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|  | **FSTD EVALUATION REPORT** | |
| **AEROPLANE** | |
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| * 1. **Date of the report:** | Friday, 05 April 2024 |
| * 1. **Report issue number:** | Issue 1 |
| * 1. **FSTD ID code:** | IE 314 |
| * 1. **FSTD operator name:** | Atlantic Flight Training Limited |
| * 1. **Aircraft type and variant or class:** | Generic multi-engine piston aeroplane (representative of Diamond DA42) |
| * 1. **Engine fit(s) simulated:** | Austro Engine AE300, constant speed propeller |

*The conclusions presented are those of the evaluation team. IAA reserves the right to change these after internal review*.

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| * 1. **The evaluation team recommends the FSTD certificate to be:** |
| Issued (initial)  Maintained  Suspended  Limited |
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| * 1. **Certificate update (for recurrent or special evaluation only)** |
| 1. A new certificate should be issued: Yes  No   Enter here the list of updates to be done on the certificate. |

Name: Stanley Sterritt

Date: 05/04/2024



Signature of IAA Technical Inspector:



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| 1. Flight simulation training device (FSTD) characteristics | | |
| 1. Organisation operating the FSTD (FSTDO):   Atlantic Flight Training Limited | | |
| 1. FSTD Location:   Ballygarvan Upper, Kinsale Road, Cork, Ireland. | | Principal Place of Business of the Organisation:  4500 Airport Business Park, Cork International Airport, Cork, Ireland. |
| 1. FSTD Identification:   IE 314 | | |
| 1. FSTD Manufacturer and FSTD Identification serial number:   ALSIM  A42M2-12. | | |
| 1. First entry into service:   04 / 2019 | JAA/EASA initial qualification:  04 / 2019 | |
| 1. Visual system:   Alsim / High Definition Visual System, Panoramic Projection / 3 projectors / Day-Dusk-Dawn-Night  Alsim / LCD Projectors /210degx60deg / Non collimated | | |
| 1. Motion system:   None | | |
| 1. Aircraft type and variant:   Generic multi-engine piston aeroplane  Representative of Diamond DA42 | | |
| 1. Engine fit(s):   Generic multi-engine piston with constant speed propeller (representative of Austro Engine AE300) | | |
| 1. Engine instrumentation:   Garmin 1000 NIX – Cockpit Display System. | | 1. Flight instrumentation:   Garmin 1000 NIX – Cockpit Display System. |

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| 1. Evaluation details | |
| 1. Dates of evaluation:   04/04/2024 to 05/04/2024 | 1. Date of previous evaluation:   21/03/2023 |
| 1. Type of evaluation:   Initial  Recurrent  Special | |
| 1. FSTD qualification level recommended:   FFS  A  B  C  D  Special category  Grandfather rights  FTD  1  2  3  Interim FSTD qualification  FNPT  I  II  III  MCC  BITD | |
| 1. Technical criteria primary reference document:   CS-FSTD(A) issue 2 | |
| 1. Validation data roadmap (VDR) ID-No:   Supported by ALSIM A42M2 DA42-VI QTG Chapter 12.2. | |

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| 1. Supplementary information |
| 1. Company representative(s):   Michael Smith, FSTD Maintenance Manager.  Gary McCourt, Flight Instructor. |
| 1. FSTD seats available:   2 crew + 1 instructor + 2 observer + 0 jumpseat |
| 1. Visual databases used during evaluation:   [EICK 34], [EINN 24] |
| 1. Software load reference/revision currently used in training:   2012.01 / 21-March-2021 |
| 1. Additional capabilities of the FSTD:   None. |
| 1. Other:   None. |

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| 1. Training, testing and checking considerations | | | | | | | | | |
| 1. CAT I | | RVR | 550 | m |  | DH | 200 | ft | yes |
| 1. CAT II | | RVR | 300 | m |  | DH | 100 | ft | n/a |
| 1. CAT III (lowest minimum) | | RVR |  | m |  | DH |  | ft | n/a |
| 1. LVTO | | RVR |  | m | | | | | n/a |
| 1. Recency | | | | | | | | | n/a |
| 1. IFR-training / check | | | | | | | | | yes / yes |
| 1. Type rating | | | | | | | | | n/a |
| 1. Proficiency checks | | | | | | | | | n/a |
| 1. Autocoupled approach | | | | | | | | | yes |
| 1. Autoland / roll out guidance | | | | | | | | | n/a / n/a |
| 1. ACAS I / II | | | | | | | | | n/a / n/a |
| 1. Windshear profiles available | | | | | | | | | n/a |
| 1. Windshear warning system / predictive windshear | | | | | | | | | n/a / n/a |
| 1. WX-radar | | | | | | | | | n/a |
| 1. HUD / HUGS | | | | | | | | | n/a / n/a |
| 1. FANS | | | | | | | | | n/a |
| 1. GPWS / EGPWS | | | | | | | | | n/a / n/a |
| 1. GPS | | | | | | | | | yes |
| 1. ETOPS capability | | | | | | | | | n/a |
| 1. RNP APCH LNAV | | | | | | | | | yes |
| 1. RNP APCH LNAV/VNAV | | | | | | | | | yes |
| 1. RNP APCH LPV | | | | | | | | | yes |
| 1. RNP AR APCH | | | | | | | | | n/a |
| 1. Other: | None | | | | | | | | |

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| 1. Additional considerations (for helicopter only) | |
| HTAWS  Airborne Radar Approach (ARA)  Night Vision Imaging System (NVIS)  Ditching  Ship Landing (ship reacting to different sea states)  Rig Landing | Elevated Platform Landing  Slope landing  Confined area landing  Cargo hook operation  Hoist operation  External camera (cargo hook / hoist) |

1. Classification of Items

**UNACCEPTABLE**

An item that fails to comply with the required standard and, therefore, affects the level of qualification or the qualification itself. If these items will not be corrected or clarified within a given time limit, EASA should have to vary, limit, suspend or revoke the FSTD qualification.

