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| Operator File Ref: | Name of Operator: Boeing |
| SIM Address: 30 Changi North Rise,#01-01  Singapore 498780 | SIM Owned By: Boeing |
| Aircraft Type: B 737-800 | SIM Level: D |
| SIM Approving Agency (ID): FAA 1282 1379 | SIM Approving CAA Authority (ID): EASA EU-UKAS412 EU A0069 |
| Evaluation (GRD TNG/CBT/SIM/SFI/TRI/TRE): FOI. CAAB | Date(s) of Evaluation: FAA 16-08-2015  EASA 22-06-2015 |
| Name(s) of SFI/TRI: | Name(s) of TRE: |
| Name(s) of Trainee: | Name of Inspector: Capt Akram |
| CAAB Office Order.CAAB/52/217/11/FI/ | Office Order Date: 12-08-15 |

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| **ASSESSMENT : S = Satisfactory; U=Unsatisfactory; NC = Not Checked; NA = Not Applicable**  **(Comments Required for U)** |

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| **AREAS OF ASSESSMENT AND CHECKLIST** | **S/U/NC/NA** | **COMMENT** |
| 1. **PROCESSING OF REQUEST** | | |
| 1. Were the request documentation contents satisfactory? | **S** |  |
| 1. Was the FAA ATG and QTG Current? (FAA Approval) | **S** |  |
| 1. Was the JAA TG and QTG Current? | **S** |  |
| 1. Was the other CAA TG and QTG Current? CAA ID? | **NC** |  |
| 1. Was the CAAB TG and QTG Current? (CAAB Approval) |  |  |
| 1. Was the approving CAA contacted to confirm currency of approval? | **NC** |  |
| 1. Phone Number of Approving CAA? | **NC** |  |
| 1. Is the simulator to be used for takeoff and landing qualification? | **YES** |  |
| 1. Is the simulator to be used for LOFT training? | **YES** |  |
| 1. Is the simulator to be used for Category II/III approach training and checking? | **NA** |  |
| 1. Is the simulator to be used for ETOPS training and checking? | **NO** |  |
| 1. **FACILITY LOCATION** | | |
| 1. Environmentally suitable and secured? | **S** |  |
| 1. Transportation facilities for pick up & drop adequate? | **S** |  |
| 1. Hotel Facility adequate for rest and study? | **S** |  |
| 1. Any Other |  |  |
| 1. **GROUND TRAINING FACILITY** | | |
| 1. Training/Class Rooms adequate? | **S** |  |
| 1. Briefing/De-briefing Rooms specious and well equipped? | **S** |  |
| 1. Equipment/Audio/Audio Visual adequate? | **S** |  |
| 1. Lesson Plan/Execution performance adequate? | **S** |  |
| 1. Technical Documents/Checklist available? | **S** |  |
| 1. Documents, Maps, Charts available? | **S** |  |
| 1. Board/Marker/Projector/Lighting adequate and available? | **S** |  |
| 1. Safety Equipment & Emergency Training arrangement? | **S** |  |
| 1. Any Other |  |  |
| 1. **COMPUTER BASED TRAINING FACILITY** | | |
| 1. Equipment/Audio/Audio Visual arrangement adequate? | **S** |  |
| 1. Panel Layouts as per the operator’s aircraft? | **S** |  |
| 1. Lesson Plan/Execution as per the operator’s training policy? | **S** |  |
| 1. Response to Switches/Levers adequate? | **S** |  |
| 1. Instrument Adequacy? | **S** |  |
| 1. System Accuracy | **S** |  |
| 1. Communication Procedure adequate? | **S** |  |
| 1. Instruction Adequacy by SFIs/TRIs | **S** |  |
| 1. Safety & Security Arrangements adequate? | **S** |  |
| 1. Any Other |  |  |
| 1. **SIMULATOR MAINTENANCE ARRANGEMENTS** | | |
| 1. Is the daily preflight documentation easily accessible for review? | **S** |  |
| 1. The simulator’s maintenance records do NOT show a pattern of recurring failures? | **S** |  |
| 1. Does the simulator owner provide adequate personnel to correct simulator deficiencies during the periods of time the operator’s personnel will be engaged in simulator training and checking? | **S** |  |
| 1. **SIMULATOR TESTING PROVISIONS** | | |
| 1. Is there a means for quickly and effectively testing simulator programming and hardware? | **NC** |  |
| 1. Is there documentation that the control feel dynamics and relative integrated sensory cues were tested in the last CAA approval? | **NC** |  |
| 1. Is there a means of recording the visual response time for visual systems? | **NC** |  |
