



# TECHNICAL TRAINING PROGRAM

DOCUMENT NUMBER	REVISION NUMBER	DATE
SCA/TEK/3-001	Initial/00	28 June 2019
SCA/TEK/3-001	01	15 August 2019
SCA/TEK/3-001	02	26 September 2019
SCA/TEK/3-001	03	09 October 2020
SCA/TEK/3-001	04	30 March 2021
SCA/TEK/3-001	05	31 October 2022
SCA/TEK/3-001	06	10 February 2023
PT. Smart Cakrawala Aviation		



**PT.SCA**

**MANUAL**

**TECHNICAL TRAINING PROGRAM**

**AMO**

SCA/AMO/3-001

REV.06

**ORIGINAL**



**MINISTRY OF TRANSPORTATION**  
**DIRECTORATE GENERAL OF CIVIL AVIATION**

Jalan Medan Merdeka Barat No. 8  
Jakarta 10110

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Our ref : AU.010/6/3/DKPPU-2023

Jakarta, 3 Maret 2023

To: **Mr. Istiono**  
Maintenance Manager  
PT SMART CAKRAWALA AVIATION  
Smart Building 4th Floor  
Jl. Cideng Timur No.16A, Petojo Utara, Gambir  
Jakarta Pusat 10130 - Indonesia  
Phone: +62 21 6305210  
Fax: +62 21 6324 873  
Email:

Subject: **REVIEW FOR THE APPROVAL OF TECHNICAL TRAINING PROGRAM**

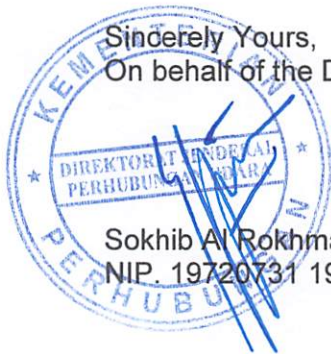
Dear Mr. Istiono,

I refer to the submission of the above mentioned document for review and approval on 10 February 2023.

The document submitted has been reviewed and found in compliance with the Civil Aviation Safety Regulation Part 145 and is Approved.

Thank you for your kind attention and cooperation

Sincerely Yours,  
On behalf of the Director of Airworthiness and Aircraft Operation



Sokhib Al Rokhman  
NIP. 19720731 199501 1 001

Cc : Director of Airworthiness and Aircraft Operation



# MINISTRY OF TRANSPORTATION

## DIRECTORATE GENERAL OF CIVIL AVIATION

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### CONTROL PAGE

TITLE	PAGE	REVISION NO	DATE
Control Page	CP-01		10 February 2023
List of Effective Page	LEP.1	06	10 February 2023
List of Effective Page	LEP.2	06	10 February 2023

The Technical Training Program Manual has been reviewed and found to meet all applicable requirements set forth in the Act No. 1 Year 2009 and Civil Aviation Safety Regulation (CASR). This Technical Training Program Manual is approved for use by PT. Smart Cakrawala Aviation with understanding that Director General of Civil Aviation (DGCA) may require further revisions to this manual as regulatory requirement of airworthiness standard are amended.

Any change to this manual shall be reported to Director General of Civil Aviation (DGCA) for approval.

On behalf of the Director of Airworthiness and Aircraft Operation

**Sokhib Al Rokhman**  
Deputy Director of Airworthiness



**DISTRIBUTION LIST**

<b>Distribution</b>	<b>Assignment (Title and organization Name)</b>
ORIGINAL	Library - SCA
Soft Copy	Chief Inspector - SCA
Soft Copy	President Director - SCA
Soft Copy	Indonesian DGCA
Soft Copy	Technical Manager - SCA
Soft Copy	Chief Maintenance - SCA
Soft Copy	Chief Technical Services - SCA

### RECORD OF REVISION

This record of revisions shall be retained in this Training 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.

REVISION NUMBER	REVISION DATE	INSERTION DATE	INSERTED BY (Name in BLK)
00	28 June 2019	28 June 2019	CHAIRI
01	15 August 2019	15 August 2019	CHAIRI
02	26 September 2019	26 September 2019	CHAIRI
03	09 October 2020	07 January 2021	ISTIONO
04	30 March 2021	31 March 2021	ISTIONO
05	31 October 2022	02 December 2022	Agus Sulaeman
06	10 February 2023	13 February 2023	Agus Sulaeman

### HIGHLIGHT OF REVISION

REVISION NUMBER	REVISION DATE	CHAPTER	PAGE	DESCRIPTION OF CHANGED
00	28 June 2019	All	All	First Issuance
01	15 August 2019	cover	-	Change rev. number
		RR	RR.1	Add new rev.
		RH	RH.1	Add new highlight
		LEP	LEP.1	Adjusted new rev.
		TOC	TOC.1-TOC.2	Adjust pages and add new pages
		Ch.2	2.1	Add new paragraph
			2.3	Added Layout of classroom
			2.7-2.11	Added examination procedure
		Ch.3	3.1	Revised recurrent description
		Ch.5	5.8-5.13	Add new recurrent and initial
02	26 September 2019	App.C	C.1	Add new instructor and capabilities
		App G	G.1	Added examination form
		cover	-	Change rev. number
		RR	RR.1	Add new rev.
		RH	RH.1	Add new highlight
		LEP	LEP.1	Adjusted new rev.
		TOC	TOC.1-TOC.2	Adjust pages and add new pages
		Ch.1	1.1	Added Technical Support and Auditor in "Scope"
			1.2	Added sub chapter Manual Control System
			1.3	Added sub chapter Manual Revision and Distribution Procedures
			1.4	Added sub chapter Company Registered Name and Address
		Ch.2	2.5-2.6	Added sub chapter 2.12 (training needs assessment)
		Ch.3	3.2	Added AMO Manual and QC Manual in the table.
			3.3	Added Auditor in the matrix.
			3.4	Added AMTO for type rating training, removed type rating recurrent from capability, added policy for training other than capabilities.
		Ch.4	4.1	Change the wording of Q&S Department into Chief Inspector.
		Ch.5	5.3	Added AMO Manual and QC Manual Syllabus.

03	09 October 2020	Cover	-	Change rev. number and Chief Inspector
		Distribution List	DL.1	Change Distribution List
		Record of Revision	RoR.1	Change Record of Revision
		Highlight of Revision	RH.1	Add new highlight
			RH.2	Add new highlight
		LEP	LEP.1	Adjusted new rev.
			LEP.2	Change Chief Inspector
		Ch.5	5.9	Added Recurrent Syllabus EC130 & BELL12
			5.15-18	Added Initial Training Syllabus EC130 & BELL12
04	30 March 2021	Appendix C	C.1	Revise sample Instructors
		Cover	-	Change rev. number
		Record of Revision	RoR.1	Change Record of Revision
		Highlight of Revision	RH.2	Add new highlight
		LEP	LEP.1	Adjusted new rev. chapter 3
			LEP.2	Updated approval
		TOC	TOC.2	Adjust pages number
		Ch.1	1.4	Updated Company address
		Ch.3	3.1	Add Categories of Training
			3.2	Add Categories of Training
			3.3	Add Categories of Training
			3.6	Revise Training Capability
		5	5.1	Revise indoctrination
			5.1	Revise CMM training by Operator
			5.19	Add training AS 350/355
			5.20	Add training AS 350/355
05	31 October 2022	Cover	-	Change rev. number
		Distribution List	DL.1	Change Distribution List
		Record of Revision	RoR.1	Change Record of Revision
		Highlight of Revision	RH.2	Add new highlight
		LEP	LEP.1	Adjusted new rev
			LEP.2	Updated approval
		Ch. 1	1.4	Add address Aeropolis
		Ch. 2	2.3	Add Classroom& Layout Aeropolis
		Ch. 3	3.4	Add Training Program Accessories
			3.6	Add Training Capability Accessories
		Ch. 5	5.9	Removed Training Robinson
			5.13	Removed Syllabus Robinson
			5.14	Removed Syllabus Robinson
		Appendix C	C.1	Update Sample Instructor
		Appendix D	D.1	Updated Sample Training Program



06	10 February 2023	Cover	-	Change revision number
		Record of Revision	RoR.1	Change Record of Revision
		Highlight of Revision	RH.3	Add Page new highlight
		LEP	LEP.1	Adjusted new revision
			LEP.2	Updated approval
		Ch. 5	5.9	Add recurrent Training BK-117 (EC/H-145)
			5.13	Add Syllabus Training BK-117 (EC/H-145)

### List of Effective Pages

Chapter	Page	Rev No.	Date	Chapter	Page	Rev No.	Date
	cover	06	10 Feb 2023		3.5	02	26 Sep 2019
	DL.1	05	31 Oct 2022		3.6	05	31 Oct 2022
	RR.1	06	10 Feb 2023		-	-	-
	RH.1	03	09 Oct 2020	<b>Ch. 4</b>	4.1	02	26 Sep 2019
	RH.2	05	31 Oct 2022		-	-	-
	RH.3	06	10 Feb 2023	<b>Ch. 5</b>	5.1	04	30 March 2021
	LEP.1	05	31 Oct 2022		5.2	04	30 March 2021
	LEP.2	05	31 Oct 2022		5.3	02	26 Sep 2019
	TOC.1	02	26 Sep 2019		5.4	00	28 Jun 2019
	TOC.2	05	31 Oct 2022		5.5	00	28 Jun 2019
	TOC.3	02	26 Sep 2019		5.6	00	28 Jun 2019
<b>Ch. 1</b>	1.1	02	26 Sep 2019		5.7	00	28 Jun 2019
	1.2	02	26 Sep 2019		5.8	00	28 Jun 2019
	1.3	02	26 Sep 2019		5.9	06	10 Feb 2023
	1.4	05	31 Oct 2022		5.10	01	15 Aug 2019
	-	-	-		5.11	01	15 Aug 2019
<b>Ch. 2</b>	2.1	01	15 Aug 2019		5.12	01	15 Aug 2019
	2.2	00	28 Jun 2019		5.13	06	10 Feb 2023
	2.3	05	31 Oct 2022		5.14	05	31 Oct 2022
	2.4	00	28 Jun 2019		5.15	03	09 Oct 2020
	2.5	02	26 Sep 2019		5.16	03	09 Oct 2020
	2.6	02	26 Sep 2019		5.17	03	09 Oct 2020
	2.7	00	28 Jun 2019		5.18	03	09 Oct 2020
	2.8	01	15 Aug 2019		5.19	04	30 March 2021
	2.9	01	15 Aug 2019		5.20	04	30 March 2021
	2.10	01	15 Aug 2019		-	-	-
	2.11	01	15 Aug 2019				
	2.12	01	15 Aug 2019				
	-	-	-				
<b>Ch. 3</b>	3.1	04	30 March 2021				
	3.2	04	30 March 2021				
	3.3	04	30 March 2021				
	3.4	05	31 Oct 2022				

