



**Atlantic Flight Training Academy**

IE-314 FSTD RE-EVALUATION  
4th/5th April 2024

# AGENDA - Schedule of Events - 4th April 2024



IAA TEAM:

TI: TECHNICAL INSPECTOR; STANLEY STERRIT, ERKIN SEYYAR  
FI: FLIGHT INSPECTOR; CAPT. JOHN MURRAY

TIME	DESCRIPTION
4th April	
14:00 - 14:15	Security and Introduction – Review of Agenda (TI/FSTDO representatives)
14:15 – 14:30	FSTD Installation (TI)
14:30 – 16:00	MQTG and quarterly QTG re-run review
16:00 – 17:00	Manual QTG re-runs (TI/FSTD IOS Operator)
17:00	CLOSE
FSTD REQUIRED	

# AGENDA - Schedule of Events - 5th April 2024



IAA TEAM:

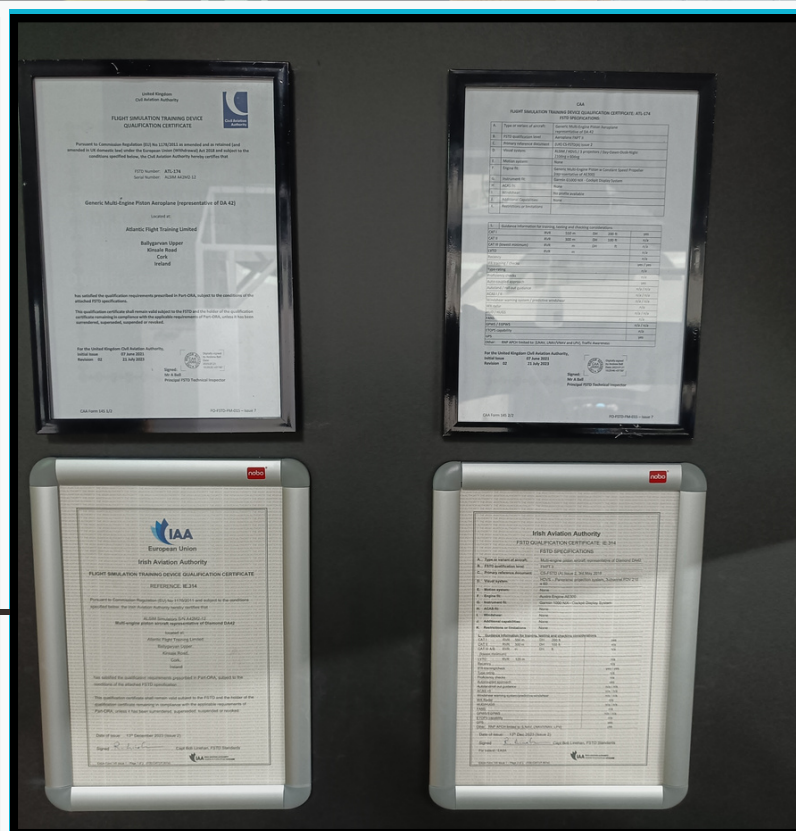
TI: TECHNICAL INSPECTOR; STANLEY STERRIT, ERKIN SEYYAR

FI: FLIGHT INSPECTOR; CAPT. JOHN MURRAY

TIME	DESCRIPTION
5th April	
09:00 – 09:15	Security and Introduction – Review of Agenda (All)
09:15 – 10:15	Dossier Presentation –(All) Subjective Flyout – Introduction by FI (All)
10:15 – 10:40	FSTD Familiarisation (FI/FSTDO IOS Operator/FSTDO Pilot)
10:45 – 13:00	Function and Subjective Fly-out with RVR/VGS (FI/TI/FSTDO IOS Operator/FSTDO Pilot)
13:00 - 13:45	Lunch
13:45 – 14:15	Function and Subjective Fly-out with IOS/malfunctions (FI/FSTDO IOS Operator/FSTDO pilot)
14:15 – 15:30	Manual QTG re-runs (TI/FI/FSTDO IOS Operator)
15:30 – 16:00	Evaluation of QTGs re-runs during evaluation (TI) Preparation of evaluation report (F
16:00 – 16:45	Evaluation Report preparation. IAA Team review and completion of evaluation report (FI/TI)
16:45 – 17:00	Debrief and issue of report (All)
17:00	Close
FSTD REQUIRED	



# SAFETY BRIEF





# INTRODUCTION

Type of FSTD and qualification level requested

Aircraft Model A42M2

Serial Number A42M2-12

Qualification level: FNPT-II

Aircraft Generic Multi Engine Piston

Aeroplane close to DA42-VI

Additional Capabilities: None





# INTRODUCTION

**DATE OF RE-EVALUATION: 22ND APRIL 2022**

**PEOPLE INVOLVED:**

- KYLE JOHNSTON – COMPLIANCE MONITORING  
MANAGER  
E-MAIL: KYLE.JOHNSTON@AFTA.IE MOBILE: 087 288  
7155
- MICHAEL SMITH – FSTD MAINTENANCE MANAGER  
E-MAIL: MICHAEL.SMITH@AFTA.IE MOBILE: 085  
2621642
- DAN LYNCH – PILOT  
E-MAIL: DAN.LYNCH@AFTA.IE MOBILE: 086 3679626

