

maintenance repair overhaul

Audit Report				
Report No. IAR-2020/050				
Area / Scope	GAM-145/PGU lpoh			
Date of audit 03 December 2020				

A AUDIT DETAILS					
1. Copy to		Engineering Manager			
2.	Purpose	The objective of the audit is to evaluate compliance of GAM-145 for additional aircraft maintenance capability and additional approved maintenance location.			
3.	Reference	1. GAM/CAAM/MOE			
		2. NOTICE 6501			
		3. AMO Audit Checklist			
4.	Auditor	Nur Amirah Izani binti Kamarzaman			
		2. Mohamad Amirul Hakim Bin Zulkufli			
В	AUDIT SUMMARY				

An internal audit carried out at Pangkalan Latihan Pasukan Gerakan Udara (PLPGU) Ipoh, Polis Diraja Malaysia (PDRM), Sultan Azlan Shah Airport Ipoh Perak to evaluate the compliance of GAM operation prior to submission of application to CAAM for additional maintenance capability of Cessna 172, Caravan 208, and Pilatus PC-6 and for the purpose to approve PGU lpoh facility as an approved line and base maintenance location as requested in Management of Change dated 25 July 2020 and MOC GAM/MOC/20/0054 dated 26 November 2020.

The detail information for application is as follows;

# a. Additional aircraft capability

- i. Cessna 172
- ii. Caravan 208
- iii. Pilatus PC-6

# b. Additional maintenance location (PLPGU Ipoh)

Scope of Approval	Aircraft Type		
Line Maintenance	i. Caravan 208 ii. Pilatus PC-6		
Base Maintenance	iii. Cessna 172 iv. KingAir 350		

In accordance with Statement of Work for Maintenance and Operational through Life Support Services for Royal Malaysian Police Air Operation Force (RMPAOF) King Air 350 Fleet (SOW) Para 1.4, GAM is required to provide line and limited base maintenance for RMPAOF King Air 350 at PGU Ipoh as a support base. RMPAOF also has an intention to appoint Galaxy Aerospace to be the AMO for their fleet of Cessna 172, Caravan U208 and Pilatus PC-6. The maintenance facilities will be in Subang, Selangor and Ipoh, Perak. The support shall be both Line and Base maintenance.

Audit methodology used are sampling of documents/product, interview with personnel and observation of the work area. Reference was made to the applicable CAAM Malaysia Civil Aviation Regulations and Airworthiness Notices for compliance.

The scope of this audit covers;



maintenance . repair . overhaul

Audit Report			
Report No. IAR-2020/050			
Area / Scope GAM-145/PGU lpoh			
Date of audit 03 December 2020			

- a. Facility requirement;
- b. Personnel requirement;
- c. Tool / Facility / Equipment requirement;
- d. Maintenance Data / Documents.

#### Personnel Contacted (Auditee)

No.	Name	Designation	
1	Sarawanan A/L Krishnansamy	B1.1 LAE	
2	Khairul Anuar Bin Abdul Rahman	B2 LAE	
3	Tuan Mohd Nasir Bin Saian	RMPAOF - Ketua Jurutera (LAE B1.2)	
4	Tuan Noor Rahimi Bin Zainudin	RMPAOF- Ketua Jurumekanik	

#### Reference Documents:

- a. Publication Master Listing, Issue No: GAM/P-2020-22 dated 24 November 2020
- b. Maintenance Organisation Exposition, GAM/CAAM/MOE Issue 2 Revision 03
- List of Approval Holder 2020-019 dated 17 December 2020
- d. Statement of Work for Maintenance and Operational through Life Support Services for RMPAOF King Air 350 Fleet (SOW)
- Surat Permohonan Menggunapakai Tool & Equipment, Kemudahan Hangar Dan Sokong AMO Untuk Pesawat King Air 350 Milik Polis DiRaja Malaysia (PDRM) RUJUKAN : KDN6/12/1 dan Senarai Peralatan Tool/Test Set/GSE (King Air 350)
- f. Surat Permohonan Menggunapakai Tool & Equipment, Kemudahan Hangar Dan Sokong Untuk AMO Pesawat Cessna 20, Cessna 172SP & Pilatus PC-6 Milik Polis DiRaja Malaysia (PDRM) RUJUKAN: KPN 6/12 dated 16 Dec 2020
- g. Tools and Equipment Master List dated 26 Nov 2020