## LIST OF EFFECTIVE PAGES

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CHAPTER	SECTION	SUB SECTION	TITLE	Page No.
	2.12		Training Needs Assessments	2.5
	2.13		Procedure for Developing New Course / Training Program	2.7
	2.14		Approval of Training Course by DGCA	2.7
	2.15		Procedure for Annual Training Program	2.8
	2.16		Conducting Examination	2.8
	2.17		Guidelines on Preparation and Evaluation of Examinations	2.10
	2.18		Training Records	2.12
3			<b>TRAINING PROGRAM</b>	
	3.1		Categories of Training	3.1
	3.2		Training Program	3.4
	3.3		Training Matrix	3.5
	3.4		Training Capability	3.6
4			<b>EVALUATION</b>	
	4.1		General	4.1
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	4.3		Scope of Audit	4.1
	4.4		External Training Provider	4.1
5			<b>SYLLABUS</b>	
	5.1		Basic Indoctrination	5.1
	5.2		Company Maintenance Manual	5.2
	5.3		AMO Manual and QC Manual	5.3
	5.4		Required Inspection Item	5.4
	5.5		Safety Management System	5.5
	5.6		Human Factors in Maintenance	5.6
	5.7		Aircrafts Type Rating Recurrent	5.7
	5.8		Aircrafts/Component/Accessories Type Rating Initial	5.11

CHAPTER	SECTION	SUB SECTION	TITLE	Page No.
			Appendix A	A.1
			Appendix B	B.1
			Appendix C	C.1
			Appendix D	D.1
			Appendix E	E.1
			Appendix F	F.1



### 1.1 Introduction

This Training Manual is established as a reference for Smart Aviation in conducting trainings both Internal and External for aircraft type ratings/managerial/supports/soft skills Training to meet the requirements of Internal Regulations, CASR and other applicable requirements related to training and people development.

The training programs in this manual, which are developed and conducted either by Smart Aviation or external approved Training Providers, are standardized based on the required criteria to comply with the applicable competency requirements.

Employees will obtain the required licenses or certificates after finishing the training and/or passed the exam. It will assure them to be competent to perform tasks on their daily activities as Smart Aviation professional personnel.

### 1.2 Objectives

The objectives of this Training Manual are:

1. To centralized and standardized the Company trainings.
2. To administer and manage training professionally.
3. To improve quality of training and personnel competency to sustain safe and continuous operation.
4. To ensure training adequacy to all employees.
5. To standardized instructor's quality and qualifications.
6. To ensure that training programs are completed timely, effectively and efficiently.
7. To identify and develop training requirements for all employees.
8. To increase optimization of the in-house training capability.
9. To achieve and maintain the required level of trainings as required by regulations.
10. To describe the training procedures for new employees, in-house and ex-house training.
11. To ensure that every employee has met the training requirements and needs to perform his/her tasks.
12. To ensure compliance with relevant statutory and safety requirements in relation with trainings.

### 1.3 Scope

This Training Manual shall be implemented to all Smart Aviation's Technical Department staffs, Supervisors, Chiefs, Engineers, Technical Support, Storeman, Inspectors and Auditors.

### 1.4 Responsibilities

Technical Manager is responsible for his / her sub-ordinate for the trainings requirements and needs.

### 1.5 References

This Training Manual was developed with references of:

1. CASR.
2. Company Rules and Regulations.
3. Other applicable regulations.

### 1.6 Manual Control System

#### 1.6.1. Policy

Each Quality Control 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.

#### 1.6.2. Page Control System

##### a. Record of Revision

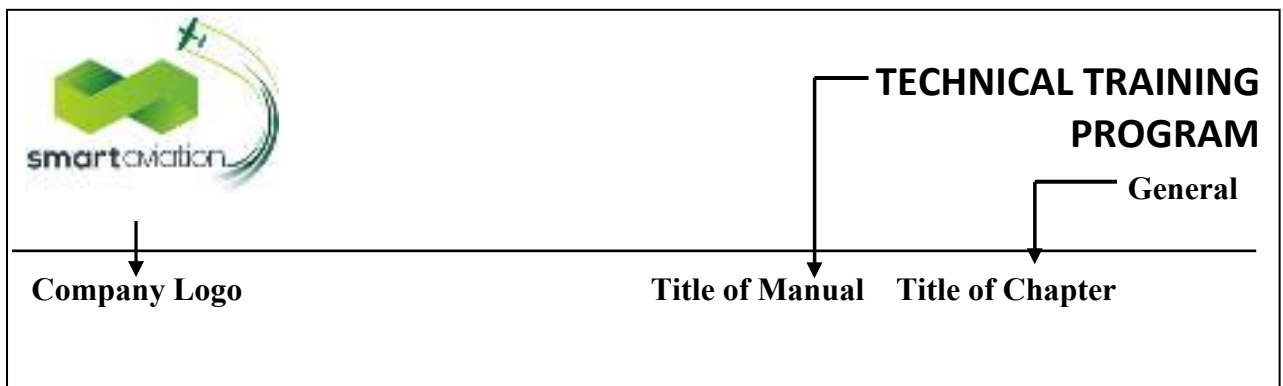
Designed to quickly identify the current revision status of the manual.

##### b. List of Effective Pages

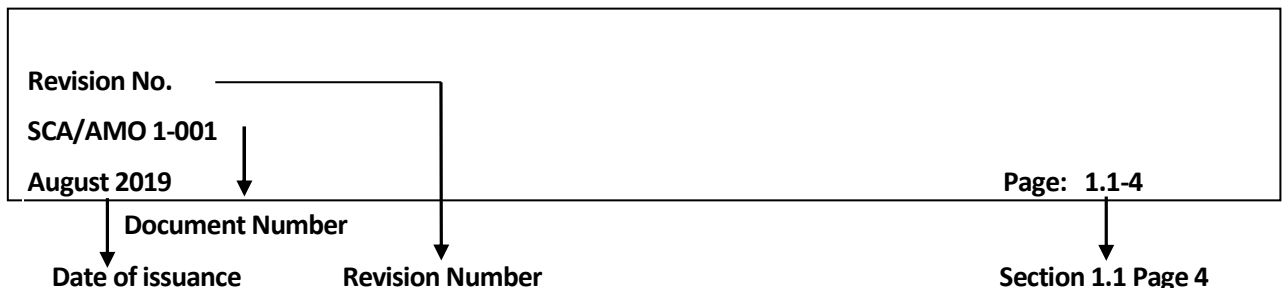
Designed to provide a summary listing of all applicable pages and the revision date for the entire manual

##### c. Page Format

#### *Top of the Page*



#### *Bottom of the Page*





### 1.7 Manual Revision and Distribution Procedure

#### 1.7.1. Revision Procedures

- a. All amendments, revisions, and/or alterations to the Technical Training Program 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 Technical Training Program Manual are the responsibility of Chief Inspector. 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. Chief Inspector will review the Technical Training Program Manual with all relevant unit concern. These reviews will either confirm that the manual still current and valid for the company 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 reviewed by the Chief Inspector and submit to DGCA for Acceptance. Upon Acceptance by DGCA, sufficient copies will be made and distributed the revision page or the whole new revision manual to DGCA and each manual holder as listed in the Distribution List.
- 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 Chief Inspector.



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

**1.7.2. Distribution List**

The Technical Training Program 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 TTP Manual, but this manual is not controlled and invalid manual.

Chief Inspector will distribute this Quality Control Manual to the listed functions as master list of the Quality Control Manual page Manual Distribution List.

**1.7.1 Company Registered Name and Address**

**Head Office PT. Smart Cakrawala Aviation**

Gedung Smartdeal Lt.4  
Jalan Cideng Timur No.16A  
Jakarta Pusat 10130,  
Indonesia  
Phone : + 62 6305210  
Fax : + 62 6324873

**Branch Office PT. Smart Cakrawala Aviation**

Elang Laut Raya No.30 Jl. Pantai Indah Selatan 1, Penjaringan,  
Jakarta Utara 14460,  
Indonesia. +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. Avionic Shop Facility-Semarang**

Bengkel Pusat Penerbangan Angkatan Darat  
Jl. Kalibanteng Kulon, Semarang Barat 50145,  
Indonesia.

**4. Maintenance Shop Facility Aeropolis**

Komplek Pergudangan Aeropolis  
Cluster C Kode Unit WH.E.S 28 & WH.E.S 30  
Selapajang jaya, Neglasari, Tangerang, Banten, Indonesia

### 2.1 Type of Training

There are three (3) types of trainings in term of how they are conducted:

1. Training fully conducted by Smart Aviation which is called In-house Training.
2. Training conducted by Smart Aviation, but with external trainer / training provider which is called In-house Training with External Trainer.
3. Training conducted by external training providers which is called Ex-house Training.

### 2.2 Annual Training Calendar

Annual Training Calendar was prepared and developed by Technical Manager, reviewed by Chief Inspector and Approved by Accountable Manager / President Director. Annual Training Calendar must include the needs and requirements of each Smart Aviation Technical Department personnel to maintain their capabilities and skills to perform their tasks.

Annual Training Calendar must be reviewed and evaluated quarterly for the implementation. Any discrepancies of the program to the implementation must be analyzed and reported to the Accountable Manager / President Director.