| 1. Were the demonstration of surface resolution confirmed by calculations in the statement of compliance? | **NC** |  |
| 1. Do the test procedures confirm that the visual system colour, RVR, focus, intensity, level horizon, and attitude adequately replicate those experienced during operation of the aircraft? | **NC** |  |
| 1. Did the visual system meet all standards during the validation of functions and subjective tests? | **NC** |  |
| 1. **GENERAL IMPRESSION OF SIMULATOR- Simulator under maitanance.** | | |
| 1. Is the overall condition and cleanliness of simulator acceptable? |  |  |
| 1. Does the simulator cockpit consist of all the aircraft cockpit space forward of a cross section of the fuselage? |  |  |
| 1. Are the required crew member duty stations and required bulkheads aft of the pilots' seats, (considered part of the cockpit) a replication of the flight deck of the operator’s aircraft? |  |  |
| 1. Are there observer seats available for the check airman/examiner and inspector? |  |  |
| 1. Are the instructor controls adequate to control all required system variables and insert abnormal or emergency conditions necessary for the prescribed procedures and maneuvers? |  |  |
| 1. **COMPARISON TO OPERATOR’S AIRCRAFT** | | |
| 1. Is the simulator cockpit a full scale replica of the operators aircraft cockpit? |  |  |
| 1. Does the simulator replicate the actual instrumentation and switch location of the operator’s aircraft? |  |  |
| 1. Are the direction of movement of control and switches identical to that in the aircraft? |  |  |
| 1. Are circuit breakers properly located and functionally accurate? |  |  |
| 1. Are all differences identified and acceptable? |  |  |
| 1. **PRE-START & GROUND OPERATIONS** | | |
| 1. Cockpit preparation checklist accomplished with normal check indications? |  |  |
| 1. Start checklist accomplished with normal start indications? |  |  |
| 1. Representative sample of abnormalities possible using instructor control panel? |  |  |
| 1. Taxi for takeoff in visual conditions adequately simulated and possible? |  |  |
| 1. If low visibility taxi operations, taxi for takeoff in low RVR adequately simulated and possible, including taxiway lighting and markings? |  |  |
| 1. Pre-takeoff checklist accomplished with realistic indications? |  |  |
| 1. **TAKEOFF & CLIMB OPERATIONS** | | |
| 1. Normal maximum gross weight takeoff realistically simulated? |  |  |
| 1. Normal visual takeoff with maximum cross-wind component realistically simulated? |  |  |
| 1. Low visibility (minimum RVR approved for operator) maximum gross weight takeoff realistically simulated, including visual cues? |  |  |
| 1. Low visibility (minimum RVR approved for operator) maximum gross weight abort just prior to V1 realistically simulated, including visual cues? |  |  |
| 1. Low visibility (minimum RVR approved for operator) maximum gross weight takeoff with engine failure at V1 and climb profile realistically simulated, including visual cues? |  |  |
| 1. **INFLIGHT MANUEVERS** | | |
| 1. Warnings for approach to stall in a climb configuration conform to the expected sequence and approximate airspeeds, with realistic recovery profile possible? |  |  |
| 1. Warnings for approach to stall in a landing configuration conform to the expected sequence and approximate airspeeds, with realistic recovery profile possible? |  |  |
| 1. Wind shear profiles provide realistic indications, with escape configuration possible? |  |  |
| 1. Steep turns are possible, with realistic power and attitude configurations? |  |  |
| 1. Engine-out drift-down and level flight possible in conformance with published performance for weight, temperature and altitude? |  |  |
| 1. Navigation simulation appropriate to the type of navigation and RNP requirements? |  |  |
| 1. If approved for ETOPS route checking, the necessary route and alternate possibilities are included in simulator software? |  |  |