**FSTD OPERATOR DETAILS:**

ATLANTIC FLIGHT TRAINING LTD  
UPPER BALLYGARVAN,  
KINSALEROAD,  
CORK  
PHONE: 021 4888 737  
E-MAIL: INFO@AFTA.IE



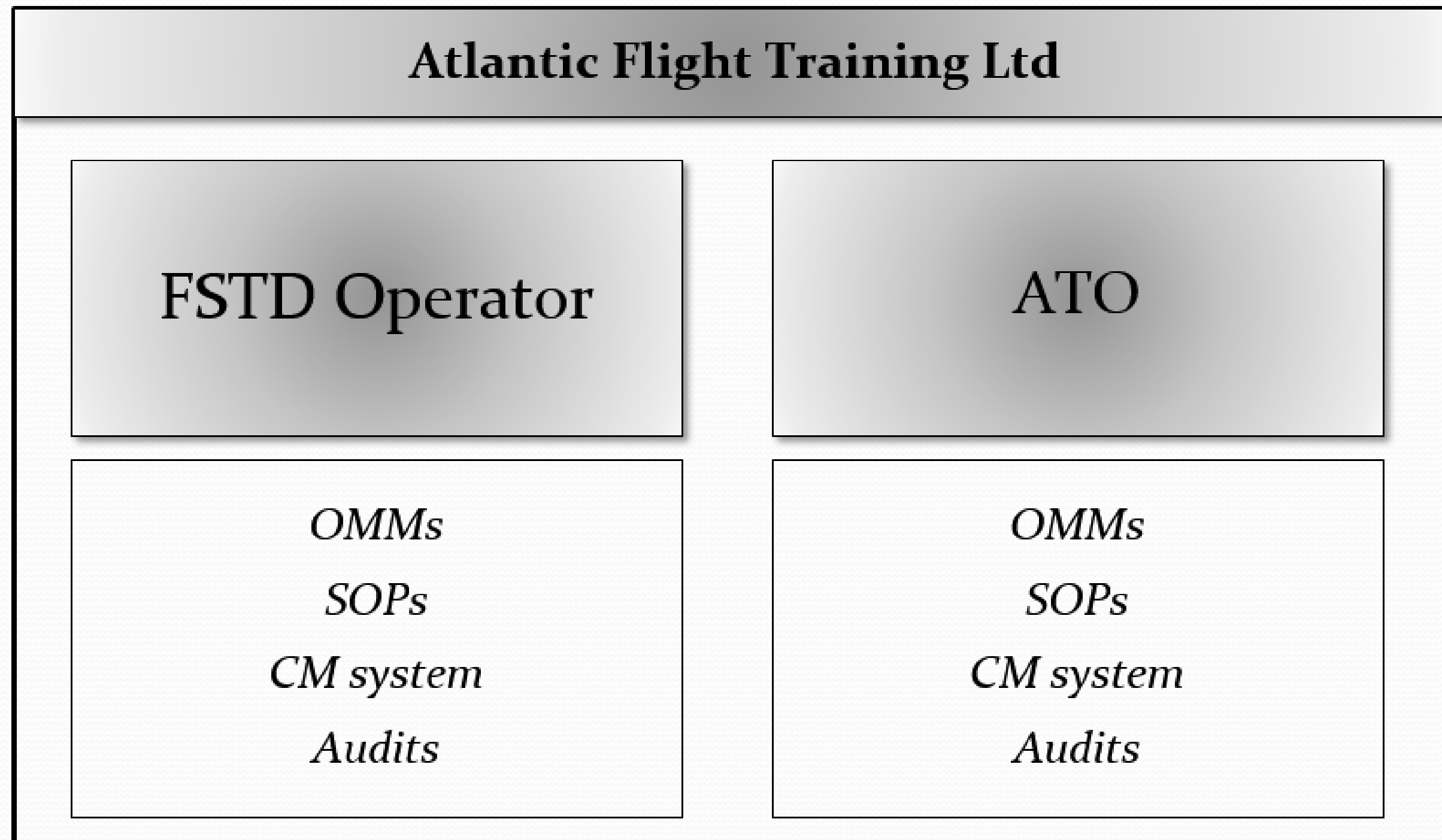
**FSTD LOCATION:**

BALLYGARVAN UPPER  
KINSALE ROAD  
CO. CORK  
IRELAND  
T12 CX7H  
+353 21 4888737



# FSTD Operator details

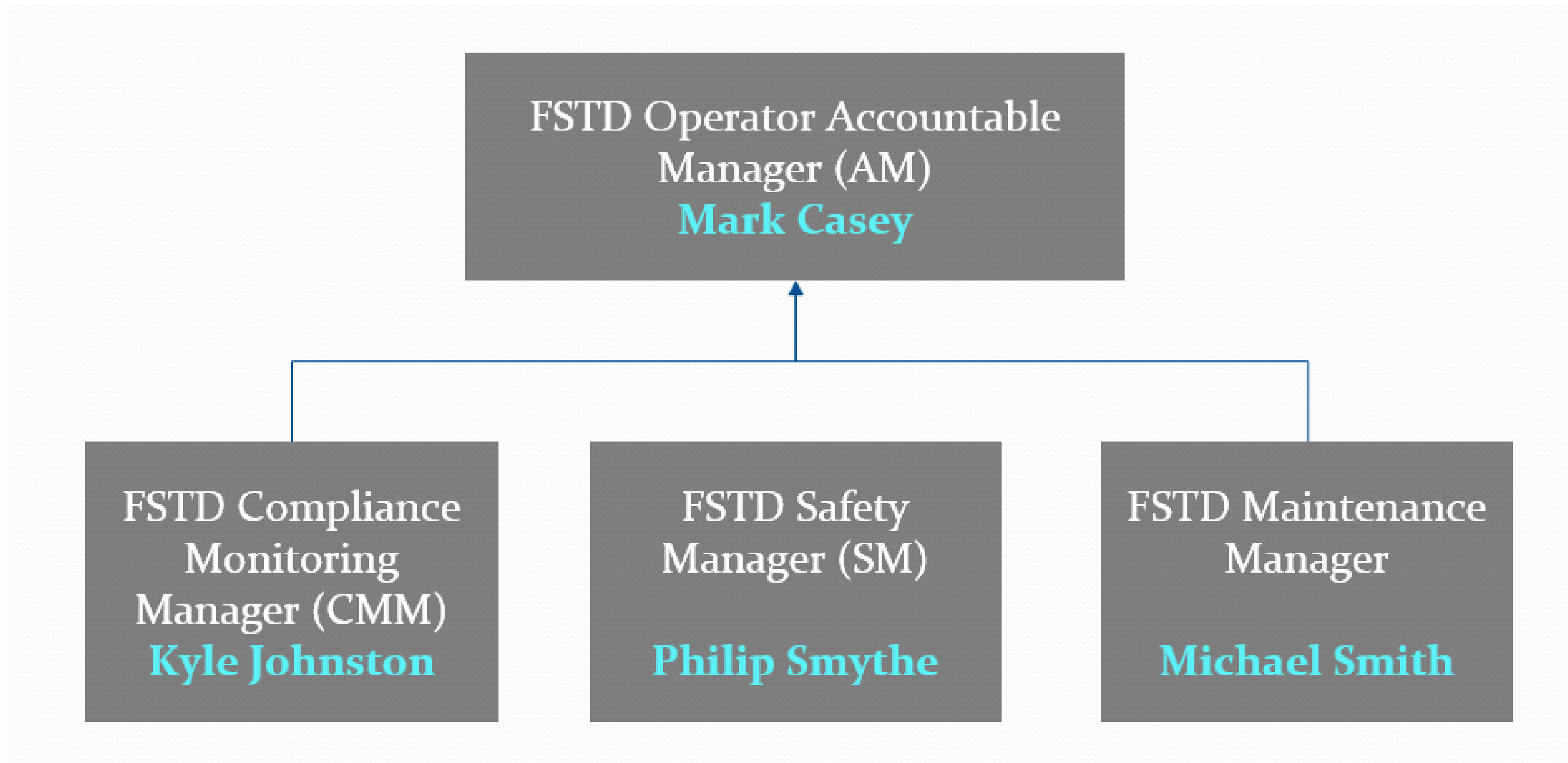
- Organisation Chart for FSTD Operator





# FSTD Operator details

## ● Organisation Chart for FSTD Operator





# FSTD identification and details



# FSTD Specifications (from FSTD Operator's Statement and Configuration Control)

GENERAL	
manufacturer	<u>Alsim</u> Simulators
model	A42M2
serial number	A42M2-12
type or variant of aircraft	DA42-VI
visual system	RVR (5760 x 1200 on the panoramic visual system screen)
motion system	N/A
engine fit	Austro Engine GmbH E4-C
instrument fit	PFD/MFD – DA42 Cockpit Display system
computer systems	Dell Optiplex 6450 – Debian (Linux Variant)
date of manufacture	Nov 2017
DATA SOURCES	
Maximum Landing Mass 1999 kg	MÄM 42-938 - DA42-NG-VI-Aircraft-Flight-Manual.pdf
Maximum Take-Off Weight 1999 kg and Maximum Zero Fuel Mass 1835 kg	MÄM 42-678 - DA42-NG-VI-Aircraft-Flight-Manual.pdf
Engine Software VC33_2_05_19*	MÄM 42-938 - DA42-NG-VI-Aircraft-Flight-Manual.pdf
Garmin Hard- and Software ' Upgrade I (Garmin G1000 Nxi)	MÄM 42-97 8- DA42-NG-VI-Aircraft-Flight-Manual.pdf



# FSTD Specifications (from FSTD Operator's Statement and Configuration Control)

<b>GENERAL</b>	
Ice Protection System	OÄM 42-053
Oxygen System	A42M2
Auxiliary Fuel Tanks	A42M2-12
Sun Visors	ÄM 42-101 OR OÄM 42-14
Ice Protection System	OÄM 42-160
Ice Protection System with TKS Tank in Rear Fuselage	OÄM 42-160 AND OÄM 42-203
Garmin G1000, SBAS Operation	OÄM 42-179
Removal of Variable Elevator Stop	OÄM 42-199
Emergency Axe	OÄM 42-205
Short Baggage Extension	OÄM 42-207
Electronic Stability and Protection	OÄM 42-209