### 2.3 In-house Training Procedure

1. Chief Inspector informs / reminds Technical Manager regarding to the Annual Training Calendar.
2. Technical Manager informs the personnel who will follow the training and arrange the shift so it will not disturb maintenance operation.
3. Instructor is well informed regarding the training schedule.
4. HR & GA Department prepare the class room and make sure all the needs of the class room are met the Instructor's request.
5. Instructor may conduct an examination, if necessary, at the end of the class or at the end of every chapter / section of the training subject.
6. Instructor shall make a report to the Technical Manager after the class over, the report must contain:
  - a. Subject of the training.
  - b. Duration of each subject (in minutes).
  - c. Attendance list.
  - d. Instructor comment.
  - e. Examination results (if any).
7. Technical Manager will issue a certificate base on the report of the instructor to every participant.
8. Any formal training course developed for an approved training scheme and it is intended for the granting of certification privileges, the training syllabus shall be approved by DGCA.

### 2.4 In-house Training with External Trainer / Training Provider Procedure

1. Chief Inspector informs / reminds Technical Manager regarding to the Annual Training Calendar.
2. Technical Manager informs the personnel who will follow the training and arrange the shift so it will not disturb maintenance operation.

3. By involving the Chief Inspector, Technical Manager decide to choose the best external trainer / training provider based on the following criteria:
  - a. The trainer / training provider has been assessed by Chief Inspector.
  - b. Have required licenses or approval from applicable institutions.
  - c. The trainer shall meet the requirements for instructors as mentioned in this manual.
  - d. The training materials may be customized with Smart Aviation's needs.
  - e. The methods shall match with training objectives and materials.
  - f. The training aids shall be provided as required.
4. HR & GA Department prepare the class room and make sure all the needs of the class room are met the Instructor's request.
5. Instructor may conduct an examination if necessary, at the end of the class or at the end of every chapter / section of the training subject.
6. Instructor shall make a report to Technical Manager after the class over, the report must contain:
  - a. Subject of the training.
  - b. Duration of each subject (in minutes).
  - c. Attendance list.
  - d. Instructor comment.
  - e. Examination results (if any).
7. Technical Manager or respected training provider will issue a certificate base on the report of the instructor to every participant.

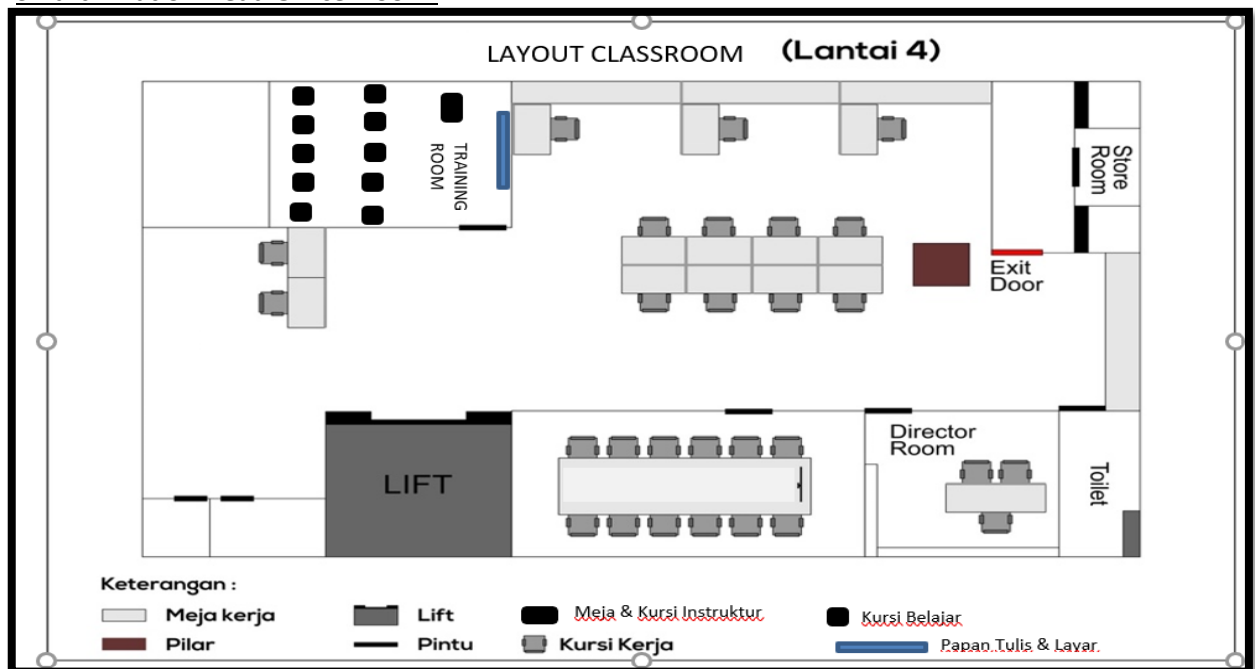
### **2.5 Ex-house Training Procedure**

1. Chief Inspector informs / reminds Technical Manager regarding to the Annual Training Calendar.
2. Technical Manager informs the personnel who will follow the training and arrange the shift so it will not disturb maintenance operation.
3. By involving Chief Inspector, Technical Manager decide to choose the best external trainer / training provider based on the following criteria:
  - a. The trainer / training provider has been assessed by Chief Inspector.
  - b. Have required licenses or approval from applicable institutions.
  - c. The trainer shall meet the requirements for instructors as mentioned in this manual.
  - d. The training materials may be customized with Smart Aviation's needs.
  - e. The methods shall match with training objectives and materials.
  - f. The training aids shall be provided as required.
4. HR & GA Department shall prepare the accommodation and transport for the participant during his / her trainings session.

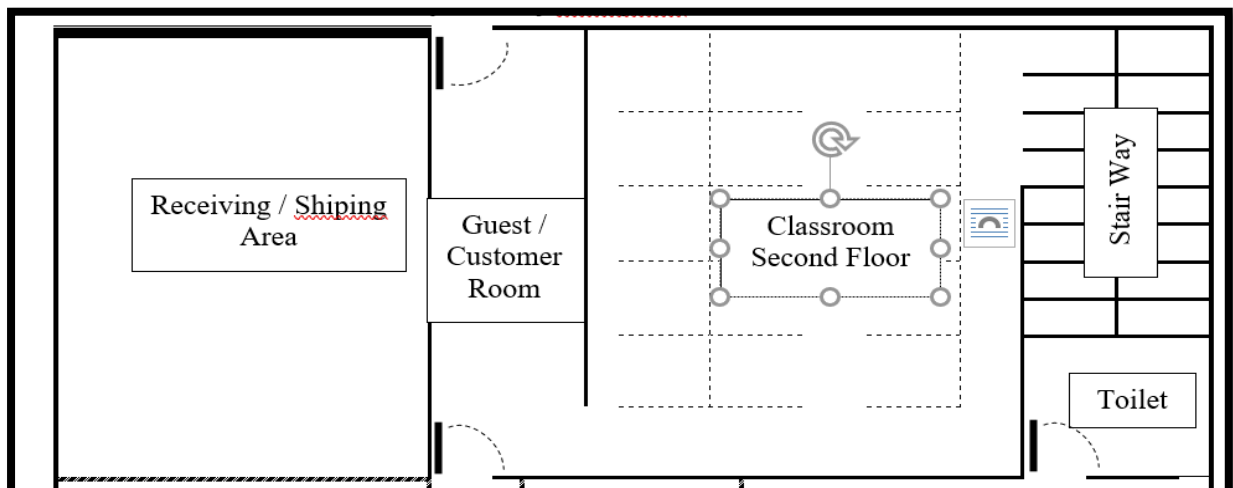
### 2.6 Classroom Facilities

1. Classroom is located in the Smart Aviation Head Office and Work Shop Aeropolis.
2. The size of the classroom is limited to a maximum 10 students per class.
3. White board and multi-colors marker must be available.
4. At least one projector and the screen must be available.
5. Tables and chairs must be provided according to numbers of participants.
6. The class must have a good air circulation and comfortable for everyone in the room.
7. The class must have a good and suitable lighting environment.
8. The class must have a good noise absorbing capability to prevent outside noise couldn't hear from the inside, vv.

#### Smart Aviation Head Office Floor 4



#### Work Shop Aeropolis Floor 2



### 2.7 Instructors Main Duties and Responsibilities

1. Help to develop lesson plan for basic and advance training purposes.
2. Prepare training materials including instructional training aids or other aids for the instruction and training purposes.
3. Give instructions and trainings in order to develop the knowledge and skills and to alter the attitude of the trainees to reach the required standard.
4. Encourage and direct trainees to reach the training objectives with active two-way communication during training process.
5. Evaluate various aspects connection with the training and instruction matters.
6. Develops methods, parameters, evaluating matters, standards and regulations matters to be used in evaluating the trainees.
7. Prepare examination questions and give scores in accordance with the required standard.
8. Evaluate and take action of the trainee's evaluation result for method, materials and instruction techniques.
9. Assist in analyzing the company needs in developing program, curriculum, and syllabus, training material, methods and training aids.

### 2.8 General Requirements for Instructors

1. At least 21 years of age.
2. Have a good character, knowledge and experience.
3. Graduates from minimum Diploma 3 or equivalent (if applicable).
4. Able to read, write, speak, and understand English language.
5. Have been trained for at least Basic Training for Trainers, Basic Instructor Course or equivalent.
6. Hold a valid appropriate license (if applicable)
7. Shall have attended or passed the subjects under his/her expertise.

### 2.9 Requirements for Maintenance Instructors

1. Minimum 5 years experienced as AMEL holder.
2. Have minimum experience on aircraft type for one (1) year.
3. Up-date instructional knowledge and expertise on a continuing basis.
4. Perform re-current training of type rating aircraft, to continue and up-date knowledge and experience.

### 2.10 List of Instructors

The list of instructors can be found in Appendix C in this manual.

### 2.11 Preparing and Conducting Course

1. Technical Manager shall appoint one of his / her staff acting as a Training Officer (TO).
2. TO shall ensure that the training materials are available at least one week before the course start.