| 1. **VISUAL AND INSTRUMENT APPROACHES** | | |
| 1. Maneuvering for landing in visual conditions provide adequate visual cues? |  |  |
| 1. Category I precision approach can be made to prescribed minimums? |  |  |
| 1. Engine-out Category I precision approach can be made to prescribed minimums |  |  |
| 1. If approved for the operator, Category II precision approach can be made to prescribed minimums? |  |  |
| 1. If approved for the operator, Category III precision approach can be made to prescribed minimums? |  |  |
| 1. Non-precision approaches (approved for the operator) are possible using Nav-aids available in the simulator? |  |  |
| 1. Precision approach visual references necessary to land (from lowest approved visibility) are adequate for landing from DH. (Freeze simulator at DH and review)? |  |  |
| 1. Non-precision visual references necessary to land (from lowest approved visibility) are adequate for landing from MDA. (Freeze simulator at MDA and distance and review)? |  |  |
| 1. Circle-to-land maneuvering possible from an instrument approach using visual references. (Freeze simulator prior to turning final and review)? |  |  |
| 1. **LANDING & TAXING TO GATE** | | |
| 1. Visual landing from DH possible using visual cues and procedures? |  |  |
| 1. Rejected landing just prior to touchdown requires realistic configuration and thrust settings for proper completion? |  |  |
| 1. Landing in visual conditions with maximum cross-wind component provides realistic approach and landing requirements? |  |  |
| 1. Engine-out landing from an Category I precision approach can be completed in accordance with profile? 2. If approved for the operator, Category II or III hand-flown touchdown and rollout realistically possible with visual cues? |  |  |
| 1. If approved for the operator, Category III Auto-land functions properly throughout the touchdown and rollout with landing? |  |  |
| 1. Taxi to the gate possible in visual conditions? |  |  |
| 1. If approved for operator, taxi to the gate possible in lowest visibility minima approved? |  |  |
| 1. **ABNORMAL AND EMERGENCY EVENT REPLICATION** | | |
| 1. All planned abnormal indications can be realistically simulated? |  |  |
| 1. Completion of all planned abnormal procedures can be accomplished? |  |  |
| 1. All emergencies can be realistically simulated? |  |  |
| 1. Completion of all emergency procedures can be accomplished? |  |  |
| 1. **REPLICATION OF AERODYNAMIC CONTROL FORCES** | | |
| 1. Do the control forces and control travel replicate those of the operator’s aircraft? |  |  |
| 1. Do the relevant instrument indications replicate those experienced in the operator’s aircraft respond correctly to control movement by crew or induced disturbance to the simulated aircraft: e.g. turbulence or wind shear? |  |  |
| 1. Do the effects of aerodynamic changes for various combination of drag and thrust replicate those normally experienced in the operator's aircraft during flight? |  |  |
| 1. Are the effects of change in aircraft attitude, thrust, drag, altitude, temperature, gross weight, centre of gravity location, and configuration adequately replicated? |  |  |
| 1. **REPLICATION OF SYSTEMS/PROCEDURES** | | |
| 1. Do the communications, navigation and caution and warning equipment correspond to that installed in the operator’s aircraft? |  |  |
| 1. Do the simulator systems replicate applicable aircraft system operation both on the ground and in flight? |  |  |
| 1. Is it possible to accomplish all normal, abnormal and emergency procedures as specified in the operator’s aircraft and training documentation? |  |  |
| 1. **REPLICATION OF SENSORY PERCEPTIONS** | | |
| 1. Are the sounds and aircraft noise perceptible to the pilot during ground and flight operations of the operator’s aircraft replicated accurately? |  |  |
| 1. Do the cockpit sounds which result from pilot actions replicate those experienced in the operator’s aircraft? |  |  |
