



A AUDIT DETAILS	
1. Copy to	Engineering Manager
2. Purpose	The objective of the audit is to carry out audit on Avionics Workshop as per CAA Malaysia requirement Notice 6501 for the purpose to approve GAM Avionics Workshop as CAAM Approved Maintenance Organisation with C5 & C6 (Electrical & Equipment) rating.
3. Reference	1. CAAM Notice 6501
	2. GAM/CAAM/MOE Issue 2 Revision 02
	3. Workshop Procedure Manual (Initial)
	4. Workshop Capability Procedure (WCP 2.1.11)
	5. Kannad ELT Workshop Worksheets
4. Auditor	1. Nur Amirah Izani Binti Kamarzaman
	2. Omar bin Ahmad
B AUDIT SUMMARY	
1.	<p>Audit of Avionics Workshop carried out to evaluate the compliance and adequacy of procedure (readiness) of the Avionics Workshop (Kannad Emergency Locator Transmitter (ELT)) operation for the purpose to approve GAM Avionics Workshop as Approved Maintenance Organisation with C6 (Equipment) rating. MOC No.: GAM/MOC/20/0049 dated 12 October 2020 raised. GAM is Kannad Approved Battery Replacement Center and is approved to perform Programming and Maintenance (Level 2) on the following products:</p> <ul style="list-style-type: none"> <li>a. 3-frequency ELTs and related accessories: Kannad 406 AF / AF-H / AP / AP-H / AF-6D / AS / Survival / ATP</li> <li>b. Compact ELTs and related accessories: Kannad 406 AF-Compact</li> <li>c. Integra ELTs and related accessories: Kannad Integra AF / AF-H / AP / AP-H and variants (ER) and (ER-N)</li> </ul> <p><b><u>Description, Scope And Model of Component Under Workshop Capability</u></b></p> <p><b>Description</b> GAM capability to perform maintenance on Kannad Emergency Locator Transmitter (ELT).</p> <p><b>Scope of Capability</b></p> <ul style="list-style-type: none"> <li>a. Maintenance for workshop capability to be carried out by GAM for ARTEX Emergency Locator Transmitter (ELT) are as follows: <ul style="list-style-type: none"> <li>i. Programming of ELT and Programming Dongle.</li> <li>ii. ELT Battery Replacement.</li> <li>iii. Component Repair / Replacement Limitation up to Level 2.</li> </ul> </li> <li>b. Repair beyond of Level 2 for failures found during visual inspection, self-test, programming or battery replacement, the ELT must be repaired by the manufacturer or by an approved repair center.</li> </ul>



### Model of Component under Workshop Capability

Model	Variant	Name	Part Number
Standard ELT's (Battery Replacement)	A	KANNAD 406 AP	S1820502-01
	B	KANNAD 406 AP	S1820502-02
	C	KANNAD 406 AF	S1821502-01
	D	KANNAD 406 AF	S1821502-02
	E	KANNAD 406 AF-H	S1822502-01
	F	KANNAD 406 AF-H	S1822502-02
	G	KANNAD 406 AS	S1823502-01
	H	KANNAD 406 AS	S1823502-02
	J	KANNAD 406 AS-TNC	S1823502-03
	K	KANNAD 121 AF	S1824502-01
	L	KANNAD 121 AF	S1824502-02
	M	KANNAD 121 AF-H	S1826502-02
	N	KANNAD 406 AF (6D)	S1821502-06
	P	KANNAD 406 SURVIVAL	S1823502-05
Q	KANNAD 406 AP-H	S1820502-04	
Compact Family ELT's (Battery Replacement)	A	KANNAD 406 AF-COMPACT	S1840501-01
	B	KANNAD 406 AF-COMPACT (ER)	S1840501-04
Integra Family ELT's (Battery Replacement)	A	AP INTEGRA (ER)	S1850501-01
	B	AP INTEGRA	S1850501-02
	C	AF INTEGRA (ER)	S1851501-01
	D	AF INTEGRA	S1851501-02
	E	AF-H INTEGRA (ER)	S1852501-01
	F	AF-H INTEGRA	S1852501-02
	G	AP-H INTEGRA (ER)	S1854501-01
	H	AP-H INTEGRA	S1854501-02
	J	AP INTEGRA (ER-N)	S1850501-03
	K	AF INTEGRA (ER-N)	S1851501-03
	L	AF-H INTEGRA (ER-N)	S1852501-03
M	AP-H INTEGRA (ER-N)	S1854501-03	



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Standard ELT's Compact Family ELT's Integra Family ELT's Programming Dongle (Programming)	-	Standard ELT's	As per listed above
	-	Compact ELT's	As per listed above
	-	Integra ELT's	As per listed above
	-	Programming Dongle	S1820514-01
	-	Programming Dongle, A320	S1820514-04
	-	Programming Dongle, A330 & A340	S1820514-05
	-	Programming Dongle Assembly	S1820514-06
	-	Programming Dongle Integra Long Range (A330-A340-A380)	S1820514-07
	-	Programming Dongle Integra/SA (A318-A319-A320-A321-A320 NEO Family)	S1820514-11
-	Attachable Programming Dongle	S1820514-12	

The audit was carried out with the reference made to the CAAM Notice 6501, and latest revision of GAM/CAAM/MOE, Workshop Procedure Manual and Workshop Capability Procedure. Audit methodology used are sampling of document, interview with personnel and observation of the work area.

The scope of this pre-audit covers;

- Facility requirement;
- Personnel requirement;
- Tool / Facility / Equipment requirement;
- Maintenance Data / Documents;
- Demonstration of First Article Inspection (Kannad ELT i.a.w the technical reference up to battery replacement and programming capability)

Demonstration of FAI of Kannad ELT was unable to be performed due to the unavailability of the article. Audit however been carried out on the workshop to the assess the availability of the tools / equipment / material, personnel competence, maintenance data and facilities to perform the maintenance.

