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FLIGHT AND NAVIGATION PROCEDURES TRAINER (FNPT) I/II/ III MCC and BASIC INSTRUMENT TRAINING DEVICE (BITD) CHECKLIST

Initial Evaluation	Recurrent Evaluation	Upgrade Evaluation	Special Evaluation
Date of inspection / evaluation			
Name of Organisation/ ATO			
SACAA ATO number			
Base of operation			
Postal address		Postal code	
Telephone number		Fax number	
Cellular phone number		E-mail	
Chief Simulator Instructor			
Chief Simulator Technician			
SIMULATOR INFORMATION			
SIMULATOR REGISTRATION	Z	P	-
Manufacturer			
Serial number			
Simulation program			
Computer information			
Printer information			
QTG source (POH etc)			
Flight Model	Generic	Specific	Designator
Cockpit & Flt Controls	Generic	Specific	Designator
<u>INSTRUCTIONS, DEFINITIONS AND ABBREVIATIONS</u>			
<ul style="list-style-type: none"> • ✓ - shall mean fully compliant (FC). [Yes] • X - shall mean not compliant (NC). [No] • N/A - shall mean that the requirement is not relevant to the FSTD. (N/A) • -- shall mean Not Reviewed (NR). [Not Checked] 			
<u>DESCRIPTION OF FINDINGS/ REMARKS/ COMMENTS IN ACCORDANCE WITH INTERNATIONAL BEST PRACTISE</u>			
<ul style="list-style-type: none"> • LEVEL 1 A Level 1 finding will require immediate action. This is an item which 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, the SACAA may have to suspend, vary, restrict, or revoke the FSTD qualification. • LEVEL 2 A Level 2 finding will require the submission of a corrective action plan (CAP) within 7 days of the finding. • LEVEL 3 A Level 3 finding will require the submission of a corrective action plan (CAP) within 14 days of the finding. • RESERVATION: An item where compliance with the required standard is not clearly proven and the issue will be reserved for later decision. Resolution of these items will require either: <ul style="list-style-type: none"> - A SACAA policy ruling or - Additional substantiation • UNSERVICEABILITY: A device, which is temporarily inoperative or performing below its normal level. • RESTRICTION: 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.

INITIAL EVALUATION TOWARDS QUALIFICATION:

Conduct a complete evaluation of all systems and functionality of the FSTD.

RECURRENT EVALUATION:

Conduct a sampling evaluation to establish working of systems and functionality.

UPGRADE, POST-MODIFICATION OR SPECIAL EVALUATION:

Conduct evaluation of only those systems or functions that are/ have been affected.

A. CAA RESPONSIBILITY: PRE-INSPECTION PREPARATION		N/A	FC	NC	Note
1.	Initial Only: Has the organisation formally applied for the registration and inspection of this simulator?				
2.	Revalidation: Has the organisation formally applied for the annual recurrent qualification of this simulator?				
3.	Is there proof of payment for this initial/ revalidation inspection?				
4.	Does the application clearly indicate the following?				
	➤ ATO Post Holders				
	➤ Contact telephone numbers				
	➤ Postal address				
	➤ Physical place of business				
5.	Does the organisation have an approved, up to date amended Training and Procedures Manual that includes syllabus and procedures for simulator training?				
B. ON-SITE INSPECTION					
1. INFRASTRUCTURE		N/A	FC	NC	Note
a.	Is the location of the simulator acceptable?				
b.	Is this location conducive to learning ie. noise, distractions, movement of people etc?				
c.	Are the buildings, furnishings and general appearance of this location acceptable?				
d.	Does the simulator have access control?				
e.	FSTD facility fire extinguisher				
f.	FSTD facility first aid kit				
g.	Emergency evacuation markings				
2. DOCUMENTATION – Simulator		N/A	FC	NC	Note
a.	Annual QTG's ran periodically throughout the year				
b.	Reports from previous evaluations				
c.	Simulator training authorisation sheets				
d.	Daily function pre-flight check record				
e.	Maintenance and defect logs				
f.	Charts /approach plates				
g.	Flight Logs				
h.	Simulator/instructor operating manual				
i.	Normal/emergency and abnormal checklists				
j.	Have the simulator instructors been trained on the Instructor's operating station and issued with an IOS certificate?				
3. DOCUMENTATION – User/ Third Party Training		N/A	FC	NC	Note
a.	User certificate				
b.	Lease agreement				
4. SIMULATOR		N/A	FC	NC	Note
a.	Does the simulator database include South African navigation aids and IF Approach facilities? (<i>Minimum of 5 Airfields with approaches updated within 3 months</i>)				

