


CUSTOMER: GADING AIR SDN. BHD.	AIRCRAFT REG*	9M-JSR	CSN*	-	WORKSHOP WORKSHEET NO: WW-W/21-183 WORK ORDER REF:GAM-WS-WO-21-183 SHEET: 1 OF 5
BASE/FACILITY: GAM SUBANG, AVIONICS ROOM	AIRCRAFT S/N*	6583	CSO*	-	
	TSN*	-			
	TSO*	-			
DATE: 10 NOVEMBER 2021 DAT. T: 10 NOVEMBER 2021		*IF APPLICABLE			

Reason for raising: Kannad ELT/Dongle Programming in accordance with Kannad ELT Programming Training, Document Number DOC21053A, Edition October 2021.	Raised by and date: Mior Mohd Adib 10 November 2021	Other requirements/information:
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Item	Description	Technician	* Approval Holder	Date
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Component detail:					NOTED		10/11/21
Description	Model	P/N	S/N	CSN			
ELT	KANNAD 406 AF-H	S1822502-02	TM0000224627	458764			

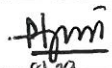

NOTE:

- Prior to starting the programming – review ELT service history or logbook/ log card.
- Ensure the latest and up to date Kannad Training Programming-ELT Commissioning Manual is referred. Always follow recommendation as per Manual and safety precaution to be observed at all times.
- Be familiar with Kannad Training Programming-ELT Commissioning Manual. Always select the required parameters and selection of the programmer within its operating limitation.

1.0 SETTING UP PR600 PROGRAMMING EQUIPMENT

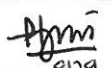

NOTE:

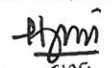

- Always connect the PR600 to the computer before launching e-Prog.

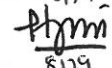

1.1	Connect PR600 to computer USB port. Remarks: SATISFACTORY			10/11/2021
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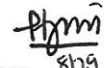

NOTE:

- Need to be connected to internet the first-time launch e-Prog.
- Need to be connected to internet when creating a coding sheet in Serial number protocol for an Integra or a Dongle for Integra.
- All other operations can be performed online. However, it is recommended to work online to avoid the "Connection to webservice failed" error message.

1.2	Launch Kannad e-Prog Remarks: SATISFACTORY			10/11/2021
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1.3	Enter ManageYourBeacon Login Identification and Password. Remarks SATISFACTORY			10/11/2021
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1.4	Open the menu and select Aviation -ELT-. Remarks: SATISFACTORY			10/11/2021
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1.5	Under Coding Sheet folder select Creation. Remarks: SATISFACTORY			10/11/2021
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2.0 CODING SHEET CREATION

NOTE:

- If several country codes exist for the same country, refer to spocs.xls to determine which to select.

2.1	Select the country code of the aircraft. Country code selected: 533 MALAYSIA Remarks: SATISFACTORY			10/11/2021
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*TICK WHERE APPLICABLE

PARTS LABELED & RETURNED	D.D. RAISED	DUPLICATE INSP.	GROUND RUN	FLIGHT TEST	TORQUE CHK.	ADDITIONAL WORKSHEET	MONITORED DEFECT	PLANNING FORCAST	DIARY UPDATE	STATUS UPDATE	D.D. STATUS	AIRCRAFT LOG BOOK	ENGINE LOG BOOK	PROPELLER LOG BOOK	LOG CARD	OEM/COMP LOG CARD	MOD RECORD BOOK
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CUSTOMER: GADING AIR SDN. BHD.	AIRCRAFT REG*	9M-JSR	CSN*	-	WORKSHOP WORKSHEET NO: WW-W/21-183 WORK ORDER REF: GAM-WS-WO-21-183 SHEET: 2 OF 5
BASE/FACILITY: GAM SUBANG, AVIONICS ROOM	AIRCRAFT S/N*	6583	CSO*	-	
	TSN*	-			
	TSO*	-			
DATF 10 NOVEMBER 2021 DATL T: 10 NOVEMBER 2021	*IF APPLICABLE				

