

**FULL FLIGHT SIMULATOR (FFS) LEVEL C/D UPRT CHECKLIST  
(FOR "FULL STALL UPRT")**

Initial Evaluation (New FSTD with UPRT)		Modification Evaluation (Addition of UPRT to existing device)	
Date of inspection / evaluation			
Name of Organisation/ ATO			
Trade name (as applicable)			
SACAA ATO/AOC Reference #			
Base of operation			
Postal address		Postal code	
Telephone number		Fax number	
Cellular phone number		E-mail	
Chief Simulator Instructor			
Chief Simulator Technician			
<b>SIMULATOR INFORMATION</b>			
<b>SIMULATOR REGISTRATION</b>	<b>Z</b>	<b>F</b>	<b>-</b>
Qualification Level	<b>G</b>	<b>A</b>	<b>B</b>
Manufacturer			
Serial Number			
ICAO Type Designator & Variant			
Simulator Computer			
Visual System <i>(Degrees FOV)</i>			
Motion System <i>(DOF)</i>			
RSA Airfields <i>(Specific Modelling)</i>			
Entry into Service RSA		First Entered Service	
Engine Fit			
Flight Management System			
Avionics Suite			
If Previously Qualified under Foreign Authority <i>(For initial RSA only)</i>	Authority Name		
	Qualification Level		
	Certificate #		
	Expiry date		
	Original Qualification Standard/ Doc/ Ref		
<b>INSTRUCTIONS, DEFINITIONS AND ABBREVIATIONS</b>			
<ul style="list-style-type: none"> <li>√ - shall mean fully compliant (FC). [Yes]</li> <li>X - shall mean not compliant (NC). [No]</li> <li>N/A - shall mean that the requirement is not relevant to the FSTD. (N/A)</li> <li>- - shall mean Not Reviewed (NR). [Not Checked]</li> </ul>			
<b>DESCRIPTION OF FINDINGS/ REMARKS/ COMMENTS</b>			
<ul style="list-style-type: none"> <li><b>LEVEL 1 A</b> 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.</li> </ul>			

- 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:
  - 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.

<b>A. CAA RESPONSIBILITY: PRE-INSPECTION PREPARATION</b>		<b>N/A</b>	<b>FC</b>	<b>NC</b>	<b>Note</b>
1.	<b>Initial including UPRT:</b> Has the organisation formally applied for the registration and inspection of this simulator?				
2.	<b>Modification to include UPRT:</b> Has the organisation formally applied for the modification evaluation to include UPRT for 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 Preventative maintenance program for the increased stresses that would be put on the device?				
<b>B. ON-SITE INSPECTION</b>					
<b>1. INFRASTRUCTURE</b>		<b>N/A</b>	<b>FC</b>	<b>NC</b>	<b>Note</b>
a.	FSTD facility fire extinguishers				
b.	FSTD facility first aid kit				
c.	Building Emergency Evacuation markings				
<b>2. DOCUMENTATION – Simulator</b>		<b>N/A</b>	<b>FC</b>	<b>NC</b>	<b>Note</b>
a.	Is the presented MQTG file updated to include the following:				
1.	New QTG test required for UPRT?				
2.	Statements of compliance (SOC) for UPRT included in the MQTG's?				
3.	List of effective pages updated to indicate changes?				
4.	Revision / Amendment page updated?				
b.	Does the validation data define the three envelope subdivisions as below:				
5.	Flight test validation region?				
6.	Wind tunnel and/or analytical region?				
		<b>N/A</b>	<b>FC</b>	<b>NC</b>	<b>Note</b>
7.	Extrapolation region?				

a.	IOS training amended to include UPRT functionality				
b.	Simulator/instructor station operating manual amended to include operation of UPRT functionality?				
<b>Check version / edition for validity of:</b>		<b>Revision</b>			<b>Note</b>
c.	Simulation Configuration Files for latest/ relevant version				
d.	Airplane Flight Manual				
e.	Airplane Performance Manual				
f.	Normal/ emergency and abnormal checklists				
g.	Quick Reference Handbook (QRH)				
h.	Navigation Database Date (current within 28-day update cycle)				
<b>3. FSTD EXTERNAL CHECKS</b>		<b>N/A</b>	<b>FC</b>	<b>NC</b>	<b>Note</b>
a.	Are the safety zone markings around the simulator clearly visible to ensure safety while in operation? (Larger and faster motion movements from UPRT functionality expected)				
b.	Appearance and Cleanliness				
c.	Stairway/Access Bridge				
d.	Emergency Rope Ladder				
e.	"Motion On"/ "Flight In Progress" Lights				
f.	FSTD Surroundings emergency exit doors for correct operation.				
g.	Escape routes and marking.				
h.	Validity, markings and location of First Aid Kits.				
i.	All Fire Extinguishers for location, Expiry Date and Correct Type.				
j.	Hydraulic Room for Oil Leaks and Fire hazards.				
k.	Electrical Room for Hazards and Cleanliness.				