Mission Alternator	OÄM 42-218
Removal of Unfeathering Accumulator	OÄM 42-224
Diesel Operation	OÄM 42-251
Front Seats with Adjustable' Backrest - Hydrolok	OÄM 42-259
Maximum Take-Off Weight 2001 kg / 4411 lb	OÄM 42-260
Mid Continent MD302 Standby' Attitude Module	OÄM 42-270
Garmin GWX 70 Weather Radar	OÄM 42-273
Gear Warning Mute Function	OÄM 42-288
Emergency Egress Hammer	OÄM 42-304

# FSTD Specifications (from FSTD Operator's Statement and Configuration Control)

SYSTEMS	
<u>nav / comm systems</u>	Garmin 1000 NXI
autopilot / flight director	Garmin 1000 NXI
TCAS	TCAS7 simulated
windshear	N/A
GPWS	N/A
WX-Radar	N/A
Autocoupled approach	N/A
GPS	Yes
audio	Panasonic digital multi-channel



The aircraft systems simulated in the FSTD are programmed according to ALSIM systems proprietary data.

All systems are simulated to such an extent that all normal and non-normal procedures and training can be performed using standard procedures.





## ALSIM FLIGHT TRAINING SOLUTIONS

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Website: [www.alsim.com](http://www.alsim.com)





## Status of items raised during the last evaluation and date of closure

The following pages will be an overall summery of the open/closed items from both internal and external audits and usage.

Full details can be found on the link below.

[IAA STATUS OVERVIEW](#)

# Open Issues

## Open Issues

- DECLARED (Request Closure) Item 6.2.B.5 from 2019 report remains open: It was not evident how the software change history of the FSTD can be determined through the IOS functionality.
  - Ticket thread attached to ticket regarding ALSIM stating that there are no updates through the database tool that will affect airport graphics, signage etc. This must be on-demand by the operator.

All updates will not affect QTG in any way without a new version load being installed.