### **FACILITIES**

- a. The facility is located at Pangkalan Latihan Pasukan Gerakan Udara (PLPGU) Ipoh, Polis Diraja Malaysia (PDRM), Sultan Azlan Shah Airport Ipoh Perak, Malaysia. This facility is designated for RMPAOF Pilot training which operates Cessna 172 as the training fleet. This facility is also a transit location for other RMPAOF fleet.
- b. The facility is gated and guarded and access to the facility is controlled by Polis DiRaja Malaysia (PDRM).
- c. The facility comprised of maintenance area (hangar), office accommodation, aircraft shelters, Engine Ground Run bay and storage area.
- d. The facility is permitted to be used by PGU for GAM operation. Surat KPN 6/12 dated 16 Dec 2020 is refers.
- e. The existing hangar is presently an approved CAAM maintenance facility for Cessna 172, Caravan 208, and Pilatus PC6 aircraft which maintained by Systematic Aviation Services Sdn Bhd (SAS).
- The maintenance area is 8310m/sq which can accommodate 1 x KingAir 350, 2 x Cessna 172, 2 x Caravan 208 and 2 x Pilatus PC-6 aircrafts at one time. The hangar is also equipped with automatic hangar door for protection from weather condition that can affect the maintenance activities. However, it is not equipped with grounding point. (Safety NCR)
- g. The maintenance area found adequate to accommodate the scope of work. Currently, there are two (2) unserviceable Cessna 172 found located in the hangar.



maintenance, repair, overhaul

Audit Report			
Report No. IAR-2020/050			
Area / Scope GAM-145/PGU lpoh			
Date of audit 03 December 2020			

- h. The maintenance area is intended for maintenance purposes only. 2 x 2 aircraft shelters are available for the serviceable aircraft parking purpose. The shelter is located on the righthand side of the maintenance hangar.
- Lighting at the hangar is available, and adequate for the intended maintenance. The lighting is provided by the hangar lights. 4 out of 30 hangar lights found inoperative, however it was found not significantly degrades the brightness.
- j. It was observed that hangar area was not clean and organised. (Observation 01)
- k. First aid box, eyewash, emergency shower, and fire extinguisher are available at the hangar, however, all fire extinguisher found not properly maintained as all of the fire extinguisher were due for servicing. (Safety NCR)
- I. 1 x office allocated for the operation purposes. The operation office consists of crew rest area, place to study the maintenance data, and technical record area.
- m. Office accommodation is shared between operations (Cessna 172, Caravan 208, Pilatus PC-6, and King Air 350). The maintenance office is equipped with working tables, documents shelf/cabinet and whiteboard for maintenance monitoring purposes and to plan, access, and record the maintenance work. However, temporary maintenance record location found not available. (NCR 01 raised)
- n. The office also equipped with network to access the email and maintenance data, however, the internet connection found weak/unstable. (Observation 02).
- o. 1 x maintenance rack found available for the operation, however it was not sufficient to accommodate the operation. (NCR 02 raised)
- p. Bonded store available to be used to store aircraft spares,tools,equipment,consumable for the maintenance purposes. The room is controlled by PLPGU Ipoh personnel. However, POL items found stored inside the room were not properly stored and spares found not properly controlled. GAM is to finalise on the usage of the storage room. (Observation 03)
- q. A room for storage of POL items found available at the hangar. The POL items were placed onto numbers of racks in the room. However, the room found not suitably equipped to store POL items. (Safety NCR)
- r. A room for storage of ground service equipments also found available at the hangar. The equipments are controlled by PLPGU lpoh personnel.
- s. Production waste was stored in a room named 'Stor Kimia'. The room was located outside the hangar and found properly ventilated.
- t. The emergency evacuation plan in the case of emergency found not available at the base. (Safety NCR)
- u. Apron and dispersal area found sufficient and safe for aircraft arrival and departure activities.