3. TO shall ensure that the classroom, charts, training materials, etc. are ready one day before the course.
4. Classroom allocation & regulation
  - j. The instructor concerned is responsible for checking and ensuring the classroom arrangement is acceptable and the training equipment and course materials are available before the course starts.
  - k. On completion of a phase of a course the instructor concerned will ensure that all wall charts, training aids, equipment and reference material belonging to company are removed from the classroom and returned to the respective storage area.
  - l. The instructor shall also ensure that all participants adhere to the classroom regulation.
5. Course time table
  - a. Respective TO shall prepare the course time table at least one week prior to start of each course. Copies of the time table shall be distributed to the instructors and issued to the participants on the first day. Course time table shall provide an outline of each day's activities, giving the names of the instructors and the time of each topic.
  - b. A course program may be arranged to meet variation of training techniques but the normal start and finish for class will be conducted on Monday to Friday, except for National Holidays, unless otherwise noted. Normal class hours are conducted as follows, including 2 short breaks in the morning and afternoon:
 

Monday - Thursday	
COMMENCE	: 08.30
REST	: 12.00 – 13.00
FINISH	: 16.30
Friday	
COMMENCE	: 08.30
REST	: 11.45 – 13.30
FINISH	: 16.30
  - c. Instructors are to ensure that the course time table is strictly adhered to classes are not to be left unattended and instruction must commence at the stated time.
  - d. Consistent late arrival by a student is to be reported to the TO.
6. Aircraft visits
  - a. Before conducting an aircraft visits, TO shall coordinate with Chief Inspector for better arrangement and preparation.
  - b. Training instructors are responsible for the control and discipline of their trainees during visit. Trainees are not allowed to operate any controls or switches unless the training instructors grant permission.

### 2.12 Training Needs Assessment

SCA needs assessment is a two-part process that determines SCA overall needs assessment requirements and individual needs assessment requirements.

#### 1. Overall Needs Assessment

To determine its overall need assessment requirements, the Technical Manager and Chief Inspector must review SCA approval stated in Operations Specifications (OpSpecs); capability list; job title duties and responsibilities; technical job title and tasks; customer requirements; past, current, and expected scope of work; employment procedures for hiring; and current employee experience levels.



# TECHNICAL TRAINING PROGRAM

## CHAPTER 2 – PROCEDURES

This needs-assessment will result in a description of the knowledge and skill standards for each defined job title as stated in technical personnel list.

Employees will then be assessed against the personnel list for the respective job title. If it is determined that an employee does not possess the competency to perform a maintenance (including inspection), preventive maintenance, or alteration task then appropriate training will be administered.

SCA continuously evaluates its overall assessment needs. However, SCA will specifically revise the training program when:

- It identifies additional training needs
- Changes to its ratings, facilities, equipment, or work scope require additional training.

### 2. Individual Needs Assessment

SCA has established personnel list for each job title based upon technical functions/tasks and will assess an individual to determine what knowledge, experience, or training establishes competency to properly perform the work.

Whenever SCA hires a new employee or transfer an employee to a new job title, the employee's new supervisor will assess the individual's skill level and qualifications against the requirements for the assigned functions or tasks. Each supervisor and the HR Department determine what training is necessary and ensure the individual's training record is updated to reflect the assessment and training requirements. The supervisor will also work with the HR Department to ensure the individual receives the necessary training in the appropriate timeframe.

### 3. Identification of Training Needs

Technical Manager and Chief Inspector will review and identify additional training needs at least once a year through:

- The needs assessment outlined in this training program.
- DGCA and/or other authority findings.
- Investigations that lead to voluntary disclosures.
- Routine or special quality assurance audits.
- Internal Occurrence Reporting System/Feedback from employees.
- Feedback from employees.

The additional training result should be inserted in technical personnel training records.

### 4. Change to SCA work scope

Whenever SCA is planning to change its facilities, equipment, or scope of work as reflected in its Opspecs or capability list, Technical Manager in coordination with Chief Inspector will conduct a review of its current training program. The need for additional training will be based on an analysis of the new work to be performed and the competency of employees should be inserted in technical personnel list.

Appropriate changes will be made to initial, recurrent, and specialized training, including existing or the addition of new training, job title, and individuals requiring the training, and schedule of new training needs should be implemented and completed.

### 2.13 Procedure for Developing New Courses / Training Program

1. When a new training course is to be developed, the following procedures shall be adopted:
  - a. Consult to user and jointly examine the job. If necessary, prepare a job description.
  - b. Analyze the job in term of knowledge and skill to determine training requirements.
  - c. State the objectives of the training to set performance standard.
  - d. Prepare a syllabus of sufficient depth to define the contents and standards of the course.
  - e. Prepare the course materials, training aids, examination questions and practical training schedule where necessary.
  - f. Every new course should be evaluated to determine its effectiveness. Evaluation should focus on the followings:
    - The course has been effective in meeting the training objectives.
    - The trainees graduating from the course can meet the performance standards set by the user department.
2. Course content and standard
  - a. Courses are conducted in accordance with an approved syllabus.
  - b. The syllabus should contain:
    - An outline of the subject to be thought.
    - The standards of training defined in terms of knowledge and skill levels (course objectives) to be attained by the trainee.
    - The teaching sequence and time allocated for each topic.
    - The experience and qualification of intended trainees.
  - c. The preparation and interpretation of syllabus into a training program is the responsibility of the Chief Inspector. When necessary, the syllabus shall be prepared in close collaboration with user.
  - d. The final approval of a syllabus for a course required by the Technical Department rests with the Chief Inspector.
  - e. In respect to technical trainings, syllabi for type of courses designed to meet DGCA licensing or company's authorization examination must be approved by DGCA. The application for such approval is the responsibility of the Chief Inspector.
  - f. Manufacturer course shall be used as the basic guidelines for all Smart Aviation's type courses.

### 2.14 Approval of Training Course by DGCA

1. Where a formal training course is developed for an approved training scheme and it is intended for the granting of certification privileges, the training syllabus shall be approved by DGCA.
2. When applying for approval, the following documents shall be submitted to DGCA:
  - a. Copy of course syllabus
  - b. Course program
  - c. A set of examination papers
  - d. List of instructor's qualifications
  - e. Instructor's curriculum vitae (CV)
3. DGCA approvals for training courses are necessary with respect to the preparation of Engineers and Inspectors.
4. Once the syllabus approved, no alteration or amendments may be made without approval of Technical Manager and DGCA.



5. DGCA inspectors may follow and audit or surveillance any approved training course to ensure that it is conducted in accordance with the policy and procedures of this approved manual.

### 2.15 Procedure for Annual Training Program

1. The training commitment for the Smart Aviation's Technical staffs covers a period of twelve months beginning 1<sup>st</sup> January of each financial year.
2. Technical Manager shall submit their training requirements for the next year to the President Director.
3. Technical Manager shall prepare a draft program and submit for discussion with Chief Inspector.
4. The finalized program in the annual training program will be circulated to all users.
5. The annual training program will be reviewed periodically as dictated by changes in the training requirements between the respective parties.
6. President Director must be informed in writing immediately of any changes made in the published annual training program. A copy of the advice will be extended to the HR & GA Department so that classroom allocation can be amended immediately.

### 2.16 Conducting Examination

1. The following defines in general terms the examination procedures which must be strictly adhered to by all staff who are required to ensure the integrity of the examination at all times:
  - a. Instructor or authorized examiner/supervisor is responsible for the safe transportation of the question papers to and from the examination room.
  - b. Examination will be supervised by an instructor or authorized examiner/supervisor. If there are two supervisors, one of them will be responsible for the examination and security arrangement.
  - c. Where possible examinations are to be held in a room reserved for this purpose. In cases when the examinations have to be held in the classroom where the instruction is taking place. The instructor or examiner shall ensure that the room has been checked and does not contain wall charts, panel diagrams or any other training materials, etc. Considered to provide necessary assistance or distraction to students.
  - d. Training manuals, notebooks, etc. is to be placed in such a position so that they cannot be referred to during the examination.
  - e. Blank papers for rough working are not issued to students. All rough working will be done on the reverse side of the answer sheets.
  - f. Examination room seating is to be arranged so as to provide maximum separation of candidates.
  - g. Candidates are not allowed discretion as to their seating arrangement.
  - h. The instructor will adequately brief the candidates on the examination procedures prior to the commencement of the examination.
  - i. A candidate who is late for an examination without a valid reason forfeits the time lost and stops writing at the same time as the other candidates. Any candidate who is more than 20 minutes late will not be allowed to enter the examination room.
  - j. Candidates will not be allowed to leave the examination room before the lapse of 20 minutes from the time of commencement of the examination.
  - k. The Training Officer provides a list of names of the candidates for the examination to the instructor or examiners/supervisor. Instructor or examiner/supervisor checks the identity of every candidate against his/her identity card, airport pass or any other identification

papers. Any person without proper identification and cannot prove that he is the correct candidate for the examination will not be allowed to sit for the examination.

- l. The instructor/examiner/supervisor ensures that the requirements as stated in examination instruction on the front page of the examination prior distributing the question papers. Borrowing is not allowed.
- m. The instructor/examiner/supervisor ensures that the requirements as stated in examination instructions on the front page of the examination papers are strictly adhered to by the candidates.
- n. Every answer sheet is to be clearly filled with the full name, staff number and signature of the candidate. An answer sheet without this information will be declared null and void and will not be assessed.
- o. The instructor/examiner/supervisor must refrain from:
  - 1) Talking or removing about unnecessary.
  - 2) Attempting to read what a candidate is writing.
  - 3) Making comments on the exam papers or progress of candidate either to the candidate concerned or to another instructor/examiner/supervisor.
- p. The instructor/examiner/supervisors ensure that the candidates are under supervision for the entire of the examination and a close watch kept detecting any evidence of cheating, fraud or irregular behavior of the candidates. Communication among candidates in the examination room is strictly forbidden.
- q. Not more than one candidate is allowed to the toilet at any time. Candidates should empty their pockets before going to the toilet.
- r. Any deviation that could jeopardize the conduct and security of the examination will be investigated in to by the instructor/examiner/supervisor and reported to Technical Manger.
- s. If a candidate is caught cheating, he will be disqualified from the examination, that is, his examination papers will be taken from him/her and he/she will have to leave the examination room.
- t. At the end of the examination the instructor/examiner/supervisor checks that the correct number of answer sheets, writing paper and question papers are submitted by individual candidates. Individual candidates submit the question papers. The question papers should be checked for any marking or defacement and have the correct number of pages. The instructor/examiner/supervisors also check for candidates' signatures on the answer sheets and correct, personal particulars on Examination Answer Sheet (TRN-08) before allowing the candidates to leave the room.
- u. Dishonest acts during examination:
  - 1) A candidate shall not commit a dishonest act in or in relation to an examination applicable to a license, authorization, or certificate.
  - 2) Where a candidate commits a dishonest act in or in relation to an examination:
    - a) He/she shall be deemed not to have passed the examination, and
    - b) He/she is not entitled to sit for an examination applicable to a license, authorization, or certificate for a period of 12 months from the date of the first mentioned examination.
- v. Wherever possible examinations are to be conducted with an overnight break between completion of the instruction and examination, with preference to a weekend break. This will not apply to the last examination of a course or when the course terminates with an examination.