### Personnel Contacted (Auditee)

Mr. Mior Mohd Adib  
Mr. Farqursy

Avionics Workshop Supervisor  
Avionics Workshop Technician

### Facility

- a) Avionics (Kannad ELT Workshop) is located in the same building with GAM HQ Office Building. It is a room which consist of the area to study maintenance data, complete the maintenance record, storage of tools, material, and place to perform the intended maintenance.
- b) The Avionic workshop was a shared area to perform the maintenance activities on the Avionics equipment i.e. ELT, Ni-Cad and Lead Acid Battery and found clean and organised. The room are found well equipped with air conditioning unit, working bench, racks, electrical power source and ESD working station.
- c) Personal computer and printer for assessing manual, paperwork purposes and Kannad ELT Programming process found available during the audit (GAM/IT\_ASSET/H138).

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- d) The room was found secured and can only be accessed by the authorised personnel only.
- e) Workshop space was found sufficient for the intended production activities. Working area also found convenient and suitable to carry out maintenance.
- f) Lighting found bright enough for inspection and maintenance purposes.
- g) Temperature and humidity are controlled by using the air-conditioning unit installed in the work area. The temperature is to be controlled between 15 to 35 degree Celsius as per the OEM procedure and properly recorded in the Temperature and Humidity Record form. Record reviewed and found satisfactory.
- h) Incoming, holding, and outgoing racks found adequately available and suitably labelled.
- i) Safety evacuation plan and Avionics i.e. serviceable fire extinguisher and first aid kit found available at the work area. Fire extinguisher due for servicing on 18 Dec 2020.
- j) ESD working area was found available for battery replacement process. The area was equipped with ESD mat and wrist strap which grounded to the approved grounding source.

**Maintenance Data / Document**

- a) The Publication Master List Issue GAM/WS/P-01-2020 dated 22 June 2020 found available for viewing.
- b) Technical references used to carried out maintenance check and found updated and from the approved source. The manual was assessed in the Google Drive (Workshop – Maintenance Data Folder) controlled by the Technical Publication Personnel.
- c) The references were obtained thru Kannad ELT website which was subscribed by GAM and any updates will be notified by the OEM thru email.
- d) The applicable reference manuals are as follows;

Model	Manuals
Standard ELT's	Kannad Emergency Locator Transmitter (ELT, Kannad) Level 2 Component Maintenance Manual with Illustrated Parts List 25-63-05 of the latest revision.
Compact Family ELT's	Kannad Emergency Locator Transmitter (ELT, Compact Family) Level 2 Component Maintenance Manual with Illustrated Parts List 25-63-07 of the latest revision.
Integra Family ELT's	Kannad Emergency Locator Transmitter (ELT, Integra Family) Level 2 Component Maintenance Manual with Illustrated Parts List 25-63-08 of the latest revision.
Programming all ELT and Programming Dongle	Kannad Aviation Training Program – ELT Commissioning Document No 100060 of the latest revision.

- e) Service Letters / Service Bulletins are available for download at <https://www.rolia.com/support/kannad>.

**Tools / Equipment / Material**

- a) Tools / equipment / material checked for availability and serviceability in accordance with the relevant maintenance data for the intended scope of maintenance.
- b) List of Tools / equipment found for tool control. The tools location and calibration due are also identified in the list for ease of monitoring.
- c) The finding on tools for the intended maintenance is as follows;



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DESCRIPTION	USAGE		QA REMARK
	PROGRAMMING	BATTERY REPLACEMENT	
Programming Equipment for KANNAD ELTs (PR600)	X	X	Available – ST436
COSPAS-SARSAT 121.5Mhz and 406Mhz Decoder (Beacon Tester BT200)	X	X	Available - CTE/136 (Due:25 Aug 2021)
Laptop OR PC with minimum of Windows XP minimum and Internet connection.	X	X	Available – GAM/IT_ASSET/H138
Digital Multimeter (Capable to measure Voltage and Milliampere)		X	Available – CTE/107 (Due: 25 Aug 2021)
Torque Screwdriver		X	Available – CTE/11 (Due:21 Aug 2021)
Standard Mechanic's Tools		X	Available – G4358

### Personnel

- Total of 02 Avionics workshop personnel found available for the Operation, 01 Supervisor and 01 technician. For the time being, the Supervisor is nominated to hold the certifier role.
- Nominated certifier was previously an approved certifier at previous Part 145 organisation holding authorisation on Avionics component (Battery and ELT). Previous authorisation certificate issued by Mycopter Aviation Services reviewed and found candidate current with the life aircraft for the last 2 years (issued on 20 May 2019, due on 19 May 2021).
- The nominated certifier namely Mr. Mior Mohd Adib had joined GAM as the Avionics Workshop Supervisor on July 2019. As to comply to 6/24 requirement, evidence of maintenance activities involved for the last 6 months is provided by the candidates and found current with the component.

### 2. Findings / observation

#### Observation

Nil

#### Minor Finding

Nil

#### Major Finding

Nil

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3. Conclusion

Nil findings found during the audit. Avionics (Kannad ELT) operation has shown compliance for the Part 145 operation and recommended for workshop approval.

4. Prepared by

Signature:

Date: 12 November 2020

  
 NUR AMIRAH IZANI KAMARZAMAN  
 Quality Assurance Inspector  
 Galaxy Aerospace (M) Sdn. Bhd  
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5. Approved by

Signature:

Date:

  
 OMAR BIN AHMAD  
 Quality Assurance Manager  
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13 Nov 2020

6. Distribution

- Managing Director | Date: .....
- Others | Date: .....