#### **PERSONNEL**

a. The manpower distribution is as follow;

#### i. King Air 350

GAM will deploy 2 LAEs on weekly rotation basis (1 x B1.1 and 1 x B2). Presently, GAM has 11 LAEs rated for B300 aircarft, 8 of them rated for B1.1 while the other 3 rated for B2. RMPOAF personnel stationed at PLPGU lpoh also will be utilised for maintenance activities.

No.	Name	AMEL No.	Approval No.	Category
1	Zainurin bin Mat Arip	E3813	M032	B1.1, C
2	Nor Shafina binti Mohd Din	E3713	M033	B2
3	Mohamad Saufi bin Shohaily	E4775	M034	B1.1
4	Abdul Aziz bin Ahmad Najib	E3218	M035	B1.1



•	Audit Report	
•	Report No.	IAR-2020/050
	Area / Scope	GAM-145/PGU Ipoh
	Date of audit	03 December 2020

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5	Khairul Anuar bin Abdul Rahman	E3493	M036	B2
6	Zulfakar bin Haji Alang Ahmad	E2236	M040	B1.1
7	Razduan bin Zainal	E2348	M042	B1.1
8	Mohd Abidin bin Misbah	E3873	M043	B1.1
9	Noryazid bin Abd Rahman	E2216	M044	B1.1
10	Mohd Ammar bin Sanusi	E4289	M049	B2
11	Sarawanan A/L Krishnansamy	E4425	M052	B1.1

# ii. Cessna 172

Presently, RMPOAF personnel stationed at PLPGU lpoh will be utilised for maintenance activities. Other personnel will be deployed for operation whenever required in a rotation basis.

No.	Name	Staff No.	AMEL No.	Category
1	Zulfakar Bin Alang Ahmad	8172	E2236	B1.1, B1.2
2	Mohammad Arif Bin Abd Aziz	8134	E4511	B1.2, B1.4
3	Abdul Aziz Bin Ahmad Najib	8191	E3218	B1.1, B1.2
4	Ahmad Zhafri Bin Mohd Nor	8079	E4135	B2
5	Hj. Idros Bin Abd Rahman	8183	E815	B2

# iii. Caravan 208

Presently, RMPOAF personnel stationed at PLPGU lpoh will be utilised for maintenance activities. Other personnel will be deployed for operation whenever required in a rotation basis.

No.	Name	Staff No.	AMEL No.	Category
1	Zulfakar Bin Alang Ahmad	8172	E2236	B1.1, B1.2
2	Mohd Zainurin Bin Mat Arip	8138	E3813	B1.1
3	Abdul Aziz Bin Ahmad Najib	8191	E3218	B1.1, B1.2
4	Mohd Abidin Bin Misbah	8202	E3873	B1.1
5	Hj. Idros Bin Abd Rahman	8183	E815	B2

# iv. Pilatus PC-6

Presently, RMPAOF personnel stationed at PLPGU lpoh will be utilised for maintenance activities. Other personnel will be deployed for operation whenever required in a rotation basis.

J	<u>No.                                    </u>	Name	Staff No.	AMEL No.	Category
	1	Mohd Zainurin Bin Mat Arip	8138	E3813	B1.1
	2	Mohd Abidin Bin Misbah	8202	E3873	B1.1
	3	Hj. Idros Bin Abd Rahman	8183	E815	B2

# v. PLPGU ipoh Personnel

No.	Name	AMEL No.	Category	Remarks
1	DSP Mohd Nasir Bin Saian	E3511	B1.1	SAS LAE 032 (PC-6, Cessna 208 &
				Cessna 172)



maintenance , repair , overhaul

Audit Report				
Report No.	IAR-2020/050			
Area / Scope	GAM-145/PGU Ipoh			
Date of audit	03 December 2020			

	2	SI Noor Rahimi Bin Zainuddin	T538	A1	SAS AH 018
	3	SM Zailaney bin Che Lah@Wahab	-	-	(PC-6 & Cessna 208) Jurumekanik
	4	SM Muhammad Khidri bin Harun	-	-	Jurumekanik
-	5	Sjn Azizan bin Ali			Jurumekanik
L	6	Kpl Zuladzmal Bin Zamri			Jurumekanik