### 2. Examination Questions

- a. The preparation of engineers for license examination should meet the CASR Part 121, 135. But the preparation non licensed staff should meet the procedures of examination.
- b. The Technical Manager is responsible for the development of the examination questions. He must ensure that the questions meet the specific requirements of each course, and that the questions are clear, coincide and contain no ambiguity.
- c. Technical Manager is responsible for ensuring that periodic revisions are carried out so that questions of ambiguous or controversial nature, or those outdated by system modifications or changed procedures are removed and that suitable replacement questions are supplied to provide at least 30% variation of questions for all examinations

### 3. Examination Preparation

- a. All training instructors are responsible for the preparation of examination questions and submit to the respective Training Officer for selection.
- b. The Instructor is assisted by Training Officer is responsible for the selection of questions from the examination library and will prepare a master copy of the proposed examination papers. Required number of examination paper will then be printed and filed under security until required.
- c. Questions related to a course should be stored in the question bank using the secured printed document format (pdf). The Technical Manager is responsible for ensuring that the questions is up to date and two separate back files are available.

### 4. Retention and Shredding of Examination Papers and Documentation

- a. The group examination result sheets of a course shall be retained by Training Officer until the end of the course, after which the result sheets and the student profile forms duly filled will be handed over to the Training Officer.
- b. All examination results should be treated confidentially, as such the result should only be released to the Technical Manager.
- c. On completion of the course, all question papers will be collected. All answer sheets as well all documentation regarding the training, will be retained for a minimum period of twelve months from the completion date of the course and will be destroyed or shredded thereafter.

#### 2.17 Guidelines on Preparation and Evaluation of Examinations

1. Examinations are required for the purpose of establishing proof that the knowledge of the students is to meet the required standard and it is the duty of Technical Manager to ensure that the examination questions are such quality and content to meet these requirements.
2. Students who miss more than 5% of the course curriculum (subject course examination) through absence shall not qualify for any experience credit unless the lost time is made up through documented supplementary studies which include the portions of the curriculum equivalent to those missed from the original program.

3. When writing multiple choice questions, the following points should be noted:
  - a. The problems or questions should be presented clearly in the stem or opening statement. The problem or question should be clearly stated so that the examinees should not be required to guess the intent of the writer.
  - b. Both stem and responses or options should be brief and straightforward. The candidates should have a clear idea of what the question is about by the time he has read the statement.
  - c. The stem must be positive and double negative avoided, as they tend to confuse the candidate.
  - d. Any information of phrases or words, which can be given in the stem, should be included to avoid repetition in each of the option.
  - e. Use simple, clear, direct and unambiguous language. Make sure that more than one meaning cannot be placed on the question words in the question.
  - f. Avoid the use “none of these” as an option.
  - g. Check that abbreviations used are recognized abbreviations in the category and may reasonably expected to be known to the candidate.
  - h. Check that there is only one correct answer or response. The answer must not be given in incorrect wording or structure. Check that clues to the correct response may look better because it is longer or more precise. The use of such words as “only” in distracters can often point to the correct response being elsewhere. The careless use of the stem may isolate distracter. Distracters which deny an action or condition described in the stem are often ineffective distracters- the candidate easily sensing that it is the correct response. Check that words in the stem do not point to a particular response, which is the correct one.
4. Examination Question Evaluation
  - a. Examination question should be prepared by instructors at least one week before commencing examination, and the questions is submitted to Training Officer for reproduction as necessary.
  - b. The type of examination questions can be:
    - 1) Multiple choices with minimum 25 questions and maximum 50 questions, with four responses.
    - 2) Essay with minimum 5 questions.
  - c. The examination questions must refer to instructional objectives (TIK).
5. Examination Performance Standard
  - a. All examinations are conducted according to the following systems:
    - 1) Type course examinations shall be conducted at the end of each distinct group.
    - 2) The questions shall be essay and or multiple-choice form with four responses.
    - 3) The time allowed for candidates attempting the 4-response type multiple choice questions examination is 1.5 minutes per question.
    - 4) Each question carries equal marks in percentage points, making an aggregate score 100% for the examination.

- 5) Marks are awarded to each question answered correctly. **No marks are given to questions not attempted and no have penalty marks for each incorrect answer.**
- 6) The final result is calculated by using the formula:

$$S = \Sigma R - \Sigma W$$

Where:

S	= final score result
$\Sigma R$	= sum of questions
$\Sigma W$	= sum score of wrong answer

- 7) To obtain a pass, a candidate must score a minimum of 80% in each group examination.
- 8) If a candidate scores between 75% and below 80%, he will be required to re-sit for examination within one week after the completion of the course.
- 9) A score below 75% is considered fail. The candidate is required to undergo additional training on the group (s) he or she has failed. There shall be only one re-sit of failed examination. Re-sit of the failed examination shall be taken within three months of completing the course. Applications for re-sit of the examination must be made at least one week before the intended date of the examination.
- 10) Candidates who score below 75% in the re-sit or fail to take the examination within the stipulated period are considered to have failed the course examination.

### 2.18 Training Records

Training records are used to listing the records of training and qualification status including its capability of the personnel in performing their tasks.

Detail training records files are based on each one individual maintenance personnel kept current and retained by the Technical Department.

### 3.1 CATEGORIES OF TRAINING

Training at Smart Aviation especially for Technical personnel (maintenance) are categorized in accordance with the requirements.

**1. INITIAL, including:**

- a. Indoctrination
- b. Maintenance/Inspection Technical Training
- c. Specialized technical training

**2. RECURRENT**

**3. REMEDIAL**

Based on demonstrated need.

#### 3.1.1 INITIAL TRAINING

**(a) Indoctrination**

Indoctrination Training is an informative course, New staff joining are provided Induction Training to assimilate themselves with the company set up and regulations pertaining to the particular persons work area. The requirement for Indoctrination Training will be assessed by the particular employee's department.

Indoctrination Training must be done within one 1) month of joining PT Smart Cakrawala Aviation and duration training eight (8) hours.

Technical Personnel means Engineer, Technician, Inspector.

**Classification Indoctrination Training:**

- Basic Indoctrination (All employees)
- Company Maintenance Manual by Operators (All Technical personnel)
- AMO & QC Manual (All Technical personnel)
- Required Inspection Item (Engineers and Inspectors)
- Safety Management System (All employees)
- Human Factor in Maintenance (All Technical personnel)
- Dangerous good/Hazardous Material (Store personnel)

The following subjects should be addressed in the indoctrination, regardless of the company's size and requiring training for different categories of employees.

- 1) CASR requirements, particularly those associated with the company maintenance functions and authority as reflected on the Certificate and operations specifications.
- 2) Company manuals, policies, procedures, and practices, including quality control processes, particularly those associated with ensuring compliance with maintenance/inspection, preventive maintenance, and alteration procedures established to show compliance with CASR.
- 3) Maintenance human factors training is part of a total system in managing human error. It is an essential part of a system aimed at individuals engaged in hands on maintenance, and those who supervise and plan maintenance activity. Human factors training should cover the basic safety principles and practices integrated within a maintenance organization's program.
- 4) Computer systems and software, as applicable to the company maintenance (including inspection), preventive maintenance and alteration systems and procedures.
- 5) Facility security for all employees.

### **(b) Maintenance/Inspection Technical Training**

#### **Type Rating Training**

To provide Level 3 theoretical and practical training to candidates as a requirement for obtaining an DGCA AMEL.

All aircraft/engine type courses will be conducted by an approved Part-147 training organization or Manufacture or by an Part-145 organization approved by the Indonesia DGCA.

Theoretical training and practical training may be carried out in the Part-147 training organization or may be carried out in Smart Cakrawala Aviation-AMO/AOC by the Part-147 training organization subject to the approval of the Indonesia DGCA.

Examination pass mark is set by the Part-147 organization and is generally 75%

### **(c) Specialized technical training**

Special maintenance/inspection training programs are required when new techniques and/or different types of aircraft and/or equipment are introduced, and addition to the regulatory training requirements, such as:

1. Type Tasks Training.
2. New technologies update by AD/SB.
3. Performance Based Navigation (PBN) Maintenance Personnel Training.
4. Non-Destructive Test (NDT).
5. Welding.
6. Train the Trainer.
7. Hot Section Inspection.
8. Borescope Inspection.
9. Propeller Overhaul.
10. Part Receiving Inspection.
11. Flame and/or plasma spray operations
12. Structure Repair training:
  - SRM Structure Damage Assessment Course
  - Structure Repair Manual (SRM)
  - Sheet Metal/Composite Repair.

### 3.1.2 RECURRENT TRAINING

All Technical Personnel shall receive sufficient recurrent (continuation) training in each 24-month period to ensure that they have up to date knowledge of relevant technology, company procedures and human factor issues, SI 8900-6.5 refers Training will be periodically reviewed and upgraded to incorporate new information.

Where there are any changes of company procedures, authority's requirement, human factor matters, quality and safety issues etc. the relevant position holder will receive continuation training, the training method consists of classroom training.