# Declared items

- Propeller anti ice pads are not simulated
- No hold short points on generic airports. (Not a requirement for FNPT II)
- Not simulated - No wig-wags on taxiway F, EICK. (Not a requirement for FNPT II)

# FSTD IE-314 – Evaluation 4th/5th April 2024 SUBJECTIVE

## SUBJECTIVE/FUNCTIONAL - C UNSERVICEABILITY

- C1 - DECLARED - ITEM 6.1.C.9 FROM 2019 REPORT REMAINS OPEN: NO AIR AVAILABLE FROM AIR VENTS INSTALLED ON THE LHS AND RHS OF THE COCKPIT INSTRUMENT PANEL.
  - AIR VENT INSTALLED AND SWITCH FITTED
- C2 - DECLARED - ITEM 6.1.C.20 FROM 2019 REPORT REMAINS OPEN: TRANSPONDER 'FAILURE' MESSAGE; NUMBER 1 TRANSPONDER INOPERATIVE.
  - RESOLVED BY ALSIM SUPPORT
- C3 - DECLARED - ITEM 6.1.C.21 FROM 2019 REPORT REMAINS OPEN: WARNING MESSAGES ALWAYS ON: MFD AND PFD DATABASE ERROR.
  - RESOLVED BY ALSIM SUPPORT
- C4 - DECLARED – NO HOLD SHORT POINTS ON GENERIC AIRPORTS.
  - NOT A REQUIREMENT FOR FNPTII – MAYBE ADDED AS FUTURE REQUIREMENT..



# FSTD IE-314 – Evaluation 4th/5th April 2024 SUBJECTIVE

- C5 - DECLARED – AT EICK, TAXIWAY F THERE ARE NO WIG WAGS.
  - NOT A REQUIREMENT FOR FNPTII – ADDED TO FUTURE REQUIREMENT.
- C6 - THERE WAS AN INTERMITTENT MECHANICAL VIBRATION (PULSING) IN BOTH THE LH AND RH JOY STICKS DURING THE SUBJECTIVE FLYOUT.
  - POTENTIOMETER REPLACED.
  - PLACARD WAS PLACED - NO REPORTS
  - DISCUSSED AT INTERNAL INSTRUCTOR MEETING WHERE ALL INSTRUCTORS WERE ADVISED.

## SUBJECTIVE/FUNCTIONAL - E RECOMMENDATION FOR IMPROVEMENT

- E1 - RH PROJECTOR DISCOLORATION – VERY EVIDENT YELLOW HUE VISIBLE ON THE RHS BUT ACCEPTABLE AT THIS TIME FOR FSTD TRAINING. IT IS RECOMMENDED THAT THE AFFECTED PROJECTOR BE REPLACED WHEN A SPARE PART BECOMES AVAILABLE.
  - PROJECTOR PURCHASED/FITTED AND CONFIGURED.
- E2 - IT WAS NOT CLEAR AT THE FSTD WHAT NUMBER TO CALL IN THE EVENT OF AN EMERGENCY.
  - PLACARD ERECTED IN SIM

# FSTD IE-314 – Evaluation 4th/5th April 2024 OBJECTIVE

## SUBJECTIVE/FUNCTIONAL - F COMMENT

- F1 - IT WAS NOTED THAT THE FSTD OPERATOR NOW HAS AN IPAD WHICH CAN BE USED TO CONTROL THE IOS IN ADDITION TO CONTROL AT THE IOS STATION
  - NOTED AND CLOSED

## OBJECTIVE - A UNACCEPTABLE

A1 - QTG 2CII 1A – FLAP CHANGE DYNAMICS DURING TAKE-OFF (RETRACTION), WAS RUN MANUALLY DURING THIS EVALUATION. ALL THREE TOLERANCE ITEM GRAPHS (AIRSPEED, ALTITUDE AND PITCH) WERE COMPLETELY OUTSIDE ALLOWED TOLERANCES AND COULD NOT BE PASSED.

ATTACHED MANUAL QTG TO TICKET. GENERAL TREND AND MAGNITUDE CAN BE ACHEIVED BUT IT IS NOT PERFECT.

# FSTD IE-314 – Evaluation 4th/5th April 2024 OBJECTIVE

- A2 - QTG 2DVI – RUDDER RESPONSE DURING APPROACH, WAS RUN MANUALLY DURING THIS EVALUATION. THE GRAPH FOR TOLERANCE ITEM ‘YAW RATE’ WAS COMPLETELY OUTSIDE ALLOWED TOLERANCES AND COULD NOT BE PASSED. ALSO THE MANUAL PROCEDURE SHOULD STATE THAT THE LEFT RUDDER PEDAL SHOULD BE PRESSED. ALSO IT WAS NOTED THAT THE RUDDER PEDAL POSITION WAS OFFSET AT THE START OF THE QTG BY 9 DEGS (LEFT PEDAL), 13 DEGS (RIGHT PEDAL) AND 12 DEGS (NO PEDAL MOVEMENT).
  - TICKET OPENED WITH ALSIM, THE “OFFSET” WAS RESOLVED BY THE PROVIDED RECALIBRATION TOOL ON THE IOS. HOWEVER, QTG CANNOT BE PASSED STILL USING THE SPECIFIC INSTRUCTIONS IN THE QTG.
  - ATTACHED MANUAL QTG AS PDF TO ANNAUL EVALUATION TICKET
  - GENERAL TREND AND MAGNITUDE CAN BE ACHEIVED BUT IT IS NOT PERFECT.

## OBJECTIVE - B RESERVATION

- B1 - ITEM 6.2.B.5 FROM 2019 REPORT REMAINS OPEN: IT WAS NOT EVIDENT HOW THE SOFTWARE CHANGE
  - REQUEST CLOSE - ATTACHED ALSIM TICKET TO EVALUATION REPORT. ALSIM STATE NO AIRPORTS/SIGNAGE OR QTG AFFECTED BY UPDATES - ONLY NEW LOAD VERSIONS REQUESTED BY OPERATOR



# FSTD IE-314 – Evaluation 4th/5th April 2024 OBJECTIVE

## OBJECTIVE - E RECOMMENDATION FOR IMPROVEMENT

- E1 - THE FSTD OPERATOR ADVISED THAT SIX QTGS REQUIRE RE-MASTERING. FOLLOWING A REVIEW OF THE QUARTERLY QTG RE-RUNS IT APPEARS THAT SEVENTEEN QTGS NEED TO BE REMASTERED. THE FSTD OPERATOR SHOULD PROVIDE TO THE IAA, FOR EACH QTG, THE REQUIREMENT FOR RE-MASTERING, THE OLD QTG AND THE NEW QTG. THERE WAS NO TIME IN THIS EVALUATION TO REVIEW THE SEVENTEEN REMASTERED QTGS.
  - SUBMITTED ALL CHANGES AFTER CAA EVALUATION.
  - ALL QTG'S CHECKED AND REMASTERED AND STAMPED.
- E2 - THE QTG 4.C.I (VGS) RE-RUN SHOULD HAVE THE RESULT INDICATED ON THE RE-RUN QTG.
  - RESULT INDICATOR NOW ADDED TO RERUN TEMPLATE.

