fitted will be “O” marked. Amount and location of ballast, if fitted at the time of weighing, will be shown. The equipment list will be attached to Form SCA/MTC/025 or latest Form Revision.

11.8. REPORTS AND DISTRIBUTION

After completion of weight & balance the new calculation result shall be approved by chief inspector or inspector then the report must be on boarded to the aircraft, and weight & balance copies shall be distributed to Operation Manager, Chief pilot and Head of Flight Operation Officer and one copy keep in the Aircraft Document binder at the Technical Record.

12.1. GENERAL

A. This section provides a description of, and the responsibilities related to, the PT. Smart Cakrawala Aviation Continuing Analysis and Surveillance Program, as required by CASR 135.373. The program serves to ensure the adequacy of the Continuous Airworthiness Maintenance Program and to confirm that it is being properly controlled and adhered to.

B. The continuing analysis and surveillance program is designed to monitor, operation and personnel for effectiveness of continuing airworthiness maintenance program are conformance to the technical standard and company policy procedures with the objective of maintaining the highest standards of airworthiness and safety. Any deficiency is corrected in timely manner.

C. The continuing analysis and surveillance also includes a system of data collection and analysis. The analysis of collected data is typically charted to monitor trends and to support the condition monitoring process. PT. Smart Cakrawala Aviation has Maintenance forecast to satisfy the requirements for data collection and analysis. Chief Inspector is responsible for establishing and to monitor compliance with requirements of Indonesia DGCA.

D. Responsibility for the analysis and surveillance program is shared between the various Technical Departments primarily consisting of Technical Manager, Chief Inspector and Technical Support.

E. The continuing analysis and surveillance regarding audit functions refer to Quality Management System (QMS) Manual chapter 4 Quality Assurance program.

12.2. DATA COLLECTIONS AND ANALYSIS

12.2.1 SOURCE OF DATA

Data can be generated as reports and records, or teardown analysis and the result of an abnormality in the operation.

Operation:

(1) Pilots report on Flight Maintenance Log
(2) Delays caused by Technical aspect
(3) Cancellation caused by Technical aspect
(4) Engine in flight shut down (IFSD)
(5) AOG caused by Technical aspect
(6) RTA / RTB caused by Technical aspect

Maintenance:

(1) Defect reports on Aircraft Maintenance Log
(2) Un-scheduled component replacement
(3) Maintenance Program changes.
(4) Maintenance Process changes.
(5) Engine trend

Workshop:

(1) Teardown reports
(2) Corrective action by workshop
(3) Confirmed failure
(4) Bench check, NDT reports, functional test

Manufacturer:

(1) Service Bulletin
(2) Manual related to aircraft / system / power plant / component
(3) Modification / Alterations
(4) Changes of maintenance Program Interval.

Vendors:

(1) Airworthiness tag
(2) History record of parts

Airworthiness Regulatory:

(1) Airworthiness Directive
(2) Alert letters

12.2.2 AIRCRAFT PERFORMANCE MONITORING

Aircraft Performance Monitoring is major part of a Continuing Analysis and Surveillance Program to monitors the effectiveness of the Maintenance Program and optimized it, includes system components, structures and power plants maintenance.
Aircraft Performance Monitoring Program will monitoring the aircraft performance by analyzing and evaluating such as repetitive defect which occurs twice or more within a month or component premature replacement. It is managed by Technical Support.
The board has the regulatory to make changes to the company's maintenance program based on the analysis of performance data.

This board is comprised of Technical Manager, Chief Inspector, Chief Engineer and Technical Support.

The board should review repetitive defects issues on a monthly basis. The meeting may be held to discuss statistical data and trends, findings, analysis and the progress of corrective actions.

Note:

DGCA Safety Circular AU/0649/DSKU/03/2007 says that the discrepancies, which reoccur 2 (two) times on the same aircraft during any 30 (thirty) consecutive days in operations shall be identified as a "repeat discrepancies" shall have a positive plan of corrective action be pursued to preclude further reoccurrence.

And the discrepancies, that reoccurs 4 (four) times on ATA 23, 25, 26, 33, 35 and 38 on the same aircraft during any 30 (thirty) consecutive days in operations and s all have a positive plan of corrective action be pursued to preclude further reoccurrence.

The repetitive defect management shall be tracked similar to handle the audit process with consist of the following elements:

a. Identification.
b. Rectification
c. Review and Analysis
d. Follow up

The board shall ensure that rectification takes into account the methodology used in previous repair attempts.

12.2.3 REPETITIVE DEFECT AND COMPONENT PREMATURE FAILURE MANAGEMENT

a. Review of Aircraft Maintenance Log and Flight and Maintenance Log.
b. Setting an alert, and identify repetitive defect when occurs twice or more.
c. If alert conform, analysis & investigate the defect
d. Provide corrective action by rectification.
e. Engineering will review and issue repetitive defect report monthly.
f. Engineering and inspectors, if require will do deep analysis to find the root cause of problem and solution by contacting expert or manufacturing

12.3 AUDIT FUNCTION

The continuing analysis and surveillance regarding audit functions refer to Quality Management System (QMS) Manual chapter 4 Quality Assurance program.

13.1 GENERAL

13.1.1 Reference

CASR 21.191; 21.197, 91.407; and 135.709 (b)

13.1.2 Purpose

This chapter describing how to conduct the maintenance Test Flight and Ferry Flight Procedure concerning who can be established and how can be obtained for such authorization, to comply its intended purpose.

13.2. MAINTENANCE TEST FLIGHT

a. The purpose of maintenance flight test is to verify an aircraft that has been maintained, rebuilt, or altered in a manner that may heve appreciably changed its flight characteristics or substantially affected its operation in flight.

b. There are certain of requirement to conduct Maintenance Flight Test, thus, will only depend on the task needed of the respective Aircraft Maintenance Manual requirements.

c. Maintenance flight test may require in case of serious pilot report, or when by routine corrective measure was failed to correct repeated problem on stability control of an aircraft flight characteristic.

d. Maintenance flight test does not have to be performed as required by paragraph (a) of this sub chapter if, prior to flight, ground tests inspection, rebuilding, or alteration has not appreciably changed the flight charecteristics or substantially affected the flight operation of the aircarft.

NOTE: Buffeting, vibration, flutter or dutch roll which can not be accounted

13.2.1. Requirements

a. In accordance with CASR 91.407, only those persons necessary for proper and efficient operation of test flight shall be carried on the flight.

b. Maintenance test flights may be required when any of the installations, changes or corrections is made as following:

1) After major damage, alterations or repairs that may adversely affect the flight characteristics or operations of the aircraft.

2) After completion of a major airframe overhaul.

3) in case of serious pilot reports where nothing can be detected which might be causing the complaint, or when routine corrective measures fail to correct repeated complaints on stability, rigging, or flying qualities of an aircraft. The Inspector or his designated person will make determination of test flight requirement.

EXAMPLE:

Buffeting, vibration, flutter or ditch roll is reported which can not be accounted for on the ground.

4) After Replacement engine change with brand new

c. Test flights are not required if ground tests or inspections or both show conclusively that repair or alteration has not appreciably changed the flight characteristics or substantially affected the flight operation of the aircraft.

d. It will be the responsibility of the Inspector (or his designee) to determine when a test flight is required other than those specified in this section.

e. All maintenance test flights will be flown by PT. Smart Cakrawala Aviation's Pilots during daylight hours only (Sunrise to Sunset). The test flights will adhere to PT. Smart Cakrawala Aviation published Jepperson approach plate minimums

for departure and arrival and all test flight maneuvers will be accomplished clear of clouds.

13.2.2. Procedure

a. All test flights required by Maintenance must have the approval of the Chief Inspector and the Technical Manager.

b. Those requesting the test flight will upon approval, obtain the appropriate Maintenance Test Flight Report. The person approving the test flight will notify flight operations requesting reasons for the test flight, and advising who the additional crew member(s) will be, if required.

c. The Engineer or Inspector that releases the aircraft from Maintenance shall make the appropriate maintenance log entries indicating the reason for the test flight and that the aircraft is released for test flight only.

d. As authorized by the Chief Inspector, aircraft being released from maintenance may be released for "Test Flight Only" with certain routine and non-routine Items open provided all paperwork has been accounted for and the open items have been properly deferred. The Aircraft Flight & Maintenance Log will be signed under the "Maintenance Action" section, "Aircraft Released for Test Flight Only" and signed by the Authorized Engineer releasing the aircraft.