Course duration will be nominally one day with an extension of an additional day when required by the introduction of subject matter.

Recurrent Training will be conducted by the Smart Cakrawala Aviation instructor/Technical Manager/Chief Inspector or another approved company instructor/organization or Manufacture or Approved-147 organization.

Classification Recurrent Training:

1. Human Factor in Maintenance
  - a. All Technical personnel.
  - b. Mandatory for AMEL holder with recurrence every 24 months.
2. Non-Destructive Test
  - a. Mandatory for NDT Personnel holder with recurrence every 60 months.
3. Type rating
  - a. AMEL Holder if not certify/working at least 6 months of 24 months retention – Recurrent course 17.25 hours
  - b. AMEL Holder certify/working at least 6 months of 24 months retention – Refresher course 8 hours

### 3.1.3 REMEDIAL TRAINING

Remedial training procedures to rectify an employee's demonstrated lack of knowledge or skill by providing information as soon as possible.

In some instances, remedial training may consist of an appropriately knowledgeable person reviewing procedures with an employee through on-the-job training (OJT). Remedial training should be designed to fix an immediate knowledge or skill deficiency and may focus on one individual.

Successful remedial training should show an individual what happened, why it happened, and in a positive manner, how to prevent it from happening again. Remedial training may be included in the company's definitions of initial or recurrent training requirements



### 3.2 TRAINING PROGRAM

No	Subject	Aspect Coverage
<b>A. GENERAL / SUPPORTING SUBJECT</b>		
1	New Employment Orientation	Smart Aviation Indoctrination
2	Administration Training	English, MS Office, etc.
3	Managerial Course	Effective Supervisory
<b>B. SPECIFIC SUBJECT</b>		
1	Human Factors	Human Factors in Maintenance
2	Quality Management System	Auditor, Basic Inspector
3	Hazard and Safety	Aviation Safety / SMS, Fire Drills, First Aid
4	Instructor Course	Training of Trainer, Basic Instructor Course
5	Ground Support	Ramp Handling, Refueling
<b>C. MAIN CORE SUBJECT</b>		
1	Technical Procedures and Regulations	CMM, AMO Manual, QC Manual, CASR
2	Aircraft Type Rating Initial, Component/Accessories	Initial Airframe, Engine, Avionic, Propeller, Stargen as mentioned in AMO OPSPEC/CAP-LIST as revise.
3	Aircraft Type rating Recurrent	Recurrent Airframe, Engine and Avionic as mentioned in ACL and AMO OPSPEC
4	Specialist	Sheet Metal & Composite Repair, Parts Receiving, Technical Records, Storeman, etc.
5	Aircraft Technical Knowledge	Basic Airframe, Basic Gas Turbine Engine, Basic Avionic

### 3.3 TRAINING MATRIX

GROUP	1. Technical Manager	2. Chief Inspector	3. Chief Maintenance	4. Engineer	5. Inspector	6. Technical Support	7. Mechanic	8. Storeman	9. Instructor	10. Specialist	11. Auditor
SUBJECT											
A.1	ot	ot	ot	ot	ot	ot	ot	ot	ot	ot	ot
A.2	ot / a.r	ot / a.r	ot / a.r	ot / a.r	ot / a.r	ot / a.r	ot / a.r	ot / a.r	ot / a.r	ot / a.r	ot / a.r
A.3	ot	ot	ot	a.r	a.r	a.r	a.r	a.r	a.r	a.r	a.r
B.1	24	24	24	24	24	ot	24	ot	ot	24	24
B.2	a.r	ot	a.r	a.r	ot	a.r	-	a.r	a.r	a.r	ot
B.3	ot	ot	ot	ot	ot	ot	ot	ot	ot	ot	ot
B.4	-	-	-	-	-	-	-	-	ot	-	-
B.5	ot	ot	ot	ot	ot	-	ot	-	ot	a.r	ot
C.1	12	12	12	12	12	12	12	12	12	12	12
C.2	ot	ot	ot	ot	ot	a.r	-	-	ot	-	-
C.3	a.r	a.r	a.r	a.r	-	-	-	-	a.r	-	-
C.4	-	-	-	-	ot	ot	a.r	ot	ot	ot	a.r
C.5	a.r	a.r	a.r	a.r	a.r	a.r	ot	-	a.r	a.r	a.r

#### Notes:

- Numbers indicate the interval in months(s)
- a.r = as requested / required; if applicable the number of months may be given
- ot = one time
- New hire employee shall undertake company basic indoctrination training.

### 3.4 TRAINING CAPABILITY

Type Rating or Component/Accessories training (Initial and Recurrent) for Smart Aviation's personnel are conducted in Manufacture or Approved Maintenance Training Organization (AMTO) under CASR 147 or by Smart Cakrawala Aviation in subject approved by Indonesia DGCA.

The trainings are consisting of both theoretical and practical. In any circumstances, Smart Aviation may propose approval for such training (Online or Offline) to be performed In-house, either with external or internal trainer.

Below are the trainings which conducted by Smart Aviation (In-house):

1. Basic Indoctrination
2. Company Maintenance Manual by operators
3. AMO Manual & QC Manual
4. Required Inspection Item
5. Safety Management System
6. Human Factors in Maintenance
7. Dangerous Good (Hazardous Material)

Any training other than mentioned above, may be conducted by certified training providers or training organizations (Ex-house).



### 4.1 General

Smart Aviation develops a quality assurance program to ensure that the training program reflects best practices. This program will include periodic evaluation of training program, training curriculum/syllabus, trainers, training material to ensure that the performance measured detailed in the quality assurance program is being met.

### 4.2 Procedure

1. Chief Inspector is responsible to conduct an annual audit to the training program within Smart Aviation.
2. Chief Inspector will notify the Technical Manager prior audit in written.
3. Quality Auditor may also conduct surveillance anytime with prior information. The audit report is submitted to Technical Manager to be reviewed and follow up the findings, the finding which is closed shall be reported to Quality Auditor.
4. Quality Auditor must verify all closed audit findings.

### 4.3 Scope of Audit

The audit activity must cover the following subjects:

1. Management
2. Training Program Manual
3. Curriculum and Syllabus
4. Rating and Authorization
5. Staffs (instructors) qualification
6. Training Records
7. Training Facilities

### 4.4 External Training Provider

To assure that external trainings are conducted in accordance with applicable regulations and Smart Aviation's requirements, Chief Inspector shall conduct an audit/surveillance to every external training provider who conducts trainings for Smart Aviation's employees. The audit may be conducted by visiting the facility or by sending questionnaire only. This audit/surveillance shall conduct annually.

### 5.1 Basic Indoctrination

1. Training Objectives
  - a. Knowing the business of Smart Aviation
  - b. Knowing the Technical Department in Smart Aviation
  - c. Knowing the location of Smart Aviation office and its maintenance facility
  - d. Knowing and understand the employee's rights and responsibilities within organization
2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Company Specific <ul style="list-style-type: none"> <li>- Certificate of Approval</li> <li>- Operation Specification</li> <li>- Facility Security</li> </ul>	0.5
2	CASRs 135/145/43/21/65, etc.	1
3	Company Policies and Procedures (1 hour) <ul style="list-style-type: none"> <li>- AMO manual</li> <li>- QC Manual</li> <li>- TTP Manual</li> </ul>	1
4	Minimum Equipment List (0.5 hour)	0.5
5	Aircraft Inspection Program (1 hour)	1
6	Airworthiness Directives (1 hour)	1
7	Aircraft Systems Familiarization (1 hour)	1
8	Hazardous Material (1 hour)	1
9	Maintenance Human Factor (1 hour)	1
	Total Hours	8

3. Trainees Qualification
 

Mandatory for new employees

### 5.2 Company Maintenance Manual by Operators

#### 1. Training Objectives

- Know the quality policy of Smart Aviation
- Know the organization in the Smart Aviation's Technical Department and its job description
- Know the capability of Smart Aviation's Technical Department.
- Understand the function of each position in the organization.
- Understand the procedure of maintenance, tooling, parts request.
- Understand the maintenance record system and how to fill it.

#### 2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.5
2	Smart Aviation Organization, ACL, Opspec & Facilities	0.5
3	Maintenance Procedures (tools, parts, tagging, etc.)	3
4	Maintenance records & PPC	1
5	Quality control procedures (receiving, records, etc.)	2
6	Smart Aviation's Forms	1
	Total Hours	8

#### 3. Trainees Qualification

- Mandatory for Technical personnel (mechanics, avionics, engineers, inspectors, technical support, storeman)
- Optional training for general staffs.

### 5.3 AMO Manual and QC Manual

#### 1. Training Objectives

- a. Know the quality policy of Smart Aviation
- b. Know the organization in the Smart Aviation's Technical Department and its job description
- c. Know the capability of Smart Aviation's Technical Department.
- d. Understand the function of each position in the organization.
- e. Understand the procedure of maintenance, tooling, parts request.
- f. Understand the maintenance record system and how to fill it.

#### 2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.5
2	Smart Aviation Organization AMO, Opspec & Facilities	0.5
3	Maintenance Procedures (tools, parts, tagging, etc.)	3
4	Maintenance records & PPC	1
5	Quality control procedures (receiving, records, etc.)	2
6	Smart Aviation's Forms	1
	Total Hours	8

#### 3. Trainees Qualification

- a. Mandatory for Technical personnel (mechanics, avionics, engineers, inspectors, technical support, storeman, auditor)
- b. Optional training for general staffs.

### 5.4 Required Inspection Item

1. Training Objectives
  - a. Trainees know his responsibilities as RII Inspector.
  - b. Understand the method of inspections.
  - c. Understand the criteria of RII.
2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Review Required Inspection Item (RII) Inspector responsibilities	2
2	Review portions of CASR	2
3	The item of RII tasks	2
4	RII Category Systems Review	2
Total Hours		8

3. Trainees Qualification  
Qualified Engineers and Inspectors shall follow this training.



### 5.5 Safety Management System

1. Training Objectives
  - a. Trainees know the safety policy and objectives in the company.
  - b. Understand the method of hazard identification and risk assessment.
  - c. Understand the criteria about the corrective action and safety indicators.
2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Description of the Safety Management System	0.5
2	Commitment of senior management	0.5
3	Roles and responsibilities of staff and management	1
4	Description, role and responsibility of the Safety Manager, Roles, responsibility, and lines of communication within the company as it relates to the Safety Management	2
5	The occurrence reporting and notification system	1
6	The audit role within a Safety Management System	0.5
7	The safety culture and a just reporting system	0.5
8	Investigation of occurrences and safety related incidents	1
9	The risk management process	1
Total Hours		8

3. Trainees Qualification
 

All employees in the company shall follow this training.