## OBJECTIVE - F COMMENT

- F1 - THE FOLLOWING QTGS WERE RE-RUN DURING THE EVALUATION 2CII 1A (AUTO + MANUAL), 2CIV 1B (AUTO + MANUAL), 2DVI (AUTO + MANUAL), 2DVII B (AUTO) AND 4CI (VGS).
- F2 - THE EVALUATION TEAM WOULD LIKE TO THANK ALL AT AFTA FOR THE VERY GOOD PRESENTATION OF THE FSTD AND THEIR FULL ASSISTANCE DURING THE EVALUATION

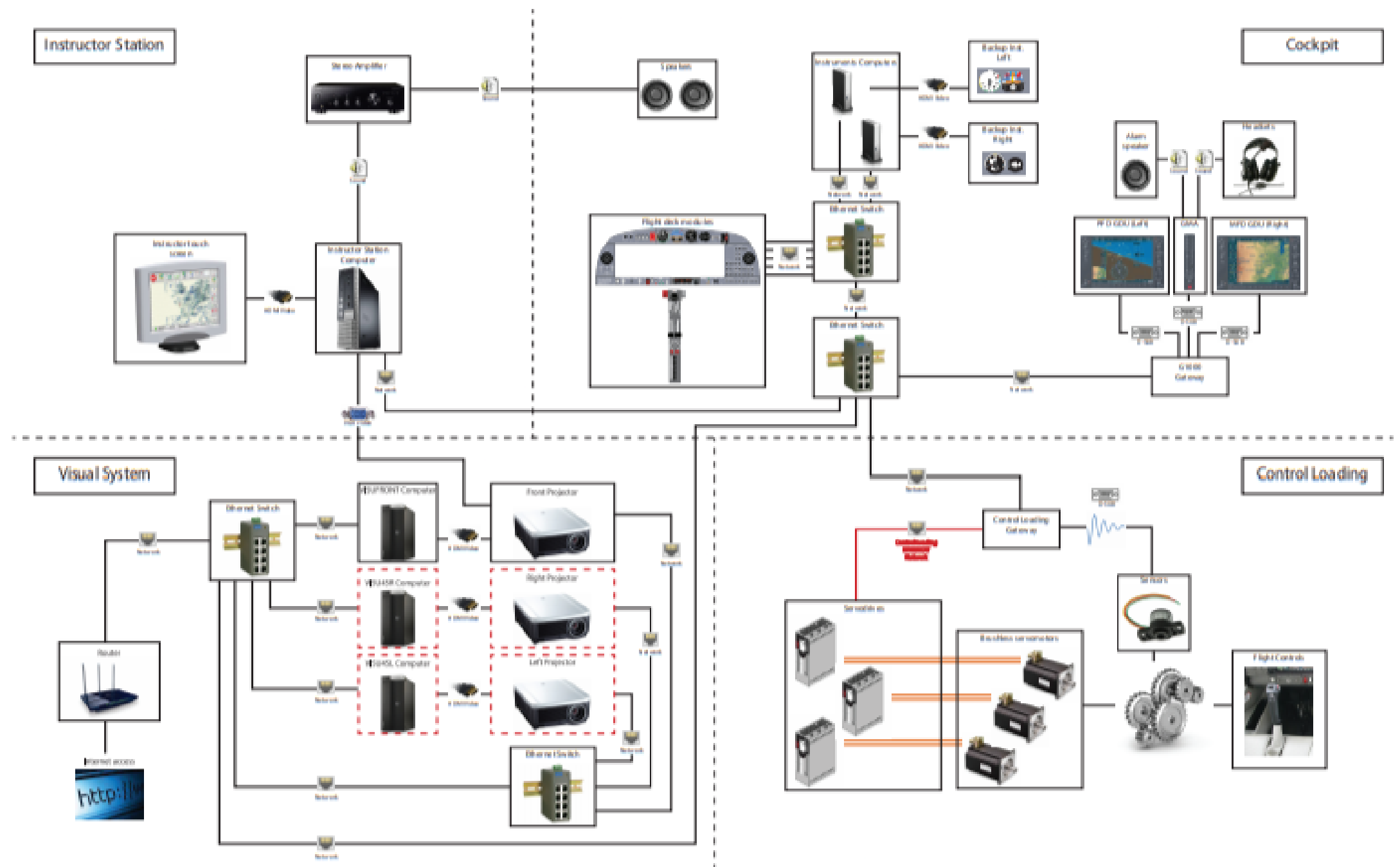
# FSTD IE-314 – Evaluation 4th/5th April 2024 INTERNAL

- **NO SOUND ON SIM**
  - CABLE CONNECTING PC TO TO PANASONIC SOUND DEVICE NEEDED REPLACES TWICE IN THE LAST 12 MONTHS - 3.5MM TO 2 RCA. IDENT SOUNDS WORK AS THEY ARE DIFFERENT SOUND SYSTEM.
- **TECHLOG PC - INOP - NO IMAGE ON SCREEN**
  - REPLACED WITH DIFFERENT LAPTOP - CONFIGURED START PAGES AND ALL REQUIRED SHORTCUTS EG, TECHLOGS .