13.2.3. Test Flight Report

a. Maintenance Test Flight Report (Form : SCA/MTC/027) is for all aircraft operated by PT. Smart Cakrawala Aviation and is self-explanatory with space provided for listing the reason for the test flight, any special in-flight checks to be made, and flight crew findings and/or comments.

b. In all cases involving a test flight, supervisory personnel must not fail to advise the captain of the specific reason for the test flight. The repairs, replacements, adjustments or questionable conditions which warrant the test flight will be covered, with particular emphasis on conditions involving flight controls.

c. When test flights are terminated at other than the main base, the flight crew findings or comments concerning the flight plus any corrective action by Maintenance will also be sent or transmitted to Maintenance Control.

13.2.4. Limitation when conducting Test Flight

a. The aircraft shall be airworthy in every respect with the exception of the faulty system and/or its accessories

b. No passenger or cargo shall be carried.

c. A minimum crewmember only shall be carried.

d. The Operating weight of the aircraft shall be as the minimum as necessary.

13.3 FERRY FLIGHT

When it is deemed necessary, and it is same as position flight, PT. Smart Cakrawala Aviation may issue an authorization to conduct ferry flight of its aircraft. PT. Smart Cakrawala Aviation may conduct ferry flight by using internal ferry flight procedures with the following conditions:

a. If the aircraft still has a current Certificate of Airworthiness, this ferry flight only need Flight Approval from Directorate of Air Transportation and does not need any inspection from Directorate of Airworthiness and Aircraft Operation.
b. If the aircraft has no current Certificate of Airworthiness, Directorate of Airworthiness and Aircraft Operation may inspect the aircraft before conduct the ferry flight. Require Flight approval dari Directorate of Air Transportation and special permit from Directorate of Airworthiness and Aircraft Operation

The ferry flight is required for PT. Smart Cakrawala Aviation aircraft on the following condition:

a. For delivering or exporting the aircraft.
b. For evacuating an aircraft from an area of impending danger.
c. To allow the operation of an overweight aircraft for flight beyond its normal range over water or land areas where alternate landing facilities or fuel is not available.
d. For delivering aircraft that will conduct maintenance, preventive maintenance and alteration.
e. For reposition aircraft from base to another base.

Requirement and Procedures for ferry flight.

Ferry flight is permitted under the following conditions.

a. The aircraft is capable and shall be in 'Safe for Flight' condition in respect to the exemption of the faulty system and/or its accessories.
b. The operating weight of the aircraft shall be as the minimum as necessary.
c. Other than Flight Crews only authorized person/engineer may be carried on board during ferry flight.
d. Not allowed to carry passenger or cargo to be on board during ferrying flight, except cargo item supporting as an aircraft own flyway kit.
e. The flight shall be conducted in accordance with limitations contained in the respective Aircraft Flight Manual or Aircraft Operating Manual.

13.4 SPECIAL FLIGHT PERMIT FOR MAINTENANCE PURPOSE

13.4.1. General

Occasionally it becomes necessary to obtain a Special Flight Permit to operate an aircraft which does not fully meet all normal airworthiness requirements, or after accident/incident, yet may be flown safely under certain restrictions to a base where repairs, alterations, maintenance and/or adjustments may be made. The aircraft may not be permit to conduct ferry flight without prior notification and approval by DGCA.

13.4.2. Responsibilities

a. Operation Department will be responsible for determining flight crew requirements and a plan of operation as necessary for the particular circumstances.

b. Technical Department will prepare and submit form application and all aircraft data required for Special Flight Permit to DGCA.

c. Chief Inspector will responsible to evaluate the discrepancy and determine any precautionary maintenance, inspections or repairs to be accomplished and to ensure their accomplishment prior to releasing the aircraft for flight.

13.4.3. Procedures

Requirements and procedures when conducting this special flight:

When necessary to obtain a special flight permit the following procedures shall be adhere to in obtaining ferry flight for special flight permit authorization:

a. Technical Department will make a request for Special flight permit to PT. Smart Cakrawala Aviation Management, and describe the Special Flight Permit purposes.

b. The Chief Inspector will responsible to evaluate the discrepancy and determine any precautionary maintenance, inspections or repairs to be accomplished and to ensure their accomplishment prior to releasing the aircraft for flight.

c. Flight operations will be responsible for determining flight crew requirements and a plan of operation as necessary for the particular circumstances.

d. The Inspector shall ensure that all preparation for flight purposes has been completed.

e. The Technical Department, Operation department, Chief Inspector, Safety Manager shall review the condition to determine any flight operating limitations. The Technical Manager will prepare the application for Airworthiness certificate Form (DAC 21-21) and submitted to DGCA for approval.

f. Duty engineer who directly in charge should make a statement on the Aircraft Flight and Maintenance Log Book (Maintenance Release) that the aircraft has been inspected and is safe for intended flight.

g. The approved manufacturer's aircraft checklist and PT. Smart Cakrawala Aviation Standard Operating procedure requirement for conducting the flight shall be followed.

h. A copy of this Aircraft Flight and Maintenance Log page shall be removed and retained at the station for record purpose.

13.4.4. Limitation When Conducting under Special Flight Permit

a. The aircraft shall be safe for flight.

b. No passenger or cargo shall be carried.

c. A minimum crewmember only shall be carried.

d. The Operating weight of the aircraft shall be as the minimum as necessary.

14.1. GENERAL

14.1.1. Reference

CASR Part 135.703., 135.705., 135.707.

14.1.2. Introduction

The Mandatory Reporting which must be submitted to the DGCA by PT. Smart Cakrawala Aviation are as follow:

1. Services Difficulty Report (SDR), Form : SCA/MTC/053. (DGCA Form 43-01)
2. Mechanical Interruption Summary Report, Form : SCA/MTC/011.
3. Aircraft / engine Utilization Report, Form : SCA/MTC/046.
4. Alteration and Major Repair Reporting, Form SCA/MTC/055.(DGCA Form 43-337)
5. Short Term Escalation, Form : SCA/MTC/007.

14.2. SERVICES DIFFICULTY REPORT (SDR) (Form : SCA/MTC/053)

14.2.1. General

CASR 135.703 mandates reporting of event a malfunction, defect, failure or occurrence of any company's fleet that affects or could affect the airworthiness of the aircraft or endangering safety of flight crew, a mandatory notification should be submitted to DGCA. The reportable items appearing below are to assist Company personnel in deciding when a report is required. All maintenance personnel must be alert for reportable items.

14.2.2. List of Reportable Items

Company shall report the occurrence or detection of each failure, malfunction or defect concerning:

1. Fires during flight and whether the related fire warning system functioned properly;
2. Fires during flight not protected by a related fire warning system;
3. False fire warning during flight;
4. An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;
5. An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;
6. Engine shutdown during flight because of flameout;
7. Engine shutdown during flight when external damage to the engine or aircraft structure occurs;
8. Engine shutdown during flight due to foreign object ingestion or icing;
9. Engine shutdown during flight of more than one engine;
10. A propeller feathering system or ability of the system to control overspeed during flight;
11. A fuel or fuel dumping system that affects fuel flow or causes hazardous leakage during flight;
12. An unwanted landing gear extension or retraction, or an unwanted opening or closing of landing gear doors during flight;
13. Brake system components that result in loss of brake actuating force when the aeroplane is in motion on the ground;
14. Aircraft structure that requires major repair
15. Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the DGCA;
16. Aircraft components or systems that result in taking emergency actions during flight (except action to shut down an engine); and
17. Emergency evacuation systems or components including all exit doors, passenger emergency evacuation lighting systems, or evacuation equipment that are found defective, or that fail to perform the intended functions during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments

18. For the purpose of this section "during flight" means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

14.2.3. Report Preparation And Submissions.

1. Procedures

   Chief Inspector will submit report on any occurrence or detection on the above-mentioned list of the reportable SDR items. To accomplish this, Services Difficulty Report, DAC Form 43-01 will be used for reporting data on all Services Difficulty items.

   The preliminary Notification Form is then forwarded to the Chief Inspector for preparation and submission to the DGCA.