b.	Does the simulator have an enclosed deck?				
c.	Is the general set-up of the simulator, monitor, instructor station acceptable?				
d.	Does the Simulator have sound?				
e.	Is the Instrument panel active or a reasonable representation of an Instrument panel?	Active	Yes	Mock-up	Yes
f.	Is the pilot/student seat acceptable and adjustable?				
g.	Is the stick/ yoke look and feel acceptable, and is the movement free and realistic?				
h.	Is the stick/ yoke interface with the simulator program realistic?				
i.	Are the rudder pedals' look and feel acceptable, and is the movement free and realistic?				
j.	Are the rudder pedals' interface with the simulator program realistic?				
k.	Are the engine controls realistic?				
l.	Are the engines' controls' inputs realistically simulated?				
m.	Is there a system/mechanism for the student/pilot to set the QNH/QNE?				
n.	Does the simulator have the capacity for headsets?				
o.	Can the student communicate with the instructor via headset?				
5. EQUIPMENT (FNPT I, FNPT II and FNPT II MCC)		N/A	FC	NC	Note
a.	Oxygen masks (if applicable) <i>(required if it is an MCC and/or simulated pressurised aircraft)</i>				
b.	Headsets				
c.	Smoke goggles (if applicable) <i>(required if it is an MCC and/or simulated pressurised aircraft)</i>				
d.	Chart holders				
e.	Flashlights				
6. INSTRUCTOR STATION		N/A	FC	NC	Note
a.	Is the instructor station acceptable?				
b.	Can the instructor set / control the scenario of the simulated flight				
c.	Can the instructor control the flight scenario regarding emergencies?				
d.	Can the instructor communicate with the student/pilot via headset?				
e.	Is the interaction between the student and the instructor realistic and acceptable for simulated flight instruction to be effective?				
7. FLIGHT TRACKING AND PRINTING		N/A	FC	NC	Note
a.	Does the simulator program allow the flight to be tracked and the result printed?				
b.	Does the printed flight contain the correct profiles of the flight i.e. plan and side view?				
c.	Does the printed document reflect the duration of the simulated flight?				
C. SYSTEM FLIGHT CHECKS					
1. PREPARATION FOR FLIGHT		BITD	FNPT I	FNPT II	FNPT II MCC
a.	Flight deck design and function identical to type/class				
b.	Flight deck design and functions representative of class				
2. PRE-TAKE-OFF		BITD	FNPT I	FNPT II	FNPT II MCC
a.	Normal engine start				
b.	Taxi – Thrust response				
c.	Taxi – Power lever function				
d.	Taxi – Ground handling				
e.	Taxi – Brake operation normal				
3. TAKE-OFF		BITD	FNPT I	FNPT II	FNPT II MCC
a.	Normal – A/C and engine parameter relationships				
b.	Normal – Acceleration characteristics				

c.	Normal – Nose wheel and rudder steering				
d.	Normal – Crosswind (max demonstrated)				
e.	Normal – Low visibility take-off				
f.	Normal – Landing gear, wing flap and leading-edge device operation				
g.	Abnormal/emergency – Rejected take-off (RTO)				
4.	CLIMB	BITD	FNPT I	FNPT II	FNPT II MCC
a.	Normal climb				
b.	One or more engines inoperative climb				
5.	CRUISE	BITD	FNPT I	FNPT II	FNPT II MCC
a.	Performance characteristics (speed vs. power)				
b.	High altitude handling acceptable (if applicable)				
c.	High Mach number handling (tuck/buffet) and recovery (if applicable)				
d.	High indicated airspeed (IAS) handling acceptable				
6.	MANOEUVRES	BITD	FNPT I	FNPT II	FNPT II MCC
a.	High AOA, approach to stalls, stall warning, buffet, and g-break (all configurations)				
b.	Turns with speed-brake/spoilers deployed (if applicable)				
c.	Normal and standard rate turns				
d.	In flight engine shutdown and restart (windmill assisted) found satisfactory.				
e.	Manoeuvring with one or more engines inoperative, as appropriate				
f.	Flight control systems failures, reconfiguration modes, manual reversion and associated handling				
7.	DESCENT	BITD	FNPT I	FNPT II	FNPT II MCC
a.	Normal				
b.	Max rate (clean and with speed-brake extended, etc)				
c.	With autopilot engaged				
8.	INSTRUMENT APPROACHES AND LANDING	BITD	FNPT I	FNPT II	FNPT II MCC
a.	Is the simulator set-up acceptable for thorough procedural instrument training?				
b.	Manual approach with/without flight director including landing				
c.	Autopilot/ auto-throttle coupled approach and manual landing				
d.	Manual approach to MDA/ DA and Go-Around all engines operating				
e.	Manual one engine out approach to MDA/ DA and Go-Around				
f.	Autopilot/auto-throttle coupled approach, one engine out to MDA/ DA and Go-Around				
g.	Approach and landing with minimum/standby electrical power				
h.	Non-precision NDB, VOR, VOR/DME, VORTAC, LOC				
i.	RNAV (GNSS)				
j.	ILS				
k.	Homing & Holding				
9.	VISUAL APPROACHES (SEGMENT) AND LANDINGS	BITD	FNPT I	FNPT II	FNPT II MCC
a.	Manoeuvring, normal approach and landing all engines operating with and without visual approach aid guidance				
b.	Approach and landing with one or more engines inoperative				
c.	Approach and landing with max crosswind component				
d.	Approach and landing with flight control system failures				
10.	MISSED APPROACH	BITD	FNPT I	FNPT II	FNPT II MCC
a.	All engines operating				