**IE314 HAS BEEN AMAZINGLY ISSUE FREE IN 2023/2024**

# Usage and reliability

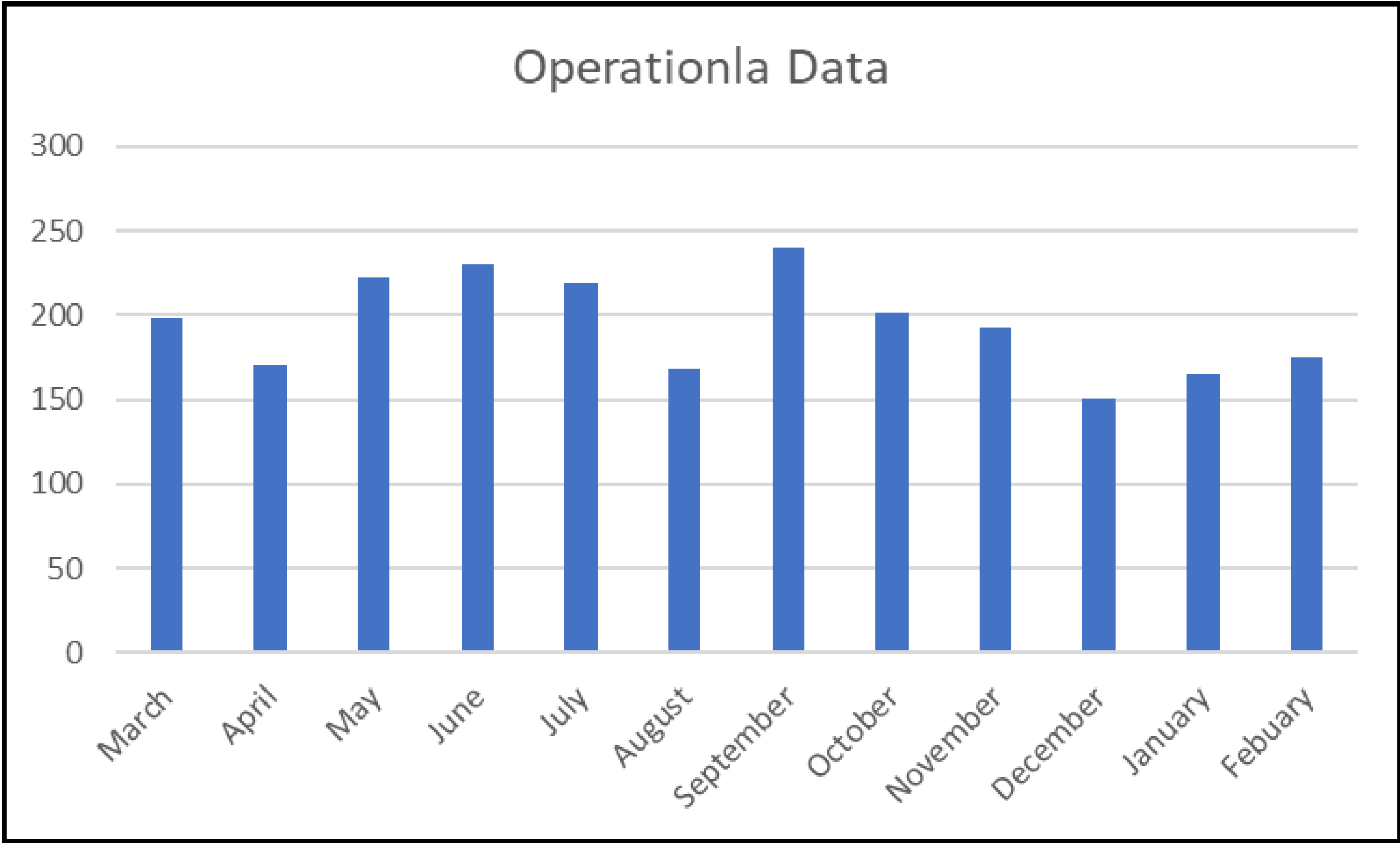
Training hours month by month during the past year, numbers of issues raised in the technical log, training hours lost, availability rate





# Operational data - 01-March-23 to 29-Feb-24

March	198
April	171
May	223
June	230
July	219
August	168
September	240
October	202
November	193
December	151
January	165
Febuary	175
	2335



OVER THE LAST 12 MONTHS ATLANTIC FLIGHT TRAINING WAS THE ONLY USER OF THE IE-314 FSTD WITH TOTAL 2335 HOURS OF OPERATIONAL USE. A SMALL INCREASE OVER 2023 (2230 HOURS)

# Usage and reliability - 01-March-23 to 29-Feb-24

Month	Training Hours	Techlogs Issues	Hours lost	Maintenance	Availability rate
March	198	1	0	1	99.99
April	171	0	0	1	99.99
May	223	0	0	1	100.00
June	230	1	0	5	99.98
July	219	0	0	1	100.00
August	168	0	0	5	99.97
September	240	0	0	1	100.00
October	202	1	0	1	100.00
November	193	1	0	1	99.99
December	151	0	0	5	99.97
January	165	0	0	1	99.99
Febuary	175	0	0	5	99.97