   In compliance with requirements of CASR for Services Difficulty Reports, the Chief Inspector will complete a Services Difficulty Report and forward it to the DGCA within 72 hours following the incident. This form details the nature of failure, malfunction or defect and corrective action taken. The reporting period is recognized as the 24-hour period from 09.00 hours local time of each day to 09.00 hours of the next day. A report that is due to the DGCA on Saturday or Sunday will be delivered on the next working day. The Chief Inspector will forward the report within this time even if the full information required is not available. When additional information becomes available; it will be submitted expeditiously as a supplement to the original report.

2. The certificate holder shall transmit the reports required by this section in a manner and on a form as prescribed by the Director, and shall include in the first report as much of the following as is available:
   a. Type and identification number of the aircraft.
   b. The name of the operator.
   c. The date, flight number, and stage during which the incident occurred (e.g., preflight, takeoff, climb, cruise, descent, landing, and inspection).
   d. The emergency procedure effected (e.g., unscheduled landing and emergency descent).
   e. The nature of the failure, malfunctions, or defects.
   f. Identification of the part and system involved, including available information pertaining to type designation of the major component and time since overhaul.
   g. Apparent cause of the failure, malfunctions, or defects (e.g. wear, crack, design deficiency, or personnel error).
   h. Whether the part was repaired, replaced, sent to the manufacturer, or other action taken.
   i. Whether the aircraft was grounded.
   j. Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action.

14.2.4. Closing of SDR.

Closing of SDR is responsibility and authority of DGCA-PMI, but PT. Smart Cakrawala Aviation must fully support the DGCA to solve/close the SDR by submitting all data required for closing of the SDR. If all data (information and action taken) required by DGCA is clear enough for closing of the SDR, the DGCA-PMI will info Technical Manager that the status of SDR shall be closed. Chief Inspector is responsible to make summary and records all open/closed status of SDR.

14.3. MECHANICAL INTERRUPTION SUMMARY REPORT

PT. Smart Cakrawala Aviation will be regularly and promptly send a mechanical summary report to DGCA accordance with CASR 135.705 in timely basis.

Mechanical Interruption Summary reports (Form : SCA/MTC/011) should be send regularly and promptly case of any interruption to a flight, unscheduled change of aircraft en route or unscheduled stop or diversion from a route (other than SDR'S) or prematurely engine removed or propeller feathering in flight (excluded training/check purposes) as required under CASR 135.705.

In compliance with Civil Aviation Safety Regulation 135.703, PT. Smart Cakrawala Aviation will report all interruptions of scheduled flights that are due to mechanical problems.

The Chief Inspector will prepare and submit to the DGCA monthly report containing the following information:

1. Each interruption to a flight, unscheduled or diversion from a route or unscheduled aircraft change caused by unknown or suspected mechanical difficulties or malfunctions not reported under the conditions covered under the Services Difficulty Report and CASR 135.703.
2. The number of engines removed prematurely and propeller feathering because of malfunction, failure or defect, listed by make and model and aircraft type on which they were installed.

The Engineering & PPC section will prepare a Maintenance Delay Mechanical Interruption Report for all incurred delays or interruptions and forward these to the Chief Inspector. This report will be forwarded to the Principal Maintenance Inspector.

14.4. MAJOR REPAIR AND MAJOR ALTERATION REPORTING

The certificate holder shall submit a copy of each report of a major alteration to, and shall keep a copy of each report of a major repair available for inspection by, the representative of DGCA.

14.4.1. Purpose

In this section expecting all personnel of PT. Smart Cakrawala Aviation understand and comprehend understanding the definitions and differences of any kind of items which included in Major Repair and Major Alteration category.

14.4.2. Major Repair

The definitions of the terms "Major Repair" are found in CASR Part 1 –Definitions and Abbreviations and in CASR Part 43 - Maintenance, Preventive Maintenance, Rebuilding, and Alteration. The definitions used in the CASR's are applicable to many aircraft types, including General Aviation aircraft, and are not limited to Transport category aircraft operated by PT. Smart Cakrawala Aviation. The examples listed in CASR part 43 - Appendix A are not all-inclusive

Definitions

A. A repair is the restoration of a damaged part to a condition, at least, equal to its original or properly altered condition. An alteration is the modification of an aircraft from one sound state to another sound state; the aircraft meets the original airworthiness specifications and standards before and after the modification. Engineering has the final responsibility whether the work is s repair or alteration.

B. Major Repair (CASR Part 1) means a repair:

   (1) That, if improperly done, might appreciably affect weight, balance, structural strength, performance, power plant operation, flight characteristics, or other qualities affecting airworthiness; or

   (2) That is not done according to accepted practices or cannot be done by elementary operations.

C. Major Repair (CASR Part 43 - Appendix A)

   (1) Airframe Major Repairs: Repairs to the following parts of an airframe and repairs of the following types, involving the strengthening, reinforcing, splicing, and manufacturing of primary structural members or their replacement, when replacement is by fabrication such as riveting or welding are airframe major repairs:

      (a) Box Beams.

      (b) Monocoque or semi-monocoque wings or control surfaces.

      (c) Wing stringers or chord members.

      (d) Spars.

      (e) Spar flanges.

      (f) Members of truss-type beams.

      (g) Thin sheet webs of beams.

      (h) Keel and chine members of boat hulls or floats.

(i) Corrugated sheet compression members which act as flange material of wings or tail surfaces.

(j) Wing main ribs and compression members.

(k) Wing or tail surface brace struts.

(l) Engine mounts.

(m) Fuselage longerons.

(n) Members of the side truss, horizontal truss, or bulkheads.

(o) Main seat support braces and brackets.

(p) Landing gear brace struts.

(q) Axles.

(r) Wheels.

(s) Skis, and ski pedestals.

(t) Parts of the control system such as control columns, pedals, shafts, brackets or horns.

(u) Repairs involving the substitution of material.

(v) The repair of damaged areas in metal or plywood stressed covering exceeding six inches in any direction.

(w) The repair of portions of skin sheets by making additional seams.

(x) The splicing of skin sheets.

(y) The repair of three or more adjacent wing or control surface ribs or the leading edge of wings and control surfaces.

(z) Repair of fabric covering involving an area greater than that required to repair two adjacent ribs.

(aa) Replacement of fabric on fabric covered parts such as wings, fuselages, stabilizers, and control surfaces.

(bb) Repairing, including re-bottoming, of removable or integral fuel tanks and oil tanks.

(2) Power plant Major Repairs: Repairs of the following parts of an engine and repairs of the following types are power plant major repairs:

(a) Separation or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with an integral supercharger.

(b) Separation or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with other than spur-type propeller reduction gearing.

(c) Special repairs to structural engine parts by welding, plating, metalizing, or other methods.

(3) Appliance Major Repairs: Repairs of the following types to appliances are appliance major repairs:

(a) Calibration and repair of instruments.

(b) Calibration of radio equipment.

(c) Rewinding the field coil of an electrical accessory.

(d) Overhaul of pressure type carburetors, and pressure type fuel, oil, and hydraulic pumps.

Policy (General)

A. Major repairs must be accomplished per DGCA approved data such as Structural Repair Manuals (SRM's), approved engine manuals, etc. Any deviation from approved data for major repairs must be approved by the DGCA, a Sub Directorate of Engineering. PT. Smart Cakrawala Aviation Engineering & PPC section will coordinate such DGCA approval when required.

B. PT. Smart Cakrawala Aviation Engineering & PPC Section is responsible for the classification of repairs as "Major" or "Minor" when requested.

Major Structural Repair Classification Policy

A. Airframe Structural Repairs - the following definitions and interpretive information may be considered when classifying structural repairs as "Major" in accordance with the requirements of CASR Part 43 - Appendix A. This section also details special requirements applicable to airframe structural repairs.

(1) Airworthiness - conformity to the type design and in a condition for safe operation.

(2) Primary Structure or Principal Structural Elements, parts or elements that significantly contribute to the carrying (i.e. sustaining) of flight, ground or pressure loads, or whose failure could affect the structural integrity necessary for the safety of the airplane.

(a) Flight loads, in general, include lift (vs. weight), thrust (vs. drag), pitching moment, maneuvering loads and gust loads.

