

3-3 Subjective Tests

Subjective tests fly-outs

This section provides material for the performance of subjective tests.

All subjective tests listed in CS-FSTD (A) shall be covered by the operator with regards to AMC1.CS.FSTD(A).300.(9).(ii) before the initial evaluation and for recurrent evaluations to ensure the qualification of the device and its continuation.

Results of fly-outs shall be presented to Authorities during initial and recurrent evaluations.

Summary table: The table summarizes the fly-outs in which the tests shall be performed. One test can be found in one or more fly-outs. If a test is not applicable to a fly-out, the box is colored in grey. Some tests are to be performed during any flight phase (for example, sound system tests). After the execution of all 4 fly-outs, the operator will be able to tick the last box of the following table to attest that the test is satisfactory during all the fly-outs.

SUMMARY TABLE

Test	Fly-outs				Test satisfactory on flight model:
	1 st	2 nd	3 rd	4 th	MPG10
a.1.a: Preflight	x	x	x	x	<input type="checkbox"/>
b.1.a: Engine(s) normal start	x	x	x	x	<input type="checkbox"/>
b.3.a: Taxi - Thrust response	x				<input type="checkbox"/>

During fly-outs, Operator shall test all the 5 declared airports. A table figures at the end of the summary table to follow the progress of tests.

Declared airports:	Tested during fly-out n°:	Test satisfactory
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

Fly-outs: 4 fly-outs are provided to cover all the scope of tests.

Before each fly-out, a table summarizes flight conditions and aircraft set-up. Aircraft and meteorological parameters are monitored through IOS. Operator is recommended to test various weight and center of gravity position. Also, flight conditions shall differ from one fly-out to another. In addition, please note that some data are imposed; for example QNH in order to cover various meteorological conditions or arrival facilities to perform selected approaches.

The operator is free to choose departure airports. The arrival airports must be chosen with regards to their approach facilities, in order to perform approaches imposed by Subjective Tests. Please note that all the 5 approved airports shall be covered. Refer to the table mentioned previously.

Tests shall be performed during different day times: Dawn, day, night and twilight... Time box should be filled.

Several meteorological conditions shall be tested with various temperature, QNH and MTO (to be fill in T°, QNH and MTO). Icing, rain, snow, hail... shall be tested.

- 2ND FLY-OUT -

AIRCRAFT CONFIGURATION:					
Gross weight:			CoG position:		
FLIGHT TEST CONDITIONS:					
Departure:		Cruise:		Arrival:	
From:		Altitude:	Medium ¹	To:	
Time:		Time:		Time:	Night
T°:		T°:		T°:	
QNH:		QNH:		QNH:	
MTO:	Crosswind	MTO:		MTO:	Crosswind
Facilities:		Others:		Facilities:	ILS equipped

Once a test is found satisfactory, tick the appropriate box in the fly-out.
Some tests are to be performed during any flight phase (for example, sound system tests). They are listed at the end of each fly-out.

An approval box figures at the end of each fly-out. Operator should sign it before the initial evaluation.

AUTHORITY'S APPROVAL (DATE, SIGNATURE & COMMENTS)	OPERATOR'S APPROVAL (DATE, SIGNATURE & COMMENTS)
N/A	Test

If the option "Upset Prevention Training" is installed on your device, you shall also train preset scenarios during cruise.

For any question or suggestion, please contact certification@alsim.com.