# Training hours lost - 01-March-23 to 29-Feb-24

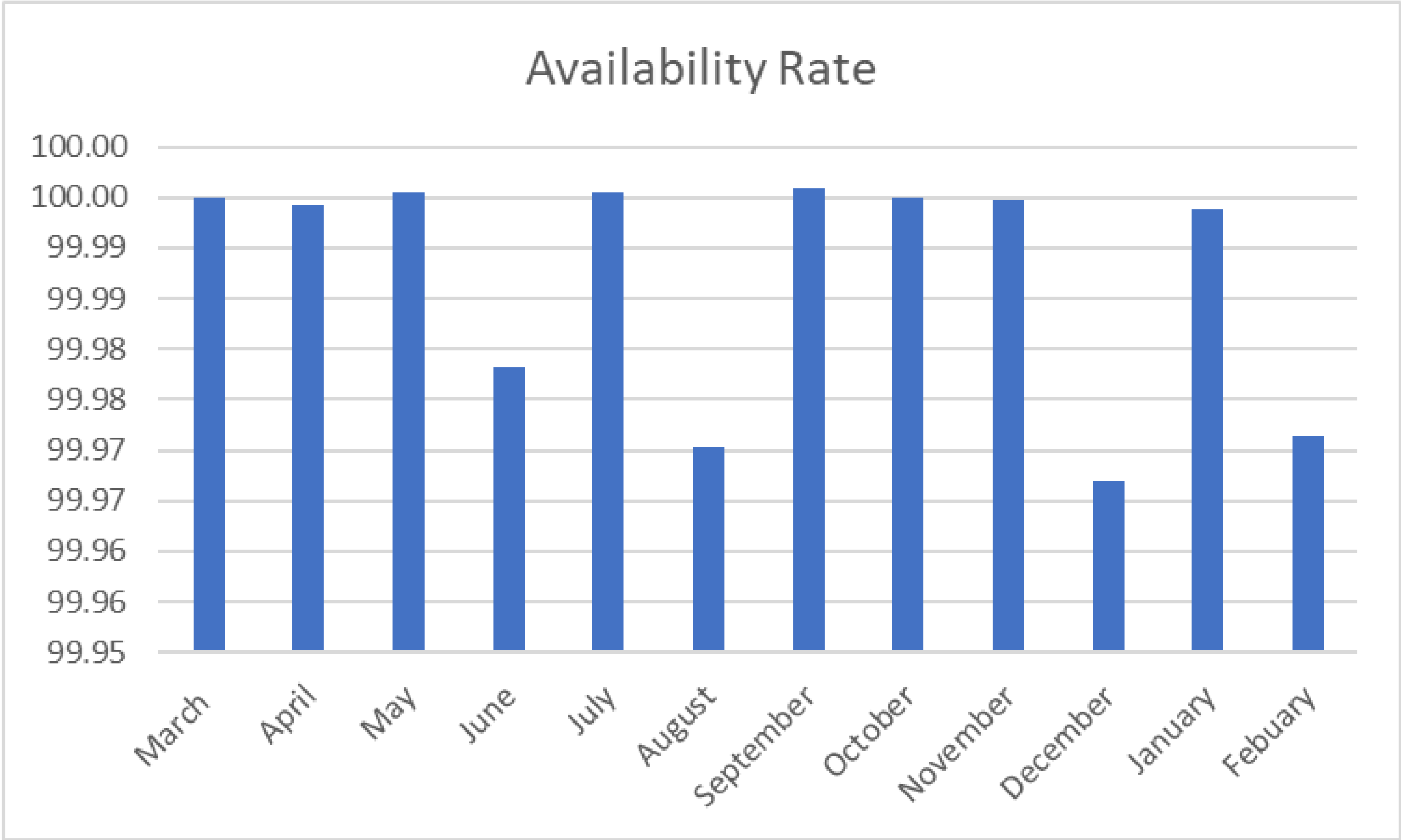


**TOTAL LOST: 2 HRS OUTSIDE OF PLANNED MAINTENANCE**



# Average availability - 01-March-23 to 29-Feb-24

Month	Availability rate
March	99.99
April	99.99
May	100.00
June	99.98
July	100.00
August	99.97
September	100.00
October	100.00
November	99.99
December	99.97
January	99.99
February	99.97



● AVERAGE AVAILABILITY: 98.98 % (LAST YEAR 98.98%)

# Failure tabulation

	HIGH	MED	LOW		TOTAL
Aircraft and Flight Model					
Aircraft Systems			1		1
Airports/Navigation					
Audio			2		2
Autoflight					
Control Loading					
EFIS/FMS					
General					
Hardware			1		1
IOS					
Procedural					
QTG					
SIM Architecture					
Supplies					
Training Exercises and Failures					
Visual System			1		1
HIGH	Defect priority of high is assigned and rectifications should be targeted to be completed in 10 days				
MED	Defect priority of medium is assigned and rectifications should be targeted to be completed in 30 days				
LOW	Defect priority of low is assigned and rectifications should be targeted to be completed in 90 days				

# Changes and modifications

**HARDWARE AND/OR SOFTWARE UPDATES OR  
CHANGES SINCE LAST EVALUATION AND  
PLANNED HARDWARE AND/OR SOFTWARE  
UPDATES OR CHANGES**





# Hardware changes

## MAJOR CHANGES:

- NONE.

## MINOR CHANGES:

- TECHLOG LAPTOP REPLACED
- IGNITION KEYS REPLACED (SEVERAL SPARES AS KEYS ARE WEAK)
- AUDIO CABLE REPLACED TWICE IN 2023/2024
- REPLACED RIGHT PROJECTOR (YELLOW DISCOLOURATION)

# Software changes

## MAJOR(IMPACT ON QTG):

- 2012.01 STILL CURRENT LOAD - NO CHANGES.