 As to comply to 6/24 months requirements, all the nominated personnel is to provide the evidence of involved in 6/24 months of aircraft maintenance experience. (Observation 04)

# MATERIALS, TOOLS AND EQUIPMENT

- a. Standard tools for the intended maintenance found available and additional tools and equipments whenever required is permitted to be loaned from the RMPAOF when the need arise. Surat KPN 6/12 dated 16 Dec 2020 is refers.
- Special tools require for the operations are supported by RMPAOF. Surat KPN 6/12 dated 16 Dec 2020 is refers.
- c. Common test equipment are available in GAM AMO inventory, and shall be brought from the main base and procured when the need arise. Additional test equipment shall also be supported by RMPAOF. Surat KPN 6/12 dated 16 Dec 2020 is refers.
- d. Ground Support Equipment for the scope of work is supported by RMPAOF. Surat KPN 6/12 dated 16 Dec 2020 is refers. However, maintenance platform, engine stand, etc. for KingAir 350 found not available. The existing platform available at the base is not suitable to be used for certain KingAir 350 maintenance operation. (NCR 03 raised)
- e. As most of the tools and equipment require for the scope of work at Ipoh facility is supported by RMPAOF, the serviceability of the tools and equipment shall be controlled and monitored by GAM before use. The tools shall also be controlled to avoid FOD. (Observation 05)

# **MAINTENANCE DATA**

- a. Laptop is available for maintenance purposes. The laptop checked for publication version and found to be satisfactory. The publication is access thru 1View (Textron Aviation portal) & ETP (Pratt & Whitney Canada) which installed and controlled by the Technical Publication Personnel.
- b. Technical publication for the Cessna 172, Caravan U208 and Pilatus PC-6 will be provided by GAM CAMO. GAM AMO is to ensure each publication received and to be utilized are updated as per publication master list and/or with reference to OEM website.
- 2. Findings / observation

## Observation

- a. It was observed that hangar area was not cleaned and organise. (Observation 01)
- b. The office also equipped with network to access the email and maintenance data, however, the internet connection found weak/unstable. (Obervation 02)
- c. Bonded store available to be used to store aircraft spares,tools,equipment,consumable for the maintenance purposes. The room is controlled by PLPGU lpoh personnel. However, POL items found stored inside the room were not properly stored and spares found not properly controlled. GAM is to finalise on the usage of the storage room. (Observation 03)
- d. As to comply to 6/24 months requirements, all the nominated personnel is to provide the evidence of involved in 6/24 months of aircraft maintenance experience. (Observation 04)



Audit Report				
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As most of the tools and equipment require for the scope of work at Ipoh facility is supported by RMPOAF, the serviceability of the tools and equipment shall be controlled and monitored by GAM before use. The tools shall also be controlled to avoid FOD. (Observation 05) Minor Finding Hangar area found not equipped with grounding point. (Safety NCR) a. All fire extinguisher found not properly maintained as all of the fire extinguisher were due for servicing. (Safety NCR) Temporary maintenance record location found not available. (NCR 01 raised) C. 1 x maintenance rack available for the operation, however it found not sufficient to accommodate d. the operation. (NCR 02 rasied) A room for storage of POL items found available at the hangar. The POL items were placed onto e. numbers of racks in the room. However, the room found not suitably equipped to store POL items. (Safety NCR) The emergency evacuation plan in the case of emergency found not available at the base. (Safety f. NCR) Maintenance platform, engine stand, etc. for KingAir 350 found not available. The existing platform available at the base is not suitable to be used for certain KingAir 350 maintenance operation. (NCR 03 raised) **Major Finding** Nil finding found during the audit. 3. Conclusion Other than NCRs raised during the audit, the facility found to be in the satisfactory condition and recommended for additional line and base maintenance location once all the finding raised are appropriately justified. Prepared by 4. Date: 28 December 2020 Signature: 5. Approved by Date: Signature: 28 12 2020 OMAR BIN AHMAD Quality Assurance Manager Galaxy Aerospace (M) Sdn. Bhd (1040262-D) 6. Distribution ☐ Accountable Manager | Date: ..... □ СТОО | Date: ..... □ Others Date: .....