SUBJECTIVE TESTS

SUMMARY TABLE

Test	Fly-outs				Test satisfactory on flight model:
	1 st	2 nd	3 rd	4 th	A42M2
a.1.a: Preflight	x	x	x	x	<input checked="" type="checkbox"/>
b.1.a: Engine(s) normal start	x	x	x	x	<input checked="" type="checkbox"/>
b.3.a: Taxi - Thrust response	x				<input checked="" type="checkbox"/>
b.3.b: Taxi - Power lever friction	x				<input checked="" type="checkbox"/>
b.3.c: Taxi - Ground handling	x				<input checked="" type="checkbox"/>
b.3.e: Taxi - Brake operation	x				<input checked="" type="checkbox"/>
c.1.a: Takeoff - Aeroplane/engine parameter relationships	x				<input checked="" type="checkbox"/>
c.1.c: Takeoff - Acceleration characteristics	x			x	<input checked="" type="checkbox"/>
c.1.d: Takeoff - Nose wheel and rudder steering	x				<input type="checkbox"/>
c.1.e: Takeoff - Crosswind		x			<input checked="" type="checkbox"/> 10kts x-wind
c.1.g: Takeoff - Low visibility take-off			x		<input checked="" type="checkbox"/>
c.1.h: Takeoff - Landing gear, wing	x	x	x	x	<input checked="" type="checkbox"/>
d.1: Climb - Normal	x	x	x	x	<input checked="" type="checkbox"/>
d.2: Climb - One or more engines inoperative		x		x	<input checked="" type="checkbox"/>
e.1: Cruise - Performance characteristics	x			x	<input checked="" type="checkbox"/>
e.2: Cruise - High altitude handling			x		<input checked="" type="checkbox"/>
e.3: Cruise - High Mach number handling			x		<input checked="" type="checkbox"/> N/A
e.5: Cruise - High IAS handling		x			<input checked="" type="checkbox"/>

Test	Fly-outs				Test satisfactory on flight model:
	1 st	2 nd	3 rd	4 th	A42M2
f.1: Manoeuvres - Stall configuration			x		<input checked="" type="checkbox"/>
f.3: Manoeuvres - Turns with/without speed brake/spoilers deployed	x				<input checked="" type="checkbox"/>
f.8: Manoeuvres - Manoeuvring with one or more engines inoperative				x	<input checked="" type="checkbox"/>
g.1: Descent - Normal	x	x		x	<input checked="" type="checkbox"/>
g.2: Descent - Maximum rate			x		<input checked="" type="checkbox"/>
h.1.a: Instrument Approaches and Landing - PAR	x				<input checked="" type="checkbox"/>
h.1.b.A: Instrument Approaches and Landing - Manual approach with/without director including landing	x				<input checked="" type="checkbox"/>
h.1.b.C: Instrument Approaches and Landing - Manual approach to DH and G/A all engines	x				<input checked="" type="checkbox"/>
h.1.b.D: Instrument Approaches and Landing - Manual one engine inoperative approach to DH and G/A		x			SE APP NOT REP OF ACTUAL A/C <input checked="" type="checkbox"/>
h.2.a: Non precision approach - NDB	x				<input checked="" type="checkbox"/>
h.2.b: Non precision approach - VOR, VOR/DME, VOR/TAC				x	<input checked="" type="checkbox"/>
h.2.d: Non precision approach - ILS LLZ (LOC), LLZ (LOC)/BC				x	<input checked="" type="checkbox"/>
i.1: Visual Approaches and landing - Manoeuvring, normal approach and landing all engines operating with and without visual approach aid guidance		x			<input checked="" type="checkbox"/>

Test	Fly-outs				Test satisfactory on flight model:
	1 st	2 nd	3 rd	4 th	A42M2
i.2: Visual Approaches (segment) and landing - Approach and landing with one or more engines inoperative		x			<input checked="" type="checkbox"/>
i.4: Visual Approaches and landing - Approach and landing with crosswind		x			<input checked="" type="checkbox"/>
j.1: Missed approach - All engines				x	<input checked="" type="checkbox"/>
j.2: Missed approach - One or more engine(s) out		x			<input checked="" type="checkbox"/>
k.1.f: Landing roll and taxi - Brake operation, to include autobraking system when applicable	x	x	x	x	<input checked="" type="checkbox"/>
l.1.b: Aeroplane operation - De-icing/anti-icing			x		<input checked="" type="checkbox"/>
l.1.d: Aeroplane operation - Communications	x	x	x	x	<input checked="" type="checkbox"/>
l.1.e: Aeroplane operation - Electrical	x	x	x	x	<input checked="" type="checkbox"/>
l.1.h: Aeroplane operation - Fuel and oil, hydraulic and pneumatic	x	x	x	x	<input checked="" type="checkbox"/>
l.1.i: Aeroplane operation - Landing gear	x	x	x	x	<input checked="" type="checkbox"/>
l.1.k: Aeroplane operation - Powerplant	x	x	x	x	<input checked="" type="checkbox"/>
l.1.s: Aeroplane operation - Navigation systems	x	x	x	x	<input checked="" type="checkbox"/>
l.1.t: Aeroplane operation - Stall warning / avoidance			x		<input checked="" type="checkbox"/>
l.2.a: Airborne procedures - Holding	x				<input checked="" type="checkbox"/>
l.3.a: Engine shutdown and parking - Engine and systems operation	x	x	x	x	<input checked="" type="checkbox"/>
l.3.b: Engine shutdown and parking - Parking brake operation	x	x	x	x	<input checked="" type="checkbox"/>
l.4: Other as appropriate including effects of wind		x			<input checked="" type="checkbox"/>

Test	Fly-outs				Test satisfactory on flight model:
	1 st	2 nd	3 rd	4 th	A42M2
m.2.a: Representative airport runways and taxiways				x	<input checked="" type="checkbox"/>
m.2.b: Runway definition (3km)			x		<input checked="" type="checkbox"/>
m.2.c: Runway surface and markings (3km)			x		<input checked="" type="checkbox"/>
m.2.d: Lighting for the runway in use			x		<input checked="" type="checkbox"/>
m.4.a: Visual feature recognition - runway (8km)				x	<input checked="" type="checkbox"/>
m.4.c: Visual feature recognition - runway (5km)		x			<input checked="" type="checkbox"/>
m.4.d: Visual feature recognition - taxiway (5km)		x			<input checked="" type="checkbox"/>
m.4.e: Visual feature recognition - runway (3km)			x		<input checked="" type="checkbox"/>
m.4.f: Visual feature recognition	x	x	x	x	<input checked="" type="checkbox"/>
m.6.a: Correlation with aeroplane and associated equipment	x	x	x	x	<input checked="" type="checkbox"/>
m.6.b: Visual system – take-off and landing	x				<input checked="" type="checkbox"/>
m.6.c: Visual system – environment	x	x	x	x	<input checked="" type="checkbox"/>
m.9.a: IOS – Environmental effects	x	x	x	x	<input checked="" type="checkbox"/>
m.9.b: IOS – Airport/aerodrome selection	x	x	x	x	<input checked="" type="checkbox"/>
m.9.c: IOS – Airport/aerodrome lighting	x	x	x	x	<input checked="" type="checkbox"/>
o.1.c: Sound Systems – Aeroplane noises	x	x	x	x	<input checked="" type="checkbox"/> <i>SPAKERS 1/5 sometimes</i>
o.1.f: Sound Systems – Engine/propeller	x	x	x	x	<input checked="" type="checkbox"/>

Tests regarding the 5 declared airports:

Declared airports:	Tested during fly-out n°:	Test satisfactory
EINN	Q1 Q3	<input checked="" type="checkbox"/>
EGLL		<input checked="" type="checkbox"/>
ETOW	Q3 Q2	<input checked="" type="checkbox"/>
EGAA (EICK),	Q4	<input checked="" type="checkbox"/>
EWTF	Q1 Q4	<input checked="" type="checkbox"/>

Q2

CAA recommendation - 19-07-2023

High level summary of Function & Subjective fly outs:-

The subjective flight test had been completed on quarterly basis.

It was recommended by the FI that a greater variation in the environmental conditions QNH be adopted in the flyouts (e.g., QNH 990 to 1030 mb, OAT low and high temperature range)

The following Flyouts should have a varied range of environmental conditions to test various aspects of the simulator.