| 1. **REPLICATION OF AIRCRAFT MOTION** | | |
| 1. Do the motion cues e.g. touchdown cues a function of the simulated rate of descent? |  |  |
| 1. Do the touchdown cues correspond to the rate of descent? |  |  |
| 1. **REPLICATION OF VISUAL CUE** | | |
| 1. Continuous minimum collimated visual field-of-view as specified? |  |  |
| 1. Verification of visual ground segment and visual scene content at a decision height on landing approach? |  |  |
| 1. Do the visual cues adequately replicate deck angle and sink rate required for depth perception during takeoffs and landings? |  |  |
| 1. Dusk scene to enable identification of visible horizon and terrain characteristics? |  |  |
| 1. Visual landing cues for daylight, dusk and night adequate for recognition of airport, terrain and major landmarks and accomplishment of landing? |  |  |
| 1. **AVAILABLE OPERATOR DOCUMENTATION** | | |
| 1. Is the operator’s approved condensed checklist available for use during training and checking activities in the simulator? | **S** |  |
| 1. Is the operator’s quick reference abnormal and emergency checklist available for use during training and checking activities in the simulator? | **S** |  |
| 1. Is the operator’s aircraft operating manual containing expanded normal, abnormal and emergency procedures and aircraft limitations available for use during training and checking activities in the simulator? | **S** |  |
| 1. Is the operator’s manual for aircraft systems function and operationavailable for use during training and checking activities in the simulator? | **S** |  |
| 1. Is the operator’s manual for runways analysis and aircraft performance available for use during training and checking activities in the simulator? | **S** |  |
| 1. Is the operator’s approved minimum equipment list available for use during training and checking activities in the simulator? | **S** |  |
| 1. Are the operator’s instrument departure, en-route and approach charts available for use during training and checking activities in the simulator? | **S** |  |
| 1. **ARRANGEMENTS FOR INSTRUCTOR/CHECK PERSONNEL** | | |
| 1. Have the operator’s training and checking personnel been trained on the use of the simulator to adequately recreate required scenarios? | **S** |  |
| 1. If training instructors are provided by simulator operator, are there records of the training of these persons? | **NC** |  |
| 1. If checking personnel are provided by simulator operator, are there records of the orientation of these persons by the Authority? | **NC** |  |
| 1. Does the simulator control panel allow the instructor/check airman to conduct realistic scenarios of flight with this simulator? | **S** |  |
| 1. Does instructor has developed lesson plans and scenarios for the accomplishment of the training with this simulator? | **S** |  |
| 1. Does instructor have developed lesson plans for realistic LOFT scenarios that provide for a normal line flight operation of the aircraft? | **S** |  |
| 1. Does designated check airman/examiner have developed realistic real-time proficiency check scenarios that provide for all required check events and maneuvers to be accomplished in reasonable time? |  |  |
| 1. **LIST OF DOCUMENTS ATTACHED** | | |
| 1. Flight Simulator Certificate from EASA. | | |
| 1. Flight Simulator Technical Specification. | | |
| 1. FAA Statement of Qualification | | |
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| INSPECTOR COMMENTS & RECOMMENDATIONS  Simulator could not be operated as it was under maintenance. Checked the MQTG wiyh QTG found satisfactory. Approval may be given for two years from the date of inspection.  Signature: …Inspector Name: …Capt Akram Ahmed………………………………  Date: 30-09-2015…….…………………………  ------------------------------------------  Director Of Flight Safety & Regulations |

DISTRIBUTION:

1. Original signed copy to DD(FS)
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