Reason for raising: Kannad ELT/Dongle Programming in accordance with Kannad ELT Programming Training, Document Number DOC21053A, Edition October 2021.	Raised by and date: Mior Mohd Adib 10 November 2021	Other requirements/information:
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	<p>NOTE:</p> <ul style="list-style-type: none"> To program a dongle for Integra, make sure to select Dongle for Integra, even if it's a dongle assembly. It will be programmed in long message format. Dongle IF GPS and Attachable Dongle for INTEGRA ER-N are programmed the same way as a Dongle for Integra. 			
2.2	<p>Select the beacon model and version.</p> <p>Beacon Model: KANNAD 406 Version: AF-H</p> <p>Remarks: SATISFACTORY</p>	Hymn 8129		10/11/2021
	<p>NOTE:</p> <ul style="list-style-type: none"> The coding protocol defines the type of information encoded in the "Identification" field of the digital message. An installed ELT must be coded with one of these four protocols: Protocols which identify the aircraft. <ul style="list-style-type: none"> T/N: The aircraft tail number/registration. Example: G-ABCD ICAO: 24bit address in hexadecimal format. Example: C0AB1F Protocols which identify the ELT itself. <ul style="list-style-type: none"> S/N: ELT Serial Number (CSN). The CSN written on the ELT. Example: 276457 AOD: Three letter aircraft operator designator + serial number from 0001 to 4096 issued by airline. Example: UAL999 1 special protocol for ELTs not on board "Maintenance Code". COSPAS-SARSAT has defined a protocol to identify an ELT as "ELT not on board" which is used as default factory coding for Kannad ELTs. 			
2.3	<p>Select the coding protocol and enter the identifier according to the protocol. Number the ELT starting from 0.</p> <p>Protocol selected: T/N: Aircraft Tail Number Identification Number: 9M-JSR</p> <p>Remarks: SATISFACTORY</p>	Hymn 8129		10/11/2021
2.4	<p>Only Survival ELTs must be set as Manual for the Activation Mode. Homing must remain checked.</p> <p>Remarks: NOT APPLICABLE. PROGRAMMING PERFORM ON AUTOMATIC ELT.</p>	Hymn 8129		10/11/2021
2.5	<p>Filled up the coding sheet additional data.</p> <p>Remarks: SATISFACTORY</p>	Hymn 8129		10/11/2021
	<p>NOTE:</p> <ul style="list-style-type: none"> This additional data is filled for information only. It will not be stored in the ELT/Dongle and it will not affect the coding of the ELT/Dongle. 			
2.6	<p>Type a coding sheet name (for example the tail number or the serial number) then click "Save".</p> <p>Remarks: SATISFACTORY</p>	Hymn 8129		10/11/2021
3.0	ELT PROGRAMMING			
3.1	<p>Connect an antenna or a 50 Ohms dummy load to the ELT.</p> <p>Remarks: SATISFACTORY</p>	Hymn 8129		10/11/2021
3.2	<p>Connect the PR600 to the ELT</p> <p>Remarks: SATISFACTORY</p>	Hymn 8129		10/11/2021
3.3	<p>Select the Coding Sheet that had been created.</p> <p>Remarks: SATISFACTORY</p>	Hymn 8129		10/11/2021

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PARTS LABELED & RETURNED	D.D. RAISED	DUPLICATE INSP.	GROUND RUN	FLIGHT TEST	TORQUE CHK.	ADDITIONAL WORKSHEET	MONITORED DEFECT	PLANNING FORECAST	DIARY UPDATE	STATUS UPDATE	D.D. STATUS	AIRCRAFT LOG BOOK	ENGINE LOG BOOK	PROPELLER LOG BOOK	LOG CARD	OEM/COMP LOG CARD	MOD RECORD BOOK
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BASE/FACILITY: GAM SUBANG, AVIONICS ROOM	AIRCRAFT S/N*	6583	CSO*	-	
	TSN*	-			
	TSO*	-			
DATF : 10 NOVEMBER 2021 DAT. T: 10 NOVEMBER 2021	*IF APPLICABLE				SHEET: 3 OF 5