(b) Ground loads, in general, include landing loads and ground handling loads.

(c) Pressure loads, in general, include fuselage loads, which occur as the result of the differential between cabin pressure and outside air pressure at flight altitudes.

(3) Secondary Structural Members - constituent structural parts or elements other than primary structural members, including members which carry only air loads or inertial loads generated on or within the secondary structure.

(a) Air loads, in this general context, refer to aerodynamic drag loads.

(b) Inertial loads, in general, are loads, which result from the affect of acceleration on each item of mass in an aircraft.

(4) Structural Repair - The restoration of a damaged airframe structural element, accomplished in such a manner and using material of such quality that its restored condition will be at least equal to its original or properly altered condition (with respect to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness).

(a) "Major Repair" restorations of primary structure/PSE's members may involve strengthening, reinforcing, splicing, manufacturing, or replacement (if by fabrication processes, such as riveting or welding,

which must be properly done to develop the required strength of a joint). Any of these restorative processes may also involve material substitutions. Major repairs restore airworthiness qualities (i.e., conformity to type design, at least equal to the original or properly altered condition).

(b) Rework/blend-out of damaged structural members, with remaining strength within design certification limits does not involve or require major repair/strength restorations.

(c) If the airworthiness qualities of a primary structure/PSE's are not properly restored by a "major repair", it may have an appreciable (i.e., measurable) affect on the airworthiness qualities of the entire aircraft, including weight/balance (in regard to maximum certified weight and center of gravity limits), structural strength, performance, power plant operation and flight characteristics. As a Required Inspection Item, a "major repair" is subject to verification by a Quality Control in order to ensure the repair is properly performed and meets airworthiness standards.

(d) A repair to secondary structure may also be classified as "major" if a probable consequence of improper restoration is damage to primary structure or engines, or if it may adversely affect aerodynamic performance or other airworthiness qualities.

(e) All "major" structural repairs must be done in accordance with DGCA approved technical "data". This technical data supports and/or describes the repair, and may include drawings, sketches, stress analysis, PT. Smart Cakrawala Aviation Engineering documents, and operating limitations. Previously approved data may include manufacturer's data which bear indication of DGCA approval (e.g. SRM's, SB's, drawings, etc.).

(g) A report providing a detailed description of each "major repair" must be prepared in order to satisfy the "mechanical reliability" reporting requirements of CASR Part 135.703 as well as the recording requirements of CASR Part 135.707 and CASR Part 43.9(b). This report is initiated as the "Services Difficulty Report" and the required information is submitted to the DGCA. (This information is collected and organized by the DGCA in a central data base which allows for the detection of significant trends in regard to critical aircraft structure that requires repair or replacement due to cracks, corrosion, permanent deformation, or other damage which is beyond the maximum limits acceptable to the manufacturer or the DGCA).

(h) Some "major repairs" may require follow-up action (e.g., repetitive inspections, time-limited replacements, etc.) in order to ensure continued airworthiness

14.4.3. Major Alteration Classification

General

The definitions of the terms "Major Alteration" are found in CASR Part 1 - Definitions and Abbreviations and in CASR Part 43 - Maintenance, Preventive Maintenance, Rebuilding, and Alteration. The definitions used in the CASR's are applicable to many

aircraft types, including General Aviation aircraft, and are not limited to Transport category aircraft operated by PT. Smart Cakrawala Aviation.

Definitions

A. An alteration is the modification of an aircraft from one sound state to another sound state; the aircraft meets the original airworthiness specifications and standards before and after the modification. A repair is the restoration of a damaged part to a condition, at least, equal to its original or properly altered condition. Engineering Section has the final responsibility whether the work is a repair or alteration.

B. Major Alteration - An alteration not listed in the aircraft, aircraft engine or propeller specifications that:

(1) might appreciably affect weight, balance, structural strength, performance, power plant operations, flight characteristics or other qualities affecting airworthiness; or

(2) is not done according to accepted practices or cannot be done by elementary operations. (Ref. CASR 1).

C. Major Alterations (CASR Part 43 - Appendix A)

(1) Airframe Major Alterations. Alterations of the following parts and alterations of the following types, when not listed in the aircraft specifications issued by the DGCA, are airframe major alterations:

(a) Wings.

(b) Tail surfaces.

(c) Fuselage.

(d) Engine mounts.

(e) Control system.

(f) Landing gear.

(g) Hull or floats.

(h) Elements of an airframe including spars, ribs, fittings, shock absorbers, bracing, cowling, fairings, and balance weights.

(I) Hydraulic and electrical actuating system of components.

(k) Changes to the empty weight or empty balance which results in an increase in the maximum certificated weight or center of gravity limits of the aircraft.

(l) Changes to the basic design of the fuel, oil, cooling, heating, cabin pressurization, electrical, hydraulic, de-icing, or exhaust systems.

(m) Changes to the wing or to fixed or movable control surfaces which affect flutter and vibration characteristics.

(2) Power plant Major Alterations. The following alterations of a power plant, when not listed in the engine specifications issued by the DGCA, are power plant major alterations.

(a) Conversion of an aircraft engine from one approved model to another, involving any changes in compression ratio, propeller reduction gear,

impeller gear ratios or the substitution of major engine parts which requires extensive rework and testing of the engine.

(b) Changes in the engine by replacing aircraft engine structural parts with parts not supplied by the original manufacturer or parts not specifically approved by the Administrator.

(c) Installation of an accessory which is not approved for the engine.

(d) Removal of accessories that are listed as required equipment on the aircraft or engine specification.

(e) Installation of structural parts other than the type of parts approved for the installation.

(f) Conversions of any sort for the purpose of using fuel of a rating or grade other than that listed in the engine specifications.

(3) Appliance Major Alterations. Alterations of the basic design not made in accordance with recommendations of the appliance manufacturer or in accordance with a DGCA Airworthiness Directive are appliance major alterations. In addition, changes in the basic design of radio communication and navigation equipment approved under type certification or a Technical Standard Order that have an effect on frequency stability, noise level, sensitivity, selectivity, distortion, spurious radiation, or ability to meet environmental test conditions and other changes that have an effect on the performance of the equipment are also major alterations.

Policy

Engineering & PPC Section is responsible to classify each alteration as “major” or “minor” in accordance with CASR 135 and CASR 43,

15.1. AIRCRAFT CLEANING

15.1.1. Introduction

A clean aircraft helps to maintain our high standards and makes it easier to check and inspect the aircraft as part of the continuous maintenance program. Cleaning the exterior of the aircraft is the most effective way to control corrosion. A clean aircraft reduces drag and contributes to fuel economy.

Caution should be exercised to ensure that only approved cleaning solutions and materials are used in accomplishing aircraft cleaning. Usage of unapproved solutions and materials may result in damage to the surfaces being cleaned. The approved cleaning solution and materials are listed in the applicable Maintenance Manual.

15.1.2. Safety

A. Personnel Precautions

(1) Use only the correct cleaner for the job and use them properly.

(2) Do not splash any cleaning fluids excessively.

(3) Keep all cleaning fluids off clothing.

(4) Do not place cleaner soaked rags in pockets.

(5) Do not leave loose items on stands or ladders.

(6) Do not operate any equipment unless you are qualified to operate it.

(7) Wear rubber gloves, suits, and eye protection when required.

(8) Strictly observe all company safety rules.

B. Aircraft Precautions

(1) Do not allow polish or cleaners to enter flush static openings or pitot tube openings. Prior to starting any service, all required pitot tubes and static ports within the affected area of the service are to be covered.

(2) Do not allow mop heads or brushes to come in contact with ground or any area where they may pick up rocks, sand, safety wire or other abrasive material. Do not use mops/brushes or abrasives on aircraft windows.

(3) Do not direct high pressure water on honeycombed areas.

(4) Do not direct high pressure water on plastic windows. The use of cleaning equipment such as swabs, brushes, cloths, pads, etc., on exterior window surfaces is strictly prohibited.

(5) Do not direct high pressure water into openings.

(6) Do not allow any motorized equipment to come in contact with aircraft.

WARNING: THE USE OF ALUMINUM SPEED TAPE IS STRICTLY PROHIBITED. DO NOT APPLY ANY TAPE DIRECTLY TO THE STATIC PORT OR PITOT TUBES.

15.2. AIRCRAFT JACKING AND LIFTING

15.2.1. General

This section described at the general procedure of aircraft jacking and lifting during maintenance or intended purpose such replacement of landing gear components: wheels, brakes, actuator, and maintenance test etc.

15.2.2. Responsibility

The engineer is responsible to prepare jacking equipment and the precaution during process aircraft jacking and lifting. Inspector is responsible to check and monitor during process of aircraft jacking and maintenance test.

15.2.3. Procedures

1. All jacks should be properly rated for the job for which they are being used. They should be in good working order.
2. Make certain that max permissible total weight of aircraft for jacking or max permissible load on each jacking point must not exceed.
3. Place jack firmly on a flat surface. Correctly position jack under the aircraft jack points, as identified by the manufacturer.
4. Alert all personnel in the area of the jacking operation.
5. Make sure that the area around the aircraft, on all sides, is clear, in case one ore more jacks fail under the load or the aircraft moves off the jack points.
6. After the aircraft is jacked to the desired height, make sure that jacking controls are protected from accidental operation.
7. Before jacking, make certain that aircraft stability ensured
8. Prior to jacking, fuel load shall be evenly distributed about aircraft centerline.
9. When jacking aircraft for maintenance test purpose with electrical ground power unit connected, the following precautions should be taken:
10. All related switches are in correct position, Circuit Breaker is pulled out.
11. Release parking brakes and removed wheel chocks when jacking aircraft.
12. Alert all personnel of the test. Check that no personnel are working in the wheel well area, Begin test only when the area is clear and posted with appropriate sign.
13. After swing test L/G: Warn all personnel before aircraft is lowered.

15.3. HIGH WIND PROTECTION

15.3.1. General

There has been instance where aircraft have been shifted during high wind conditions causing severe damages to the aircraft and surrounding structures.

It is therefore necessary to perform the high wind protection procedures whenever high wind is anticipated so as to prevent such incidents from reoccur.

15.3.2. Procedures

The maintenance personnel shall prepare the following:

1. Place hard chocks against the aircraft wheels
2. One in front and one behind the nose wheels (total of 2 chocks)
3. One at the rear of each main wheel of the outboard gear or wing gear (total of 4 chocks)
4. Ensure there is sufficient hydraulic brake pressure and set parking brake to Park.
5. Position horizontal stabilizer to full airplane nose down position.
6. Clear all ground supports equipment from around the aircraft.
7. The aircraft should be adequately moored during extreme high wind, prolonged periods of outdoor parking, whichever adverse wind condition is expected for each type of aircraft perform mooring procedure with its applicable aircraft maintenance manual appropriate aircraft type.

15.4. AIRCRAFT STORAGE

15.4.1. General

These procedures are described to prevent deterioration aircraft structure, finish and or system component for aircraft deactivation from service operation due to some reason such as company policy, material/ part shortage.

15.4.2. Procedures

1. General procedures

   Prior to storage the aircraft must be positioned in the storage area as follows:

   a. Position the aircraft on a level surface
   b. Aircraft should be spaced a sufficient distance part to provide adequate clearance for maintenance servicing or fire lanes.
   c. The direction in which aircraft are to be parked will be determined, by ease maintenance and servicing, and not by direction of the prevailing wind.
   d. Center Nose Wheel
   e. Connect aircraft static grounding cables.
   f. Install landing gear safety lock pin in main and nose gear.

2. Detail Procedures

   Detail procedures to preserve / inspection on individual aircraft system & component including engine should refer to aircraft maintenance manuals.

15.5. AIRCRAFT TOWING

15.5.1. General

During in flight line or in hangar operation the aircraft can be towed or pushed forward or aft, using a tractor and tow bar attached to either the forward or aft lug of the nose gear.

To avoid incident or accident to the Responsible personnel, these procedures will describe towing operation.

15.5.2. Responsibility

The ground engineer will make radio communication for standby tower frequency when the aircraft have to cross the runway, and communication to towing operator.

The towing operator shall continuously standby for instruction from the ground engineer in the cockpit.

15.5.3. Procedures

1. Preparation of Towing
   a. Towing driver should be qualified
   b. Tractor or towing vehicle and tow bar must be in the good condition and serviceable.
   c. Check for correct installation of shear bolt, including the part number.
   d. Check for installation of the tow bar to the nose gear strut.
   e. All landing gear pins have been installed correctly.
   f. All doors have to be closed before aircraft start to tow.
   g. Refer to each aircraft Maintenance Manual for correct procedure.

2. General Procedures
   a. Towing speed should be kept down to safe speed (± 5 km/hrs).
   b. Ensure smooth acceleration and deceleration towing speed to prevent excessive snatch loads on the nose gear.
   c. Ensure that the maximum permitted angle on the nose gear for degrees on turn is not exceeded. Make radius of turns as large as possible, to minimize tire scrubbing and twisting loads on the main landing gear legs.
   d. After confirmed by towing driver that aircraft towing have been completed stopped on the end of towing, this action should be done:
   e. Apply the aircraft parking brake / wheels chock
   f. Check the aircraft wheels and install the wheel chocks.
   g. Remove tow bar from aircraft.
   h. If the aircraft is to be parked for long period or moored, refer to aircraft maintenance manual chapter 10.

3. Detail Procedures

   Detail procedures to tow on individual aircraft should refer to aircraft maintenance manuals.

15.6. ENGINE GROUND RUN

15.6.1. General

During engine ground run make sure that the appropriate procedures in the Maintenance Manual of each aircraft type, relevant engine run check sheets, ground operation limits, safety precaution are observed and followed accordingly.

15.6.2. Communication with Apron Control

Contact AMC and ATC for permission to engine ground run. Inform them of the time required and the power setting to be tested. Always maintain radio contact with Apron Control during engine ground run.

15.6.3. Procedures

The aircraft heading should be forward the prevailing wind. Set aircraft brakes to park. Clear the areas in front and behind the engines of all debris and equipment. Post warning signboard in front of engine row area, wing tip and rear fuselage. Switch “ON” the anti-collision light. Carry out the run checks in accordance with relevant check sheets. Tick the items in the checklist as they are being done. This is the read and response method. Inform AMC and ATC on completion of engine run. Raise a blast fence form when engine run is done at the blast fence area.

15.6.4. Personal Authorized to Perform Engine Ground run

Allowable personnel to perform engine ground run is the personel that has an appropriate Company Authorization.

15.7. SMOKING REGULATION

The smoking regulations listed below apply to all personnel. Where smoking is permitted, personnel should recognize that temporary unsafe conditions may arise. Personnel will refrain from smoking in any potentially hazardous situation.

1. The smoking of cigarettes, cigars, pipes and other flammable material is prohibited:
   a. Inside aircrafts at any-time no smoking light is ON.
   b. Within 50 feet of an aircraft parked at the ramp-,
   c. At any location in the airport against airport regulations;
   d. Within 50 feet of any fuelling equipment, and oil, solvent or paint storage areas
   e. Inside hangars, except in offices, washrooms and other designated smoking areas.
2. Smoking materials will be extinguished only in ashtrays or suitable fireproof containers. Extinguishing smoking material on floors, trash cans and other unsuitable containers is prohibited.
3. Lighted smoking material will not be carried from one designated smoking area to another through a prohibited area.
4. Personnel will refrain from smoking after being subjected to fuel spills or flammable vapors until the spillage material has been cleaned and the vapors eliminated.
5. In addition to the general rules listed above, all local no smoking regulations will be compiled with. Certain shops, stock rooms and work areas at each base or workstation may be designated as no smoking areas. These will be identified as local rules and so posted.

15.8. CARE OF SUPPORT EQUIPMENT - POLICY

All support equipment receives regular periodic maintenance based on equipment usage and pre-determined intervals. There are two basic support equipment categories they are as follows:

1. Powered vehicles: Check Powered vehicles are inspected on the following schedule, and in addition to normal operation surveillance.
2. Daily and when fueling: Engine oils, steering and brake fluid transmission flawed (If automatic).
3. Maintenance stands: Unless otherwise removed flame service for condition, all maintenance stands are checked prior to each use.

15.9. SECURITY-PARKED AIRCRAFT

15.9.1. Policy

Security of PT. Smart Cakrawala Aviation aircraft while on the ground is a very important function of daily operations. It is the responsibility of all Company employees to take whatever action necessary to prevent access to aircraft by unauthorized individuals.