b.	One or more engines inoperative (if applicable)				
c.	With flight control systems failures, reconfiguration modes, manual reversion and for flight simulator – associated handling				
11. POST LANDING		BITD	FNPT I	FNPT II	FNPT II MCC
a.	Landing roll and taxi				
b.	Spoiler operation (if applicable)				
c.	Reverse thrust operation (if applicable)				
d.	Brake operation, to include auto-brake system where applicable				
12. ANY FLIGHT PHASE		BITD	FNPT I	FNPT II	FNPT II MCC
a.	Air conditioning and pressurisation (if applicable)				
b.	De-icing/anti-icing (if applicable)				
c.	Communications systems operations				
d.	Electrics operation				
e.	Fire and smoke detection and suppression (if applicable)				
f.	Fuel, oil, hydraulic and pneumatic systems operation and controls				
g.	Landing gear operation including emergency extension (if app)				
h.	Oxygen system operation (if applicable)				
i.	Powerplant operation realism				
j.	Autopilot and flight director operations				
k.	Navigation system correctness				
l.	Stall warning and/or stall symptoms				
m.	Engine shut down and parking – engine and systems operation				
n.	Parking brake operation				
13. VISUAL SYSTEM		BITD	FNPT I	FNPT II	FNPT II MCC
a.	Representative airport runways and taxiways				
b.	A visual system (night/dusk or day) capable of providing a field of view of a minimum of 45° horizontally and 30° vertically including adjustable cloud base and visibility				
c.	A means of recording visual response time				
d.	Visual ground segment (VGS)				
e.	Runway definition				
f.	Runway surface and markings				
g.	Runway lighting in use including runway edge and centreline lighting, visual approach aids and approach lighting of appropriate colours.				
h.	Instructor controls of – cloud base, cloud effects, cloud density, visibility in SM/KM and RVR in M/feet				
i.	Airport/aerodrome selection (Generic visual modelling)				
14. SOUND SYSTEM		BITD	FNPT I	FNPT II	FNPT II MCC
a.	Significant aeroplane noises perceptible to the pilot during normal operations – engine, flaps, gear, spoiler, thrust reverser comparable to the actual sounds				
b.	Significant engine/propeller noise perceptible to the pilot during normal operations				
15. SYSTEM RESPONSE TIME		BITD	FNPT I	FNPT II	FNPT II MCC
a.	Transport delay – pitch, roll and yaw -300 milliseconds or less after controller movement (FNPT I and BITD only the instrument response time applies)				
b.	Latency – take-off, cruise, and approach or landing -300 milliseconds after controller movement (FNPT I and BITD only the instrument response time applies)				

E. DE – BRIEF

FSTD Operator Representatives		
SACAA Representatives		
FSTD Subjective Performance:	Satisfactory	Unsatisfactory
FSTD Objective Performance:	Satisfactory	Unsatisfactory
FSTD Quality System:	Satisfactory	Unsatisfactory

F. RECOMMENDATION BY FSTD INSPECTOR

FSTD to be	RECOMMENDED	NOT RECOMMENDED
Conditions		
SIGNATURE OF PEL INSPECTOR	NAME IN BLOCK LETTERS	DATE

G. I WAS DE-BRIEFED ON THE INSPECTION AND READ THE COMMENTS BY THE PEL INSPECTOR

SIGNATURE OF INSPECTED ORGANISATION'S REPRESENTATIVE	NAME IN BLOCK LETTERS	DATE

H. DECISION BY MANAGER TRAINING

INITIAL	RECURRENT	UPGRADE	SPECIAL
of FSTD with registration	Z	P	-
is hereby	APPROVED	NOT APPROVED	

COMMENTS / RESTRICTIONS

SIGNATURE OF MANAGER: TRAINING	NAME IN BLOCK LETTERS	DATE