Reason for raising: Kannad ELT/Dongle Programming in accordance with Kannad ELT Programming Training, Document Number DOC21053A, Edition October 2021.	Raised by and date: Mior Mohd Adib 10 November 2021	Other requirements/information:
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Item	Description	Technician	* Approval Holder	Date
3.4	Select "Beacon Programming" and click "OK" Remarks: SATISFACTORY	<i>Hym</i> 8129		10/11/2021
3.5	Switch the ELT to "ARM" Remarks: SATISFACTORY	<i>Hym</i> 8129		10/11/2021
3.6	Wait for the "Programming Finished" message then switch the ELT to "OFF". Remarks SATISFACTORY	<i>Hym</i> 8129		10/11/2021
3.7	Record the ELT 15 HEX ID ELT 15 HEX ID: <u>C2A640E763AD2A1</u> Remarks: SATISFACTORY	<i>Hym</i> 8129		10/11/2021
4.0	DONGLE PROGRAMMING			
	NOTE: • Make sure the PR600 was connected to the computer before the start of e-Prog. If not quit and restart e-Prog.			
4.1	Connect the Dongle to the PR600. Remarks: NOT APPLICABLE. PERFORM PROGRAMMING ON ELT	<i>Hym</i> 8129		10/11/2021
4.2	Select the Coding Sheet that had been created. Remarks: NOT APPLICABLE. PERFORM PROGRAMMING ON ELT	<i>Hym</i> 8129		10/11/2021
4.3	Select "Dongle Programming" and click "OK". Remarks: NOT APPLICABLE. PERFORM PROGRAMMING ON ELT	<i>Hym</i> 8129		10/11/2021
4.4	Wait for the "Programming Finished" message. Remarks: NOT APPLICABLE. PERFORM PROGRAMMING ON ELT	<i>Hym</i> 8129		10/11/2021
4.5	Record the Dongle 15 HEX ID Dongle 15 HEX ID: _____ Remarks: NOT APPLICABLE. PERFORM PROGRAMMING ON ELT	<i>Hym</i> 8129		10/11/2021
5.0	SYNCHRONISATION			
	NOTE: • Once the programming is complete, the Synchronisation status shows the number of beacons changed since last synchronisation.			
5.1	Click Synchronisation to update the ManageYourBeacon database. Remarks: SATISFACTORY	<i>Hym</i> 8129		10/11/2021
5.2	After the synchronisation is successful, you must have "0" beacon changed since last synchronisation. Remarks: SATISFACTORY	<i>Hym</i> 8129		10/11/2021
6.0	FINDING AND REPLACEMENT OF FAULTY COMPONENT			
6.1	NIL. Remarks: SATISFACTORY	<i>Hym</i> 8129		10/11/2021

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CUSTOMER: GADING AIR SDN. BHD.	AIRCRAFT REG*	9M-JSR	CSN*	-	WORKSHOP WORKSHEET NO: WW-W/21-183
BASE/FACILITY: GAM SUBANG, AVIONICS ROOM	AIRCRAFT S/N*	6583	CSO*	-	WORK ORDER REF:GAM-WS-WO-21-183
	TSN*	-			
	TSO*	-			
DATF 10 NOVEMBER 2021 DAT: T: 10 NOVEMBER 2021	*IF APPLICABLE				SHEET: 4 OF 5

Reason for raising: Kannad ELT/Dongle Programming in accordance with Kannad ELT Programming Training, Document Number DOC21053A, Edition October 2021.	Raised by and date: Mior Mohd Adib 10 November 2021	Other requirements/information:
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Item	Description	Technician	* Approval Holder	Date
7.0	WORKSHOP PERSONNEL TO COMPLETE AND PREPARATION FOR ELT/DONGLE RETURN TO SERVICE			
7.1	After successfully programmed and verified the ELT/Dongle, replace the previous details on the ELT/Dongle label with the new one. Remarks: SATISFACTORY	<i>Hjmm</i> 8129		10/11/2021
	NOTE: • If a dongle is used, on the ELT label just write "On Dongle" in the Identification Field.			
7.2	If perform programming on ELT. Record the ELT battery Expiry Date. Battery Expiry Date: MAY 2028 Remarks: SATISFACTORY	<i>Hjmm</i> 8129		10/11/2021
7.3	Print and attached the programming coding sheet to the Workshop Worksheet. Remarks: SATISFACTORY	<i>Hjmm</i> 8129		10/11/2021
7.4	Complete Workshop Worksheet and logbook/ log card as applicable. Remarks: SATISFACTORY	<i>Hjmm</i> 8129		10/11/2021
7.5	Issue Serviceable Label if required. Remarks: SATISFACTORY	<i>Hjmm</i> 8129		10/11/2021
7.6	Complete the Workshop Process Report if requested. Remarks: NOT APPLICABLE FOR WORKSHOP SCOPE GROUP a.I	<i>Hjmm</i> 8129		10/11/2021
7.7	Issue CAAM Form 1 if required. Remarks: NOT APPLICABLE FOR WORKSHOP SCOPE GROUP a.I	<i>Hjmm</i> 8129		10/11/2021

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Kannad e-Prog V1.3.5, ELT/DONGLE Coding Sheet 10/11/2021 15:01
<Programmer GALAXY AEROSPACE>

OROLIA S.A.S
Z.I DES CINQ CHEMINS
56520 GUIDEL
FRANCE

FAX : +33 2 97 65 06 42
TEL.: +33 2 97 02 49 00
E-MAIL: manageyourbeacon@kannad.com