15.9.2. General Security Precautions

The following are security precautions employees should observe while performing their duties:

1. Close all entry cargo doors and servicing panels when the aircraft will be unattended.
2. Non PT. Smart Cakrawala Aviation employees should not be allowed on and off the aircraft unless accompanied by a Company representative.
3. Employees should be particularly alert to individuals trying to remain on board without authorization or attempting to leave packages or briefcases on board the aircraft without permission.
4. Unauthorized personnel are not permitted to wander around the ramp or in maintenance areas. Challenge any unauthorized individual observed loitering in the vicinity of or attempting to board PT. Smart Cakrawala Aviation aircraft. If an unsatisfactory explanation is given, asks the person to leave the area, or, if warranted, take him to a Supervisor or Security Officer for further questioning.

   NOTE: All unauthorized individuals should be observed closely for presence of packages or weapons on their persons.
5. An Employee aware of suspicious action or information thereof should report the matter to his/her Supervisor and/or a Security Officer.
6. Immediately report to your supervisor the presence of any unusual packages on or near aircraft if the possibility exists it is not an item of normal cargo or baggage. DO NOT ATTEMPT TO REMOVE ANY SUCH PACKAGE. REPORT IT TO YOUR SUPERVISOR. If a Supervisor is not readily available, contact the airport police to have an immediate inspection made by knowledgeable explosive experts.

15.10. NARCOTIC, DRUG AND ALCOHOL PREVENTION CONTROL PROGRAM

It is the Company responsibility to ascertain that no narcotic drugs, marihuana, and depressant or stimulant drugs or substances are used by engineer who involve in maintenance, preventive maintenance and alteration of the aircraft.

15.11. SHIPPING

15.11.1 General

In order to support other station or base maintenance to perform aircraft maintenance which is need tools or special tools

15.11.2 Responsible

Chief Maintenance will responsible to arrange the shipment.

15.11.3 Procedure

1. Technical support make coordination with Chief Maintenance regarding maintenance plan
2. Chief maintenance give order to engineer in charge or Storeman where tool available to send the tool to other location where need tool.
3. Engineer in charge or Storeman will ensure completeness of the tool and make a evidance picture and report to Chief Maintenance
4. Appointed engineer in charge or Storeman send the tool to location who request tool via freight or hand carry
5. Shipper will notify Chief Maintenance if tool have been sent
6. Chief maintenance monitor the movement of the tool until reach the final destination
7. Engineer in Charge or Storeman at final destination tool make evidance picture when receiving and unboxing the package to check tool complitness

Once engineer in charge or Storeman satisfy with tool complitness he/she will make report and evidance to Chief maintenance

Appendix A – Management Personnel

President Director	**: Pongky Majaya**
Director	**: Winarso**
Safety and Quality Manager	**: Kistari Millenianingsih**
Operation Manager	**: Capt. Alan Satria Purnama**
Chief Pilot Fixed Wing	**: Capt. Ignatius Amardio K.**
Chief Pilot Rotary Wing	**:Capt. Endy Nawalaga**
Technical Manager	**: Istiono**
Chief Inspector	**: Yanuar Abdul Fatah**
Chief Maintenance	**: Dodit Suprianto**
Chief Technical Support	**: Dwi Mahanani**

Appendix B – List of forms PT. Smart Cakrawala Aviation

PT. Smart Cakrawala Aviation (SCA) uses forms to control all activities administration for supporting operational of the company. Besides, the forms format should be same to be used by any personnel of PT. SCA. The purpose of forms is for maintaining the document in the same format as PT. SCA approved and used under specific numbering, which maintains traceability of the documentation. Periodically, at least once per year or any changes Chief Inspector and Technical Manager will review and evaluate the needs of form for revising, adding, and/or removing if necessary.

All technical company forms and procedures how to fill can be found in Company Form Manual. Manual Document Number: SCA/TEK/3-001

1.	Form SCA/MTC/001	Fuel Record Log
2.	Form SCA/MTC/002	Manuals Transmittal Form
3.	Form SCA/MTC/003	Work Interruption Status
4.	Form SCA/MTC/004	Consesison Form
5.	Form SCA/MTC/005	Calibration Tool Record
6.	Form SCA/MTC/00	Label Inoperation
7.	Form SCA/MTC/007	Short Term Escalation
8.	Form SCA/MTC/008	One Time Release Authorization
9.	Form SCA/MTC/009	Individual Training Record
10.	Form SCA/MTC/010	Company Summary Training Record
11.	Form SCA/MTC/011	Mechanical Interruption Summary
12.	Form SCA/MTC/012	On Job Training Record
13.	Form SCA/MTC/013	Aircraft Flight Maintenance Log
14.	Form SCA/MTC/014	DMI List
15.	Form SCA/MTC/015	Unserviceable Component List
16.	Form SCA/MTC/016	Receiving Inspection Report
17.	Form SCA/MTC/017	Rejection Notice
18.	Form SCA/MTC/018	Scrap Tag
19.	Form SCA/MTC/019	Material Part Request
20.	Form SCA/MTC/020	Material Store Log
21.	Form SCA/MTC/021	Shelf Life Part Monthly Inspection
22.	Form SCA/MTC/022	Serviceable Tag

23.	Form SCA/MTC/023	Emergency Equipment Inspection and Monitoring List
24.	Form SCA/MTC/024	Equipment Tag
25.	Form SCA/MTC/025	Weight and Balance Form
26.	Form SCA/MTC/026	Swing Compass List
27.	Form SCA/MTC/027	Test Flight Report
28.	Form SCA/MTC/028	General Tool and GSE Control List
29.	Form SCA/MTC/029	Personnel Assessment Check List
30.	Form SCA/MTC/030	Work Order Form
31.	Form SCA/MTC/031	Company Authorization
32.	Form SCA/MTC/032	ADC Record List
33.	Form SCA/MTC/033	Unserviceable Tag
34.	Form SCA/MTC/034	Cannibal Form
35.	Form SCA/MTC/035	Aircraft Spare Kits (Flyway kits) List
36.	Form SCA/MTC/036	Purchase Order
37.	Form SCA/MTC/037	Major Deffect Summary Report
38.	Form SCA/MTC/038	Inspection Personnel Rooster Form
39.	Form SCA/MTC/039	Aircraft Component Status
40.	Form SCA/MTC/040	Project Maintenance Due
41.	Form SCA/MTC/041	Internal Surveillance Audit Finding
42.	Form SCA/MTC/042	AMO Vendor Audit
43.	Form SCA/MTC/043	AMO Vendor Approval Form
44.	Form SCA/MTC/044	Maintenance Shiftlog-Transfer Record
45.	Form SCA/MTC/045	MRO Vendor List
46.	Form SCA/MTC/046	Aircraft Engine Utilization Report
47.	Form SCA/MTC/047	Routine Card Form
48.	Form SCA/MTC/048	Inspection Card Form
49.	Form SCA/MTC/049	Aircraft Return to Service
50.	Form SCA/MTC/050	Summary Inspection Item
51.	Form SCA/MTC/051	Aircraft Check Work Summary
52.	Form SCA/MTC/052	Material and Tools List
53.	Form SCA/MTC/053	Service Difficulty Report

54.	Form SCA/MTC/054	Major Defect Summary Report
55.	Form SCA/MTC/055	Major Repair and Alternation Summary Report
56.	Form SCA/MTC/056	List of Equipment and Tools
57.	Form SCA/MTC/057	Technical Publication List
58.	Form SCA/MTC/058	Temperature and Humidity Control Room
59.	Form SCA/MTC/059	RII Personnel List
60.	Form SCA/MTC/060	Training Student Feedback Form
61.	Form SCA/MTC/061	Tool Borrowing Check List
62.	Form SCA/MTC/062	Self Evaluation
63.	Form SCA/MTC/063	Training Program List
64.	Form SCA/MTC/064	Holding Tag
65.	Form SCA/MTC/065	Deferred Maintenance Item
66.	Form SCA/MTC/066	Robbed Tag
67.	Form SCA/MTC/067	Acceptance Checklist
68.	Form SCA/MTC/068	Airworthiness Directives Review
69.	Form SCA/MTC/069	SB/SL/SI/ICA Review
70.	Form SCA/MTC/070	Record Calibrated Tools and Equipment
71.	Form SCA/MTC/071	Tool Borrowing Form
72.	Form SCA/MTC/072	Data Collection and Analysis