<b>4. SIMULATOR INTERNAL CHECKS</b>		<b>N/A</b>	<b>FC</b>	<b>NC</b>	<b>Note</b>
a.	Cleaning/Disinfecting Towels				
b.	Aircraft Escape Hatches/ Ropes				
c.	Fire Extinguishers ( <i>Check Inspection Dates</i> )				
d.	Crash Axe				
e.	FSTD EMERGENCY STOP Buttons				

<b>5. INITIAL SETUP CONDITIONS</b> (Please enter weights in either kg or lbs)					
<b>Airport</b>		<b>R/W</b>		<b>CG</b>	
<b>QNH</b>		<b>OAT (°C)</b>		<b>Wind (DDD/VV)</b>	
<b>ZFW</b>		<b>Fuel</b>		<b>GW</b>	

<b>6. UPRT STANDARD PROVISIONS (IOS UPRT tool display static)</b>		<b>N/A</b>	<b>FC</b>	<b>NC</b>	<b>Note</b>
a.	three basic elements that are required for qualifying an FSTD for UPRT manoeuvres:				
1.	FSTD training envelope				
2.	Instructor feedback – IOS tools to properly evaluate the trainee's performance in accomplishing a UPRT task				
3.	Upset scenarios - specific guidance must be available to the instructor, e.g. on the IOS or manual, which describes how the upset scenario is driven along with any malfunction or degradation in FSTD functionality required to stimulate the upset.				
b.	IOS feedback mechanism FSTD validation envelope – indicated on IOS:				
1.	Flight-test-validated region				
2.	Wind tunnel and/or analytical region				
3.	Extrapolated region				

4.	Aeroplane operational limits – Does the IOS display:				
5.	Airspeed and airspeed limits, including the stall speed and maximum operating limit airspeed (VMO)/maximum operating Mach (MMO)				
6.	Load factor and operational load factor limits				
7.	Angle of attack and stall identification angle of attack				
<b>7. UPRT STANDARD PROVISIONS (IOS UPRT tool display for UPRT upsets, during and after manoeuvres)</b>		<b>N/A</b>	<b>FC</b>	<b>NC</b>	<b>Note</b>
a.	Does the IOS UPRT tool display (Pilot inputs): ?				
1.	Pitch				
2.	Roll				
3.	Rudder pedal				
4.	Throttles				
5.	Flaps				
6.	Speed brake/spoilers				
b.	Does the IOS UPRT Tool display PFD parameters as per below (for UPRT Manoeuvres): ?				
1.	Pitch attitude				
2.	Roll attitude				
3.	Turn/sideslip				
4.	Indicated airspeed				
5.	Stall warning speed/stall buffet speed				
6.	VMO/MMO				
7.	Altitude				
8.	Rate of climb				
9.	Autopilot status				
10.	Auto-throttle status (If installed in A/C)				
c.	Does the IOS UPRT Tool display angle of attack during upset manoeuvre?				
d.	Does the IOS UPRT Tool display angle of sideslip during upset manoeuvre?				
e.	Does the IOS UPRT Tool display G-loading during upset manoeuvre?				
f.	Aeroplane operational limits – Does the IOS display:				
1.	Airspeed and airspeed limits, including the stall speed and maximum operating limit airspeed (VMO)/maximum operating Mach (MMO)				
2.	Load factor and operational load factor limits				
3.	Angle of attack and stall identification angle of attack				

### C. NOTES ON ITEM REMARKS

Kindly number notes in columns provided on previous pages and use numbers on this page for cross reference. Make copies of page 14 if additional space is required.

NUMBER	NOTE




<b>D. DE – BRIEF</b>					
FSTD Operator Representatives					
SACAA Representatives					
FSTD Subjective Performance:		Satisfactory		Unsatisfactory	
FSTD Objective Performance:		Satisfactory		Unsatisfactory	
FSTD Quality System:		Satisfactory		Unsatisfactory	
<b>E. RECOMMENDATION BY FSTD INSPECTOR</b>					
FSTD (with UPRT) to be		RECOMMENDED		NOT RECOMMENDED	
Conditions					
<b>SIGNATURE OF PEL INSPECTOR</b>		<b>NAME IN BLOCK LETTERS</b>		<b>DATE</b>	
<b>F. I WAS DE-BRIEFED ON THE INSPECTION AND READ THE COMMENTS BY THE PEL INSPECTOR</b>					
<b>SIGNATURE OF INSPECTED ORGANISATION'S REPRESENTATIVE</b>		<b>NAME IN BLOCK LETTERS</b>		<b>DATE</b>	
<b>G. DECISION BY MANAGER TRAINING</b>					
INITIAL		RECURRENT		UPGRADE	
of FSTD (with UPRT) with registration		Z	P	-	
is hereby	<b>APPROVED</b>		<b>NOT APPROVED</b>		
<b>COMMENTS / RESTRICTIONS</b>					
<b>SIGNATURE OF MANAGER: TRAINING</b>		<b>NAME IN BLOCK LETTERS</b>		<b>DATE</b>	