### 5.6 Human Factors in Maintenance

1. Training Objectives
  - a. Understand of Human factor definition in aviation.
  - b. Know the history of Human Factor and its relation to accidents
  - c. Understand the relation between People, Environments, Actions and Resources (PEAR)
  - d. Know the type of error could be to human
  - e. The “Dirty Dozen”

2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.5
2	What is Human Factors?	0.5
3	History of Human Factors	1
4	The PEAR model	2
5	Human Errors	1
6	Dirty Dozen	3
Total Hours		8

3. Trainees Qualification
  - a. All Technical personnel.
  - b. Mandatory for AMEL holder with recurrence every 24 months.

### 5.7 Aircrafts Type Rating Recurrent

#### 5.7.1 Cessna Caravan C208/C208B

1. Training Objectives
  - a. Know the updating of technology, technical data, etc., regarding its aircraft type.
  - b. Trainee involve in group discussion of sharing technical problem within its type of aircraft.
2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.25
2	Chapter 4 Airworthiness Limitation	0.25
3	Chapter 5 Time Limits / Maintenance Check	0.25
4	Chapter 6 Dimensions and Areas	0.25
5	Chapter 7 Lifting and Shoring	0.25
6	Chapter 8 Leveling and Weighing	0.25
7	Chapter 9 Towing and Taxiing	0.25
8	Chapter 10 Parking and Mooring	0.25
9	Chapter 11 Placards and Markings	0.25
10	Chapter 12 Servicing	0.25
11	Chapter 20 Standard Practices	0.50
12	Chapter 21 Air Conditioning	0.50
13	Chapter 22 Autoflight	0.50
14	Chapter 23 Communications	0.50
15	Chapter 24 Electrical Power	1
16	Chapter 25 Equipment and Furnishings	0.50
17	Chapter 26 Fire Protection	0.25
18	Chapter 27 Flight Control	1
19	Chapter 28 Fuel	0.50
20	Chapter 29 Hydraulic Power	0.25

21	Chapter 30 Ice and Rain Protection	0.25
22	Chapter 31 Indicating and Recording Systems	1
23	Chapter 32 Landing Gear	0.25
24	Chapter 33 Lights	0.50
25	Chapter 34 Navigation	0.50
26	Chapter 35 Oxygen	0.25
27	Chapter 36 – 37 Pneumatics / Vacuum	0.25
28	Chapter 51 – 57 Structures	0.50
29	Chapter 61 Propellers	1
30	Chapter 71, 72, 75, 78 Powerplant	1
31	Chapter 73 Engine Fuel and Control	1
32	Chapter 74 Ignition	0.50
33	Chapter 76 Engine Control	1
34	Chapter 77 Engine Indicating	0.50
35	Chapter 79 Oil	0.50
36	Chapter 80 Starting	0.25
Total Hours		17.25

### 3. Trainees Qualification

- a. AMEL Holder.

### 5.7.2 EC130/BELL 412/AS 350/AS355/BK117 (EC/H-145)

#### 1. Training Objectives

- Know the updating of technology, technical data, etc., regarding its aircraft type.
- Trainee involve in group discussion of sharing technical problem within its type of aircraft.

#### 2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.25
2	Chapter 01 General	0.25
3	Chapter 04 Airworthiness Limitation	0.50
4	Chapter 05 Inspection	1
5	Chapter 06 Dimension and Description	0.50
6	Chapter 07 Jacking and Hoisting	0.25
7	Chapter 08 Weight and Balance	0.50
8	Chapter 09 Ground Handling	0.25
9	Chapter 10 Parking and Storage	0.25
10	Chapter 11 Placards and Marking	0.25
11	Chapter 12 Servicing	0.50
12	Chapter 18 Track and Balance	1
13	Chapter 20 Standard Practices	1
14	Chapter 21 Environment Control	0.50
15	Chapter 22 Autopilot	0.50
16	Chapter 25 Furnishing	0.50
17	Chapter 28 Fuel System	1
18	Chapter 29 Hydraulics	1
19	Chapter 32 Landing Gear	0.50
20	Chapter 33 Light	0.50

21	Chapter 52 Doors and Window	0.50
22	Chapter 53 Fuselage	1
23	Chapter 62 Main Rotor	1
24	Chapter 63 Main Rotor Drive System	1
25	Chapter 64 Tail Rotor	1
26	Chapter 65 Tail Rotor Drive System	1
27	Chapter 67 Flight Controls	1
28	Chapter 71 Powerplant	2
29	Chapter 75 Engine Air System	1
30	Chapter 76 Engine Control	0.50
31	Chapter 79 Engine Oil System	1
32	Chapter 95 Instrument System	0.50
33	Chapter 96 Electrical System	0.50
34	Chapter 97 Avionic	0.50
35	Chapter 98 Wiring Diagram	0.50
36	Chapter 99 Special Tools	0.50
37	Chapter 100 Revision Log	0.25
Total Hours		24.5

### 3. Trainees Qualification

- a. AMEL Holder.

### 5.8 Aircraft Type Rating Initial

#### 5.8.1 Cessna Caravan C208/C208B

##### 1. Training Objectives

- Know the updating of technology, technical data, etc., regarding its aircraft type.
- Trainee involve in group discussion of sharing technical problem within its type of aircraft.

##### 2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.25
2	Chapter 4 Airworthiness Limitation	0.5
3	Chapter 5 Time Limits / Maintenance Check	0.5
4	Chapter 6 Dimensions and Areas	0.5
5	Chapter 7 Lifting and Shoring	0.5
6	Chapter 8 Leveling and Weighing	0.5
7	Chapter 9 Towing and Taxiing	0.5
8	Chapter 10 Parking and Mooring	0.5
9	Chapter 11 Placards and Markings	0.5
10	Chapter 12 Servicing	0.5
11	Chapter 20 Standard Practices	1
12	Chapter 21 Air Conditioning	1
13	Chapter 22 Autoflight	1
14	Chapter 23 Communications	1
15	Chapter 24 Electrical Power	2
16	Chapter 25 Equipment and Furnishings	1
17	Chapter 26 Fire Protection	0.5
18	Chapter 27 Flight Control	2
19	Chapter 28 Fuel	1
20	Chapter 29 Hydraulic Power	0.5

21	Chapter 30 Ice and Rain Protection	0.5
22	Chapter 31 Indicating and Recording Systems	2
23	Chapter 32 Landing Gear	0.5
24	Chapter 33 Lights	1
25	Chapter 34 Navigation	1
26	Chapter 35 Oxygen	0.5
27	Chapter 36 – 37 Pneumatics / Vacuum	0.5
28	Chapter 51 – 57 Structures	1
29	Chapter 61 Propellers	2
30	Chapter 71, 72, 75, 78 Powerplant	2
31	Chapter 73 Engine Fuel and Control	2
32	Chapter 74 Ignition	1
33	Chapter 76 Engine Control	2
34	Chapter 77 Engine Indicating	1
35	Chapter 79 Oil	1
36	Chapter 80 Starting	0.5
Total Hours		34.25

### 3. Trainees Qualification

- a. Basic Certificates (A1 & A4) Holder.



### 5.8.2 BK-117 (EC/H-145)

#### 1. Training Objectives

- Know the updating of technology, technical data, etc., regarding its aircraft type.
- Trainee involve in group discussion of sharing technical problem within its type of aircraft.

#### 2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	General	3.15 hrs
2	Lifting System	4.15 hrs
3	Fuselage	4.30 hrs
4	Tail Unit	3.15 hrs
5	Flight Control	6.0 hrs
6	Landing Gear	1.30 hrs
7	Power Plant	4.30 hrs
8	Standard Equipment	2.45 hrs
9	Avionics	3.15 hrs
10	Electrical System	2.45 hrs
11	Inspection	2.45 hrs
12	Autopilot	1.15 hrs
13	Review CASR and AD/SB	4.45 hrs
14	Practical	12.0 hrs
15	Exam	2.0 hrs
<b>Total Hours</b>		<b>62.0 hrs</b>

#### 3. Trainees Qualification

- Basic Certificates (A2 & A4), (C1,C2,C4) Holder.

**“Intentionally Left Blank”**

### 5.8.3 EC 130H

#### 1. Training Objectives

- Know the updating of technology, technical data, etc., regarding its aircraft type.
- Trainee involve in group discussion of sharing technical problem within its type of aircraft.

#### 2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.25
2	Chapter 01 General	0.50
3	Chapter 04 Airworthiness Limitation	0.50
4	Chapter 05 Inspection	4
5	Chapter 06 Dimension and Description	1
6	Chapter 07 Jacking and Hoisting	0.50
7	Chapter 08 Weight and Balance	1
8	Chapter 09 Ground Handling	0.50
9	Chapter 10 Parking and Storage	0.50
10	Chapter 11 Placards and Marking	0.50
11	Chapter 12 Servicing	1
12	Chapter 18 Track and Balance	2
13	Chapter 20 Standard Practices	1
14	Chapter 21 Environment Control	1
15	Chapter 22 Autopilot	1
16	Chapter 25 Furnishing	1
17	Chapter 28 Fuel System	1
18	Chapter 29 Hydraulics	1
19	Chapter 32 Landing Gear	0.50
20	Chapter 33 Light	0.50

21	Chapter 52 Doors and Window	0.50
22	Chapter 53 Fuselage	1
23	Chapter 62 Main Rotor	1
24	Chapter 63 Main Rotor Drive System	1
25	Chapter 64 Tail Rotor	1
26	Chapter 65 Tail Rotor Drive System	1
27	Chapter 67 Flight Controls	1
28	Chapter 71 Powerplant	8
29	Chapter 75 Engine Air System	1
30	Chapter 76 Engine Control	1
31	Chapter 79 Engine Oil System	1
32	Chapter 95 Instrument System	1
33	Chapter 96 Electrical System	1
34	Chapter 97 Avionic	1
35	Chapter 98 Wiring Diagram	1
36	Chapter 99 Special Tools	0.50
37	Chapter 100 Revision Log	1
Total Hours		42.50

### 3. Trainees Qualification

a) Basic Certificates (A2 & A4) Holder.