SAMPLE LIST AUTHORIZED PERSONNEL ROSTER

List authorized personnel will be update on form SCA-MTC-38
List Authorized Personnel RII will be update on form SCA-MTC-059

No	NAME	LETTER CODE	DATE OF EMPLOYMENT	JOB TITLE	BASIC LICENSE	AMEL	TYPE RATING	AUTHORIZATION	
								NO	SCOPE
1	ISTIONO	IST	01 NOVEMBER 2020	TECHNICAL MANAGER	A1, A2, , A4, C1, C4	4581	**AIRFRAME:** • C208 SERIES • PILATUS PC6 **ENGINE:** • PT6A SERIES	**SCA 01 RII 01**	**C208 SERIES:** • RTS • MR • RII **PILATUS PC6:** • RTS • MR • RII
2	YANUAR ABDUL FATAH	YAF	01 OCTOBER 2018	CHIEF INSPECTOR	A1, A2, A4	8714	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 07 RII 07**	**C208 SERIES:** • RTS • MR • RII • EGR • W & B • C / S **H130** • W & B • C / S **PC6 PILATUS** • W & B • C / S
3	SAMPURNA HAMBATANA	SMH	01 FEBRUARY 2017	ENGINEER	A1, A3, A4, C4	4870	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 03 RII 03**	**C208 SERIES:** • RTS • MR • RII • EGR
4	AMIN MOKHAMAD SAID	AMS	01 APRIL 2017	ENGINEER	A1, A2, A4	8690	**AIRFRAME:** • C208 SERIES **ENGINE:** PT6A SERIES	**SCA 04 RII 04**	**C208 SERIES:** • RTS • MR • RII EGR

No	NAME	LETTER CODE	DATE OF EMPLOYMENT	JOB TITLE	BASIC LICENSE	AMEL	TYPE RATING	AUTHORIZATION	
								NO	SCOPE
5	DODIT SUPRIANTO	DDS	01 NOVEMBER 2017	ENGINEER	A1, A4	4857	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 05 RII 05**	**C208 SERIES:** • RTS • MR • RII • EGR
6	KRISTIYONO	KRS	01 OCTOBER 2018	ENGINEER	A1, A4	7243	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 08 RII 08**	**C208 SERIES:** • RTS • MR • RII • EGR
7	FEBRI HERMAWAN	FHM	01 NOVEMBER 2018	ENGINEER	A1, A4	6445	**AIRFRAME:** • C208 SERIES • PC6 PILLATUS PORTER **ENGINE:** • PT6A SERIES	**SCA 09 RII 09**	**C208 SERIES:** • RTS • MR • RII • EGR **PC6 PILATUS** • RTS • MR • RII • EGR
8	ROHPININDO N.S PURBA	RNP	01 JUNE 2019	ENGINEER	A1, A4 A2	9634	**AIRFRAME:** • C208 SERIES • PC6 PILLATUS PORTER • EC 130 T2 **ENGINE:** • PT6A SERIES • ARRIEL 2 SERIES	**SCA 11**	**C208 SERIES:** • RTS • MR • RII • EGR **PC6 PILATUS** • RTS • MR • RII **EC 130 T2:** • RTS • MR • RII

No	NAME	LETTER CODE	DATE OF EMPLOYMENT	JOB TITLE	BASIC LICENSE	AMEL	TYPE RATING	AUTHORIZATION	
								NO	SCOPE
9	AGUS SULAEMAN	AGS	03 JANUARY 2020	ENGINEER	A1, A2, A4	6444	**AIRFRAME:** • C208 SERIES • PC6 PILLATUS PORTER **ENGINE:** • PT6A SERIES	**SCA 19** **RII 19**	**C208 SERIES:** • RTS • MR • RII • EGR **PC6 PILATUS** • RTS • MR • RII • EGR
10	DENI SOBALI	DNS	1 MAY 2020	ENGINEER	A1, A4	9632	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 20**	**C208 SERIES:** • RTS • MR • EGR
11	RIZAL GHAZALI	RZG	24 JUNE 2020	ENGINEER	A1, A4	9694	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 21**	**C208 SERIES:** • RTS • MR • EGR
12	IRWAN	IRW	6 JULY 2020	ENGINEER	A1, A2, A4	2096	**AIRFRAME:** • EC 130 T2 **ENGINE:** • ARRIEL 2 SERIES	**SCA 22** **RII 22**	**EC 130 T2:** • RTS • MR • RII
13	MOHAMMAD AZIZ ANDIKA	MAZ	22 JULY 2020	ENGINEER	A1, A4	9633	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 23**	**C208 SERIES:** • RTS • MR • EGR
14	KADEK AGUS JULIARTHA	KDK	26 JULY 2020	ENGINEER	A1,A2,A3,A4	4685	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 25** **RII 25**	**C208 SERIES:** • RTS • MR • RII • EGR

No	NAME	LETTER CODE	DATE OF EMPLOYMENT	JOB TITLE	BASIC LICENSE	AMEL	TYPE RATING	AUTHORIZATION	
								NO	SCOPE
15	DENIAR	DNR	18 AUGUST 2020	ENGINEER	A1, A4	9657	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 26**	**C208 SERIES:** • RTS • MR • EGR
16	WAHYONO	WHO	26 NOVEBER 2020	ENGINEER	A1,A4, C1,C2,C4	5792	**AIRFRAME:** • C208 SERIES • PC6 PILLATUS PORTER **ENGINE:** • PT6A SERIES	**SCA 27** **RII 27**	**C208 SERIES:** • RTS • MR • RII • EGR • C/S **PC6 PILATUS** • RTS • MR • RII • EGR • C/S
17	HENDRO TRIYONO	HTO	26 MARCH 2021	ENGINEER	A1, A4	5583	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	**SCA 28** **RII 28**	**C208 SERIES:** • RTS • MR • RII • EGR
18	ARIS KURNIAWAN	AKR	10 AUGUST 2021	ENGINEER	A1, A4	9523	**AIRFRAME:** • C208 SERIES • PC6 PILLATUS PORTER **ENGINE:** • PT6A SERIES	**SCA 29** **RII 29**	**C208 SERIES:** • RTS • MR • RII • EGR **PC6 PILATUS** • RTS • MR • RII • EGR

No	NAME	LETTER CODE	DATE OF EMPLOYMENT	JOB TITLE	BASIC LICENSE	AMEL	TYPE RATING	AUTHORIZATION	
								NO	SCOPE
19	VANI ANANTA	VAN	01 NOVEMBER 2021	ENGINEER	A1, A4 C1, C2, C4	9659	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	SCA 30	**C208 SERIES:** • RTS • MR • EGR • C/S
20	DEVY ARYA PERMANA	ARY	15 NOVEMBER 2021	ENGINEER	A1, A4	9505	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	SCA 31	**C208 SERIES:** • RTS • MR • EGR
21	BUDI HARTOYO	BHT	26 NOVEMBER 2021	ENGINEER	A1, A4	9506	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	SCA 32	**C208 SERIES:** • RTS • MR • EGR
22	YOHAN SEMBIRING DEPARI	YHN	01 FEBRUARY 2020	ENGINEER	A1, A4	12128	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	SCA 34	**C208 SERIES:** • RTS • MR
23	FIRMAN SYARLI	FRM	20 DECEMBER 2021	ENGINEER	A1, A4	10522	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	SCA 35	**C208 SERIES:** • RTS • MR
24	CEP NANA PRIATNA	CEP		ENGINEER	A1, A4	15114	**AIRFRAME:** • C208 SERIES **ENGINE:** • PT6A SERIES	SCA 36	**C208 SERIES:** • RTS • MR
25	ARUJI GUMILANG	ARJ	15 DECEMBER 2022	ENGINEER	A1, A4	9696	**AIRFRAME:** • C208 SERIES **ENGINE:** PT6A SERIES	SCA 37	**C208 SERIES:** • RTS • MR EGR