Format Flag:Short	25	0
Protocol Flag:.....User	26	1
Country code:.....533 MALAYSIA	27-36	1000010101
Protocol Code:.....User Aviation	37-39	001
Aircraft Registration Marking: 9M-JSR	40-81	100100000011100111...
ELT Number:.....0	82-83	00
Aux. Radio Device:.....121.5 MHZ	84-85	01
Emergency Code Flag:.....National Use	107	0
Activation code:.....Automatic	108	1

Full Message:FF FE 2F 61 53 20 73 B1 D6 95 0F 57 B8 90
15 Hex ID:C2A640E763AD2A1
15 Hex ID Checksum:42AC7

Identification protocol:T/N
Identification number: 9M-JSR

Carrier type:Aircraft
Registration:9M-JSR
Carrier's name:EC155
Description:
Model:ELT KANNAD 406
Version:AF-H

Cospas Sarsat Number (CSN):458764
CSN number date :17/06/2021
Last programming date:10/11/2021

ELT Test Report

C2A640E763AD2A1

Organization: Galaxy

Tested by: Mior

Date: 2021-11-10 15:05:10

Tester model/serial/file name: BT200-2100Y/10518/9M-JSR-1

Tester cal due date: 2022-08-25

Tester temperature: 25.06°C

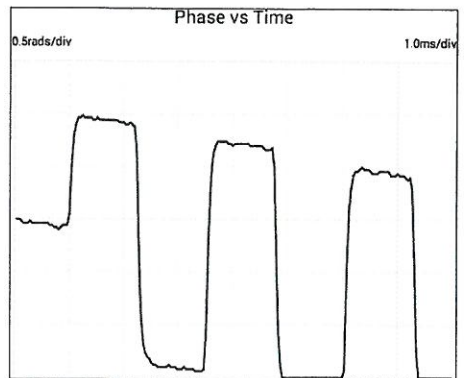
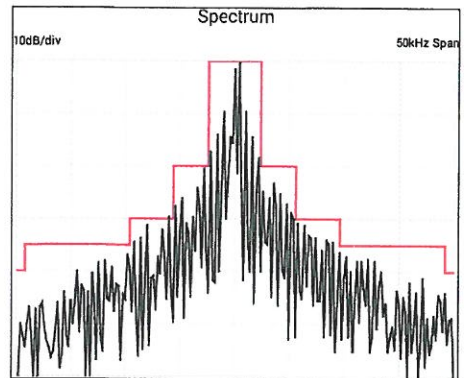
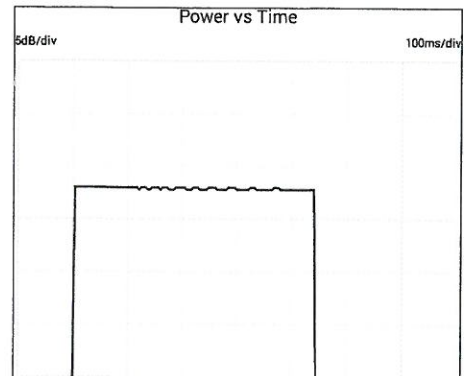
✓ Pass

Fail

Initials: _____

15 Hex ID: C2A640E763AD2A1
Aviation ELT user protocol
15 Hex checksum: 42AC7
Country code: Malaysia (533)
Aircraft reg: 9M-JSR
ELT number: 0
Auxiliary radio: 121.5 MHz
Nat'l emerg code: 0
Activation type: Automatic
Full hex: FFFED061532073B1D6950F57B890
Burst mode: Self test mode (short)

Parameter	Measured Data
406MHz Measurements	
Frequency:	406.025687 MHz
Power:	34.7 dBm
Power Rise Time:	0.25 ms
Pre-Burst Level:	-23.3 dBm
Bit Rate:	400.4 bps
Unmodulated CW:	160.1 ms
Transmission Time:	440.5 ms
Modulation Rise Time:	524.7 µs
Modulation Fall Time:	188.1 µs
Positive Phase:	0.93 rad
Negative Phase:	-1.41 rad
Modulation Symmetry:	1.2 %
121/243MHz Measurements	
121 Frequency:	121.500378 MHz
121 Peak Power:	22.4 dBm
243 Frequency:	243.000922 MHz
243 Peak Power:	21.6 dBm





WORK ORDER

Address: Suite 11-14, Helicopter Centre, Malaysia International Aerospace Centre, Petaling Sultan Abdul Aziz Shah Airport, 47200 Subang, Selangor, Malaysia

Work Order Number: GAM-WS-WO-21-183

Attention: Mr. Mior Mohd Adib Mior Salehuddin
Avionics Workshop Supervisor
mior@galaxyaerospace.com

Date Issued: 10-11-2021

Scope Group: a.l

Description:

Item	Description/Task/Inspection	Reference	Man Hours
1	KANNAD 406AF-H ELT PROGRAMMING	KANNAD ELT PROGRAMMING TRAINING DOC NO: DOC21053A REV. A. OCTOBER, 2021	5 HOURS

A/C REG: 9M-JSR
A/C SN: 6583
ELT PN: S1822502-02
ELT SN: TM0000224627

CLIENT NAME: GADING AIR SDN. BHD.

Remark/Notes:

- State this Work Order reference on your Workshop Worksheet. Should there is any additional job/defect (unless specified in the work package) the Workshop Supervisor must notify Commercial section to notify customer prior to proceed with rectification.
- Work must be carried out in accordance with approved data and perform by qualified personnel, approved LAE / workshop approval holder from the maintenance organization.
- Parts used must be written in Workshop Worksheet and accompanied with CAAM FORM 1, Serviceable Label or equivalent document.
- In-house repair order limited to aircraft contracted to GAM AMO 145 which its equipment is sent to workshop for maintenance and the reinstalled on the same aircraft.
- For in-house repair order, no CAAM Form 1 and Workshop Worksheet required to be issued, issuance of Serviceable Label is sufficient.
- The maintenance organization shall be responsible for any damages made on the aircraft/ components during maintenance.
- Upon completion of task, component shall be sent to Store.
- If applicable Original copy of CAAM FORM 1 shall be submitted to Store, then to Logistic Department.
- Workshop Worksheet (Original/Copy), DCAM Form 1 (Copy) and Workshop Process Report (Original) shall be submitted to Technical Record for archive.

From

MOR MOHD ADIB MIOR SALEHUDDIN

.....
Production Planner

Kannad e-Prog V1.3.5, ELT/DONGLE Coding Sheet 10/11/2021 15:01

<Programmer GALAXY AEROSPACE>

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FAX : +33 2 97 65 06 42
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E-MAIL: manageyourbeacon@kannad.com

Format Flag:Short	25	0
Protocol Flag:.....User	26	1
Country code:.....533 MALAYSIA	27-36	1000010101
Protocol Code:.....User Aviation	37-39	001
Aircraft Registration Marking: 9M-JSR	40-81	100100000011100111...
ELT Number:.....0	82-83	00
Aux. Radio Device:.....121.5 MHz	84-85	01
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Full Message:FF FE 2F 61 53 20 73 B1 D6 95 0F 57 B8 90
15 Hex ID:C2A640E763AD2A1
15 Hex ID Checksum:42AC7

Identification protocol:T/N
Identification number: 9M-JSR

Carrier type:Aircraft
Registration:9M-JSR
Carrier's name:EC155
Description:
Model:ELT KANNAD 406
Version:AF-H

Cospas Sarsat Number (CSN):458764
CSN number date :17/06/2021
Last programming date:10/11/2021

ELT Test Report

C2A640E763AD2A1

Organization: Galaxy
Tested by: Mior
Date: 2021-11-10 15:05:10
Tester model/serial/file name: BT200-2100Y/10518/9M-JSR-1
Tester cal due date: 2022-08-25
Tester temperature: 25.06°C

✓ Pass

Fail

Initials: _____

15 Hex ID: C2A640E763AD2A1
 Aviation ELT user protocol
 15 Hex checksum: 42AC7
 Country code: Malaysia (533)
 Aircraft reg: 9M-JSR
 ELT number: 0
 Auxiliary radio: 121.5 MHz
 Nat'l emerg code: 0
 Activation type: Automatic
 Full hex: FFFED061532073B1D6950F57B890
 Burst mode: Self test mode (short)

Parameter	Measured Data
406MHz Measurements	
Frequency:	406.025687 MHz
Power:	34.7 dBm
Power Rise Time:	0.25 ms
Pre-Burst Level:	-23.3 dBm
Bit Rate:	400.4 bps
Unmodulated CW:	160.1 ms
Transmission Time:	440.5 ms
Modulation Rise Time:	524.7 μs
Modulation Fall Time:	188.1 μs
Positive Phase:	0.93 rad
Negative Phase:	-1.41 rad
Modulation Symmetry:	1.2 %
121/243MHz Measurements	
121 Frequency:	121.500378 MHz
121 Peak Power:	22.4 dBm
243 Frequency:	243.000922 MHz
243 Peak Power:	21.6 dBm