**RESERVATION**

An item where compliance with the required standard is not clearly proven and the issue will be reserved for a later decision. Resolution of these items will require either:

1. an IAA policy ruling; or
2. additional substantiation.

**UNSERVICEABILITY**

A device which is temporarily inoperative or performing below its nominal level.

**LIMITATION**

An item which prevents the full usage of the FSTD according to the training, testing and checking considerations due to unusable devices, systems or parts thereof.

**RECOMMENDATION FOR IMPROVEMENT**

An item which meets the required standard, but where considerable improvement is strongly recommended.

**COMMENT**

Self-explanatory

**PERIOD OF RECTIFICATION**

As set out in AMC2 ARA.FSTD.100(a)(1) point (b):

Following an evaluation, it is possible that a number of defects are identified. Generally, these defects should be rectified and the Irish Aviation Authority evaluation team notified of such action within 30 days. Serious defects, which affect flight crew training, testing and checking, could result in an immediate downgrading of the qualification level, or if any defect remains unattended without good reason for a period greater than 30 days, subsequent downgrading may occur or the FSTD qualification could be revoked.

1. Results
   1. Subjective/functional
2. **Unacceptable**

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|  | None |

1. **Reservation**

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|  | None |

1. **Unserviceability**

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|  | There are no stop bars at EICK taxiway F. |
|  | The operation of the Fuel Shut-off switches in not representative of the aircraft. There is no friction in the current switch mechanism. |
|  | Traffic Alerting System operation at night in not realistic. An intruder aircraft is not visible during night operation. |
|  | With pitot heat selected off in icing conditions(Icing levels 2 and 3), there was no effect evident. |
|  | The background panel lighting for the engine start switching on instrument panel LHS is unserviceable. |
|  | With a ‘Generator Left Amp Overload’ failure selected at the IOS, there was no failure alert notified on the instrument panel. |
|  | The Alternator RH selector switch on the instrument panel is unserviceable |

1. **Limitation**

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|  | None |

1. **Recommendation for improvement**

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|  | The FSTD centre projector has a very evident notable grey hue visible. |
|  | A placard containing emergency contact numbers is installed in the FSTD however following contact with external emergency services it is not clear how to contact the duty instructor should coordination with the emergency services be required. |
|  | A torch exclusive to the FSTD should be made available at the device. |
|  | The dossier does not include the date of entry into service, ref GM3 ORA.FSTD.100. The date of manufacture is included in the dossier however the date of entry into service is not advised. |
|  | The manual power isolation switch(s) at the FSTD are not identified as such. |
|  | The cockpit canopy closes abruptly when not manually held. It is recommended to service the existing canopy restrictor devices. |
|  | The lighting from the emergency exit lights at the exits is noticeable in the FSTD visual system. |
|  | The Garmin system has the ability to select WAAS and EGNOSS however the IOS has only a WAAS selection for GPS. |

1. **Comment**

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|  | None |

* 1. Objective

1. **Unacceptable**

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|  | QTG 2.c.ii.1a – Flap change dynamics during take-off (retraction) was run manually during the evaluation. The graphs for all toleranced items exceeded the tolerances when following the presented Manual Test Procedure instructions. |
|  | QTG 2.d.vi – Rudder response during approach was run manually during the evaluation. The graph for the tolerance item ‘Yaw Rate’ exceeded the tolerance when following the presented Manual Test Procedure instructions. |

1. **Reservation**

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|  | The date in the QTG List of effective pages does not correctly reflect the actual date of the Master QTG validation tests.  For example, the ‘Master Date’ of QTG 1.c.i Normal climb all engines operating is 01/03/19 with a ‘Result date’ of 28/03/2019(Master Load 1902) however the LEP reflects a date of 31/01/2019(Revision 1.0).  For example, the ‘Master Date’ of QTG 1.c.ii One engine inoperative second segment climb is 27/07/21 with a ‘Result date’ of 19/07/23 (Master load 2012.01) however the LEP reflects a date of 27/07/2021(Revision 1.02).  From the example it can be seen that the dates shown in the LEP are in some cases before the actual master test date and, in some cases the dates shown in the LEP are after the actual master test date. It is not possible to confirm if the Master test in the binder is the correct configuration. |

1. **Recommendation for improvement**

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|  | None |

1. **Comment**

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|  | The following QTGs were re-run during the evaluation;  Auto: 1.c.ii, 2.a.i.2, 2.a.ii.2, 2.c.i1, 2.c.ii.1.a, 2.d.iv.1a, 2.d.vi  Manual: 2.a.i.2, 2.c.ii.1.a, 2.d.vi, 4.c.i |
|  | QTG 2.a.i.2. Manual test procedure. Typographical error in the manual test procedure which incorrectly references QTG Vol II. |
|  | DECLARED - 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.  This configuration control item will be closed in the FSTD report and transferred to a CMS audit finding for resolution. |



1. Evaluation Team



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| Name | Position | Organisation | Signature |
| Stanley Sterritt | Technical Inspector | IAA |  |
| Erkin Seyyar | Technical Inspector | IAA |  |
| Capt John Murray | Flight Inspector | IAA |  |
| Gary McCourt | Deputy Chief Flying Instructor | AFTA FSTD Operator |  |
| Mark Casey | Accountable Manager | AFTA FSTD Operator |  |
| Kyle Johnston | Compliance Monitoring Manager | AFTA FSTD Operator |  |
| Michael Smith | FSTD Maintenance Manager | AFTA FSTD Operator |  |