Form SCA/MTC/038

No	N a m e	Company Authorization Number	RII. Authorization Number	R.I.I. Authorized Qualification	Stamp
1	ISTIONO	SCA 01	RII 01	C208 SERIES / PC 6	
2	SAMPURNA HAMBATANA	SCA 03	RII 03	C208 SERIES	
3	AMIN M SAID	SCA 04	RII 04	C208 SERIES	
4	DODIT SUPRIYANTO	SCA 05	RII 05	C208 SERIES	
5	YANUAR ABDUL FATAH	SCA 07	RII 07	C208 SERIES / PC 6	
6	KRISTIYONO	SCA 08	RII 08	C208 SERIES	
7	FEBRI HERMAWAN	SCA 09	RII 09	C208 SERIES / PC 6	
8	AGUS SULAEMAN	SCA 19	RII 19	C208 SERIES / PC 6	
9	IRWAN	SCA 22	RII 22	EC 130	
10	KADEK AGUS JULIARTHA	SCA 25	RII 25	C208 SERIES	

Form SCA/MTC/059

Appendix D – List of Inspection Capability

STATION	AIRCRAFT TYPE	CAPABILITY OF MAINTENANCE
SINGKAWANG	Cessna C208/C208B	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection for ID 0A, ID 01, ID 02, ID 03, ID 04, ID 05, ID 06, ID 07, ID 08, ID 09, ID 10, ID 11, ID 12, ID 13, ID 14, ID 15, ID 16, ID 17, ID 18, ID 19, ID 20, ID 21, ID 22, ID 23, ID 24, ID 25, ID 26, ID MA, ID MB, ID ME, ID MF, ID MG, ID MH, ID MI, ID MJ, ID MK, ID ML • Engine inspection Heavy Maintenance up to HSI. • Propeller inspection up to 100 Hours inspection.
	Airbus Helicopters EC 130 T2	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection up to 600 hours, 24 months, 600 hours/24 months, 1 OPC 1000 OPH. • Engine inspection up to 800 hours, 24 months, 800 hours/24 months.
	Pilatus Porter PC-6/B2-H4	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection up to 100 hours / Annual Inspection. • Engine inspection Heavy Maintenance up to HSI. • Propeller inspection up to 100 Hours inspection/ Annual Inspection.

STATION	AIRCRAFT TYPE	CAPABILITY OF MAINTENANCE
NABIRE	Cessna C208/C208B	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection for ID 0A, ID 01, ID 02, ID 03, ID 04, ID 05, ID 06, ID 07, ID 08, ID 09, ID 10, ID 11, ID 12, ID 13, ID 14, ID 15, ID 16, ID 17, ID 18, ID 19, ID 20, ID 21, ID 22, ID 23, ID 24, ID 25, ID 26, ID MA, ID MB, ID ME, ID MF, ID MG, ID MH, ID MI, ID MJ, ID MK, ID ML • Engine inspection Heavy Maintenance up to HSI. • Propeller inspection up to 100 Hours inspection.
	Airbus Helicopters EC 130 T2	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection up to 600 hours, 24 months, 600 hours/24 months, 1 OPC 1000 OPH. • Engine inspection up to 800 hours, 24 months, 800 hours/24 months.
	Pilatus Porter PC-6/B2-H4	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection up to 100 hours / Annual Inspection. • Engine inspection Heavy Maintenance up to HSI. • Propeller inspection up to 100 Hours inspection/ Annual Inspection.

STATION	AIRCRAFT TYPE	CAPABILITY OF MAINTENANCE
MALINAU	Cessna C208/C208B	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection for ID 0A, ID 01, ID 02, ID 03, ID 04, ID 05, ID 06, ID 07, ID 08, ID 09, ID 10, ID 11, ID 12, ID 13, ID 14, ID 15, ID 16, ID 17, ID 18, ID 19, ID 20, ID 21, ID 22, ID 23, ID 24, ID 25, ID 26, ID MA, ID MB, ID ME, ID MF, ID MG, ID MH, ID MI, ID MJ, ID MK, ID ML • Engine inspection Heavy Maintenance up to HSI. • Propeller inspection up to 100 Hours inspection.
	Airbus Helicopters EC 130 T2	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection up to 600 hours, 24 months, 600 hours/24 months, 1 OPC 1000 OPH. • Engine inspection up to 800 hours, 24 months, 800 hours/24 months.
	Pilatus Porter PC-6/B2-H4	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection up to 100 hours / Annual Inspection. • Engine inspection Heavy Maintenance up to HSI. • Propeller inspection up to 100 Hours inspection/ Annual Inspection.

STATION	AIRCRAFT TYPE	CAPABILITY OF MAINTENANCE
TIMIKA	Cessna C208/C208B	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection for ID 0A, ID 01, ID 02, ID 03, ID 04, ID 05, ID 06, ID 07, ID 08, ID 09, ID 10, ID 11, ID 12, ID 13, ID 14, ID 15, ID 16, ID 17, ID 18, ID 19, ID 20, ID 21, ID 22, ID 23, ID 24, ID 25, ID 26, ID MA, ID MB, ID ME, ID MF, ID MG, ID MH, ID MI, ID MJ, ID MK, ID ML • Engine inspection Heavy Maintenance up to HSI. • Propeller inspection up to 100 Hours inspection.
	Airbus Helicopters EC 130 T2	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection up to 600 hours, 24 months, 600 hours/24 months, 1 OPC 1000 OPH. • Engine inspection up to 800 hours, 24 months, 800 hours/24 months.
	Pilatus Porter PC-6/B2-H4	• Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance Program (CMP). • Airframe inspection up to 100 hours / Annual Inspection. • Engine inspection Heavy Maintenance up to HSI. • Propeller inspection up to 100 Hours inspection/ Annual Inspection.

STATION	AIRCRAFT TYPE	CAPABILITY OF MAINTENANCE
TANAH MERAH	• Cessna C208/C208B • Airbus Helicopters EC130 T2 • Pilatus Porter PC-6/B2-H4	Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance program (CMP).
DEKAI	• Cessna C208/C208B • Airbus Helicopters EC130 T2 • Pilatus Porter PC-6/B2-H4	Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance program (CMP).
TARAKAN	• Cessna C208/C208B • Airbus Helicopters EC130 T2 • Pilatus Porter PC-6/B2-H4	Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance program (CMP).
CHARTER FLIGHT STATION	• Cessna C208/C208B • Airbus Helicopters EC130 T2 • Pilatus Porter PC-6/B2-H4	Line maintenance including defect rectification limited to Line Replacement Unit (LRU) in accordance with Continuous Maintenance program (CMP).

CONTRACTED AMO LIST

PT. Smart Cakrawala Aviation is authorized to arrange with other organizations as a maintenance provider to perform its substantial maintenance as follows:

Contracted Organization	Authorized Equipment	Authorized Work Scope
PT. Wira Jasa Angkasa (AMO 145D-897)	Cessna 208/208B	All progressive inspection and overhaul
Pratt & Whiney Canada (SEA) Pte. Ltd (AMO 145F-104)	PT6A Series	Overhaul, Repair Modification, Inspection and Test
AIRFLITE Pty. Ltd (AMO 145F-549)	McCauley & Hartzell	Limited Inspection, repair up to and including Overhaul
BRINKLEY PROPELLER SERVICES (AMO 145F-549)	McCauley & Hartzell	Limited Inspection, repair up to and including Overhaul
Airbus Helicopter Indonesia (AMO145D-883)	Airbus Helicopters EC130 T2	All progressive inspection and overhaul
Safran Helicopter Engines Asia Pte. Ltd (AMO 145F-996)	Arriel Engine Series	Overhaul, Repair Modification, Inspection and Test
Yayasan Jasa Aviasi Indonesia (AMO 145D-231)	Pilatus Porter PC6	Overhaul, Repair Modification, Inspection and Test
PT. SMART CAKRAWALA AVIATION (AMO 145D-1003)	Cessna 208/208 B	Line Maintenance, All progressive inspection, Repair and modification
-	EC130 T2	-Maintenance, Preventive Maintenance and Alteration including defect rectification limited to Line Replacement (LRU) refer to Maintenance Program. -Airframe Inspection 600 hours, 1200 hours, 24 months, 48 month, 600 hours/24 months, 1200 hours/48 month, 1000 OPC, 1000 OPH.