## MINOR(NO IMPACT ON QTG):

- REGULAR UPDATES PROVIDED BY MANUFACTURER INCLUDING GRAPHICS, AUDIO, SOFTWARE, SQL DATABASE UPDATES

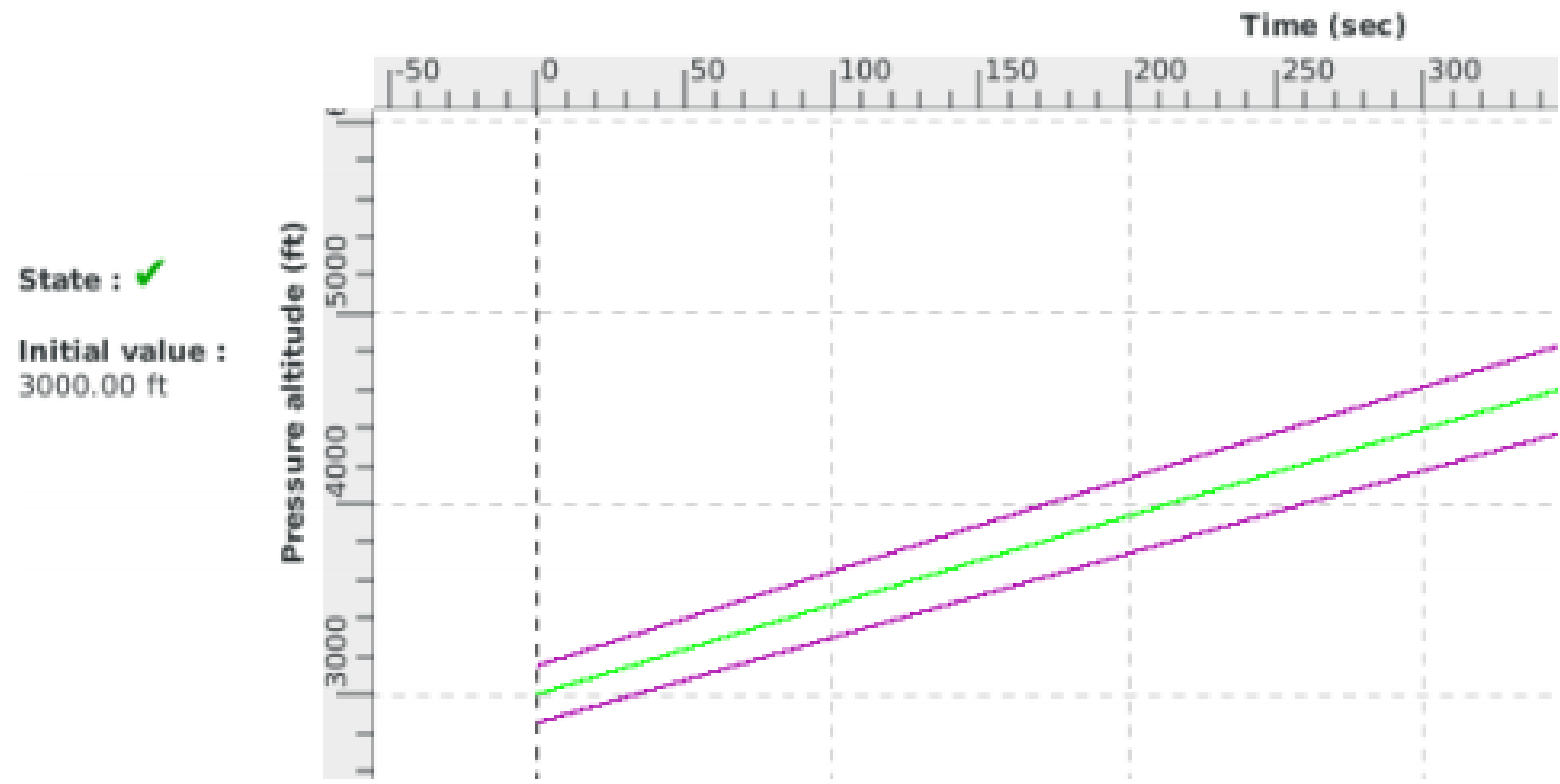
# Airport list

Airport Name	ICAO Code	Scenery Type	ILS Frequency
Dublin	EIDW	Specific	114.35 RW 07/25
Cork	EICK	Specific	114.6 RW 16/34
Paris	LFPG	Specific	119.85,121.15,124.35,125.82 RW 8/9/26/27
Belfast	EGAC	Specific	108.1 RW 04/22
Shannon	EINN	Specific	109.5 RW 06 110/95 RW 24

THE 5 SPECIFIC AIRPORTS LISTED ABOVE ARE MOST USED BY AFTA ,  
ALTHOUGH THE SIM IS CAPABLE OF DOING MANY MORE AIRPORTS BOTH  
SPECIFIC AND GENERIC



# QTG status



Q1	Q2	Q3	Q4
1ci	1cii	1fi	1fii
2ai2	2aii2	2aiii2	2ci1
2ci2	2cii1a	2cii1b	2cii2a
2cii2b	2civ1a	2civ1b	2civ2a
2civ2b	2cva	2cvb	2cvia
2cvib	2cvii	2cviiib1	2cviiib2
2cviiib3	2cix	2cx	2diauto
2diia	2diib	2diii	2div1a
2div1b	2dva	2dvb	2dvi
2dviia	2dviib	2dviiaa	2dviibb
4aia	4aib	4aia	2cviiib4

THE LIST INCLUDE RESULTS FOR EACH QTG TEST AVAILABLE, THE DATE OF RUN DURING THE PAST YEAR, ANY COMMENT, AND THE STATUS OF THE TESTS

# QTG overview

## QTG RERUN AND REVIEW:

- 14-06-2023 Q1 QTG RUN AND VERIFIED CORRECT
- 22-08-2023 Q2 QTG RUN AND VERIFIED CORRECT
- 03-12-2023 Q3 QTG RUN AND VERIFIED CORRECT
- 04-02-2024 Q4 QTG RUN AND VERIFIED CORRECT

PLEASE REFER TO “QTG COVER SHEET IE314” DOCUMENT - SENT WITH FLYOUTS.

SUBJECTIVE FLIGHT TEST: COMPLETED ON QUARTERLY BASIS TOGETHER WITH QTG TESTING

SUBJECTIVE SYSTEM TEST: SPLIT INTO 4 PARTS AND CONDUCTED ON QUARTERLY BASIS TOGETHER WITH QTG TESTING

# 13. Audits



RESULTS OF SCHEDULED INTERNAL AUDITS AND ADDITIONAL QUALITY INSPECTIONS (IF ANY) SINCE LAST EVALUATION AND A SUMMARY OF ACTIONS TAKEN



# 13. Audits

## LIST OF FSTD COMPLIANCE AUDITS CARRIED OUT MARCH 2023 –MARCH 2024

- INDEPENDENT AUDIT 03.03.2023
- MANAGEMENT, ADMINISTRATION AND COMPLIANCE AUDIT 29.03.2023
- Q1 MANAGEMENT REVIEW 05.04.2023
- SMS AUDIT FSTD 26.05.2023
- FSTD OPERATOR AUDIT 29.05.2023
- Q2 MANAGEMENT REVIEW FSTD 29.06.2023
- LITTLE ISLAND FIRE DRILL 25.07.2023
- Q3 MANAGEMENT REVIEW 04.10.2023
- LITTLE ISLAND FIRE DRILL 27.11.2023
- BALLYGARVAN FIRE DRILL 22.11.2023
- FSTD SMS AUDIT 29.11.2023
- Q4 MANAGEMENT REVIEW 24.01.2024
- 314 DEVICE AUDIT 28.02.2024
- MANAGEMENT, ADMINISTRATION AND COMPLIANCE AUDIT 29.02.2024

Thank-You

**THE END**

**THANK-YOU FROM AFTA**



**Atlantic Flight Training Academy**