### 5.8.4 BELL 412

#### 1. Training Objectives

- Know the updating of technology, technical data, etc., regarding its aircraft type.
- Trainee involve in group discussion of sharing technical problem within its type of aircraft.

#### 2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.25
2	Chapter 01 General	0.50
3	Chapter 04 Airworthiness Limitation	0.50
4	Chapter 05 Inspection	4
5	Chapter 06 Dimension and Description	1
6	Chapter 07 Jacking and Hoisting	0.50
7	Chapter 08 Weight and Balance	1
8	Chapter 09 Ground Handling	0.50
9	Chapter 10 Parking and Storage	0.50
10	Chapter 11 Placards and Marking	0.50
11	Chapter 12 Servicing	1
12	Chapter 18 Track and Balance	2
13	Chapter 20 Standard Practices	1
14	Chapter 21 Environment Control	1
15	Chapter 22 Autopilot	1
16	Chapter 25 Furnishing	1
17	Chapter 28 Fuel System	1
18	Chapter 29 Hydraulics	1
19	Chapter 32 Landing Gear	0.50
20	Chapter 33 Light	0.50
21	Chapter 52 Doors and Window	0.50

22	Chapter 53 Fuselage	1
23	Chapter 62 Main Rotor	1
24	Chapter 63 Main Rotor Drive System	1
25	Chapter 64 Tail Rotor	1
26	Chapter 65 Tail Rotor Drive System	1
27	Chapter 67 Flight Controls	1
28	Chapter 71 Powerplant	8
29	Chapter 75 Engine Air System	1
30	Chapter 76 Engine Control	1
31	Chapter 79 Engine Oil System	1
32	Chapter 95 Instrument System	1
33	Chapter 96 Electrical System	1
34	Chapter 97 Avionic	1
35	Chapter 98 Wiring Diagram	1
36	Chapter 99 Special Tools	0.50
37	Chapter 100 Revision Log	1
Total Hours		42.50

### 3. Trainees Qualification

- a. Basic Certificates (A2 & A4) Holder.

### 5.8.5 AS 350/AS355

1. Training Objectives
  - a) Know the updating of technology, technical data, etc., regarding its aircraft type.
  - b) Trainee involve in group discussion of sharing technical problem within its type of aircraft.

### 2. Training Subject and Time Allocated

No	Training Subject	Time Allocation
1	Introduction	0.25
2	Chapter 01 General	0.50
3	Chapter 04 Airworthiness Limitation	0.50
4	Chapter 05 Inspection	4
5	Chapter 06 Dimension and Description	1
6	Chapter 07 Jacking and Hoisting	0.50
7	Chapter 08 Weight and Balance	1
8	Chapter 09 Ground Handling	0.50
9	Chapter 10 Parking and Storage	0.50
10	Chapter 11 Placards and Marking	0.50
11	Chapter 12 Servicing	1
12	Chapter 18 Track and Balance	2
13	Chapter 20 Standard Practices	1
14	Chapter 21 Environment Control	1
15	Chapter 22 Autopilot	1
16	Chapter 25 Furnishing	1
17	Chapter 28 Fuel System	1
18	Chapter 29 Hydraulics	1
19	Chapter 32 Landing Gear	0.50
20	Chapter 33 Light	0.50

21	Chapter 52 Doors and Window	0.50
22	Chapter 53 Fuselage	1
23	Chapter 62 Main Rotor	1
24	Chapter 63 Main Rotor Drive System	1
25	Chapter 64 Tail Rotor	1
26	Chapter 65 Tail Rotor Drive System	1
27	Chapter 67 Flight Controls	1
28	Chapter 71 Powerplant	8
29	Chapter 75 Engine Air System	1
30	Chapter 76 Engine Control	1
31	Chapter 79 Engine Oil System	1
32	Chapter 95 Instrument System	1
33	Chapter 96 Electrical System	1
34	Chapter 97 Avionic	1
35	Chapter 98 Wiring Diagram	1
36	Chapter 99 Special Tools	0.50
37	Chapter 100 Revision Log	1
Total Hours		42.50

### 3. Trainees Qualification

- a. Basic Certificates (A2 & A4) Holder.



### SAMPLE OF FORM ATTENDANCE LIST

#### ATTENDANCE LIST

(Form No. SCA-MTC-TRN-01)

Course Title :

Date :

Venue :

#### 1. TRAINEES

No.	Name	ID Number	Signature		Remarks
1			1	2	
2					
3			3	4	
4					
5			5	6	
6					

#### 2. INSTRUCTORS

No.	Name	ID Number	Subject	Time		Signature
				From	To	
1						
2						
3						
4						
5						

### TRAINING COURSE DELIVERY – EVALUATION REPORT

(Form No. SCA-MTC-TRN-02)

Training Title :

Date :

Instructors :1.

2.

3.

#### Allocation of Marks on a scale 0 - 5

5= Excellent	4=Good	3=Average/Fair	2=Below Average	1.Not Up to Standard	0=Omitted
--------------	--------	----------------	-----------------	----------------------	-----------

EVALUATION CRITERIA	REMARKS	POINTS
<b>INTRODUCTION</b>		
Stimulating Trainees		
Effective Timing title / subject		
Importance of Lesson addressed		
Objectives / Scopes of lesson are given		
<b>INSTRUCTIONAL TECHNIQUES</b>		
Effective use of voice		
Effective use of questions to students		
Effective eye contact		
Effective use of body language / gestures		
Effective movement around the class		
Enthusiasm / Motivation during presentation		
Effective handling questions from trainees		
<b>USE OF TEACHING AIDS</b>		
Effective use of teaching aids		
Quality of teaching aids		
<b>CONCLUSION</b>		
Summary of important facts		
Summary in line with Objectives		



# TECHNICAL TRAINING PROGRAM

## APPENDIX - B

<b>Positive Remarks</b>
<b>Critical Remarks</b>
<b>Recommendation</b>

TOTAL POINTS	
89-100	Outstanding met all requirements and delivered in an excellent manner
67-88	Above average, message is clearly delivered drawing interest and participation of trainees
45-66	Message is delivered and understandable, Objectives are met
23-44	Message is delivered but somewhat difficult to understand, Objectives are barely met
1-22	Message is incomplete or difficult to understand, objectives are not met

EVALUATOR	
NAME	SIGNATURE

### SAMPLE LIST OF INSTRUCTORS

(Form No. SCA-MTC-TRN-03)

No.	Name	ID Number	Qualification
1	Istiono	10920090	<ul style="list-style-type: none"> <li>• Basic Indoctrination</li> <li>• Required Inspection Item</li> <li>• Safety Management System</li> <li>• Human Factor in Maintenance</li> </ul>
2	Agus Sulaeman	10120062	<ul style="list-style-type: none"> <li>• Basic Indoctrination</li> <li>• Required Inspection Item</li> <li>• Human Factor in Maintenance</li> </ul>
3	Kistari Milenianingsih	2072079	<ul style="list-style-type: none"> <li>• Safety Management System</li> </ul>

### SAMPLE OF APPROVED TRAINING PROGRAM 2019 (Form No. SCA-MTC-TRN-04)

NO	SUBJECT TRAINING	MONTH												REMARK
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
1														
2														
3														
4														
5														
6														
7														
8														

LEGEND



PLANNED



PERFORMED



RE-PAN

Jakarta, 27 December 2022

Prepared By

Approved By

Technical Manager

Director/Accountable Manager



# TECHNICAL TRAINING PROGRAM

APPENDIX - F

## SAMPLE OF FORM INSTRUCTORS NOTES

(Form No. SCA-MTC-TRN-06)

COURSE TITLE:	DATE:
---------------	-------

DAY & DATE	SUBJECT	INSTRUCTOR	TIME		HOURS	SIGNATURE
			START	FINISH		
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
SATURDAY						
SUNDAY						

### SAMPLE OF EXAMINATION ANSWER SHEET

(Form No. SCA-MTC-TRN-07)

Name :

Date :

Venue :

#### INSTRUCTION

- Chose the answer by putting (X) or (O).
- Put mark (=) on anwer if you want to change the answer

1	A	B	C	D	E
2	A	B	C	D	E
3	A	B	C	D	E
4	A	B	C	D	E
5	A	B	C	D	E
6	A	B	C	D	E
7	A	B	C	D	E
8	A	B	C	D	E
9	A	B	C	D	E
10	A	B	C	D	E
11	A	B	C	D	E
12	A	B	C	D	E
13	A	B	C	D	E
14	A	B	C	D	E
15	A	B	C	D	E
16	A	B	C	D	E
17	A	B	C	D	E
18	A	B	C	D	E
19	A	B	C	D	E
20	A	B	C	D	E
21	A	B	C	D	E
22	A	B	C	D	E
23	A	B	C	D	E
24	A	B	C	D	E
25	A	B	C	D	E

26	A	B	C	D
27	A	B	C	D
28	A	B	C	D
29	A	B	C	D
30	A	B	C	D
31	A	B	C	D
32	A	B	C	D
33	A	B	C	D
34	A	B	C	D
35	A	B	C	D
36	A	B	C	D
37	A	B	C	D
38	A	B	C	D
39	A	B	C	D
40	A	B	C	D
41	A	B	C	D
42	A	B	C	D
43	A	B	C	D
44	A	B	C	D
45	A	B	C	D
46	A	B	C	D
47	A	B	C	D
48	A	B	C	D
49	A	B	C	D
50	A	B	C	D

Student Signature:	Examiner Signature:	Number of Question:
		Correct:
		False:
		Score: