ICAO EUR/MID Radio Navigation Symposium

Antalya, Turkiye
(6-8 February 2024)

Use of Simulator in IFP Validation

By. Reda ElMadbouly

IFP Chief Designer – United ATS

Why IFP Validation Simulator is needed ?

❖ **For Complex or special procedures where simulator evaluation is desired.**

❖ **For Required navigation performance authorization required (RNP AR) IFP (must always undergo simulator evaluation).**

ICAO EUR/MID Radio Navigation Symposium, Antalya, 6-8 February 2024

Why IFP Validation Simulator is needed ?

❖ **For Non-Complex or Special Flight Procedures to Reduce the Flight Validation Trails and Number of Flight validation Hours.**

ICAO EUR/MID Radio Navigation Symposium, Antalya, 6-8 February 2024
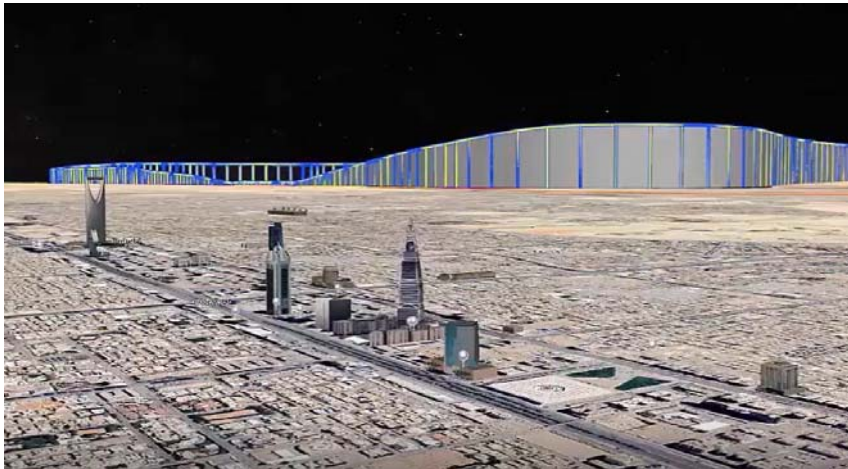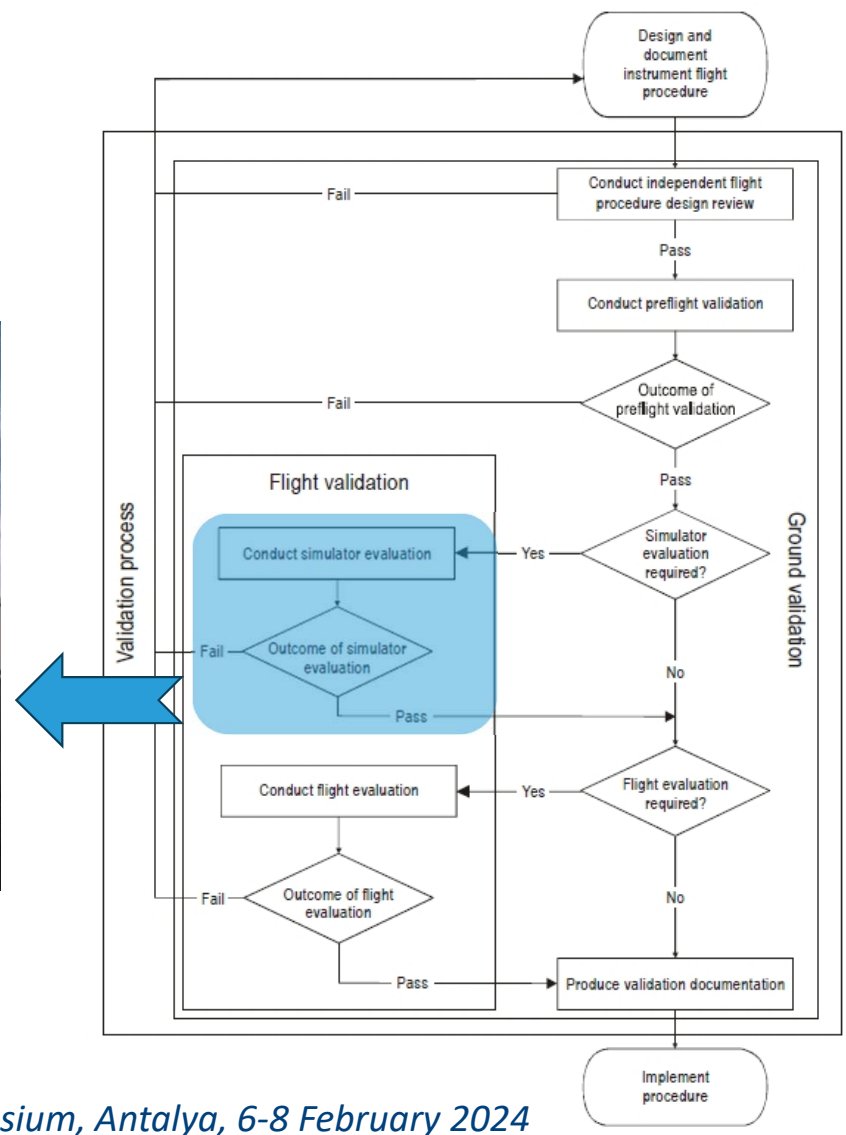
Why IFP Validation Simulator is needed ?

❖ **For IFP Conceptual Design presentation to involved Stake holders.**

ICAO EUR/MID Radio Navigation Symposium, Antalya, 6-8 February 2024

IFP Validation Process

ICAO EUR/MID Radio Navigation Symposium, Antalya, 6-8 February 2024
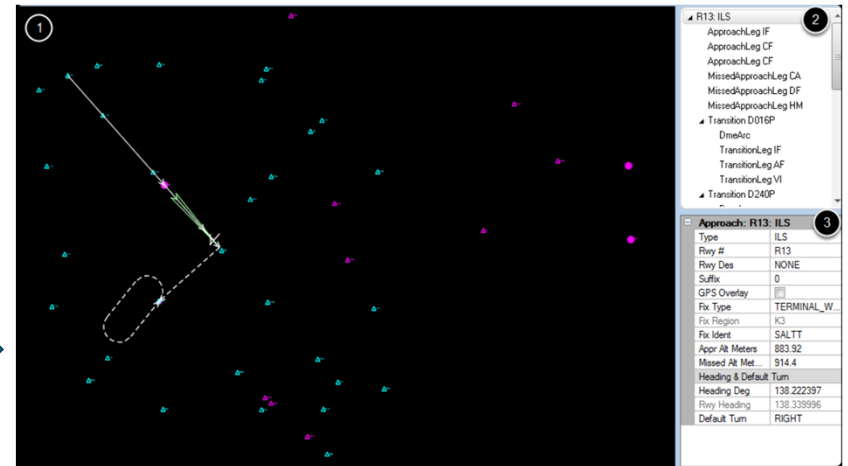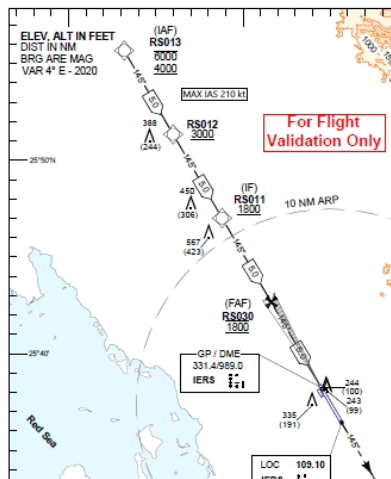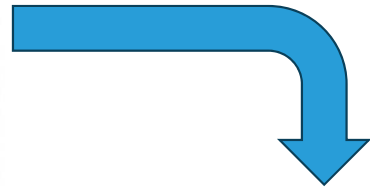
General Concept of Simulator Evaluation

Simulator evaluation must be accomplished by a qualified and experienced FVP, certified or approved by the State.

Provide an initial evaluation of database coding, flyability and Provide feedback to the procedure designers,
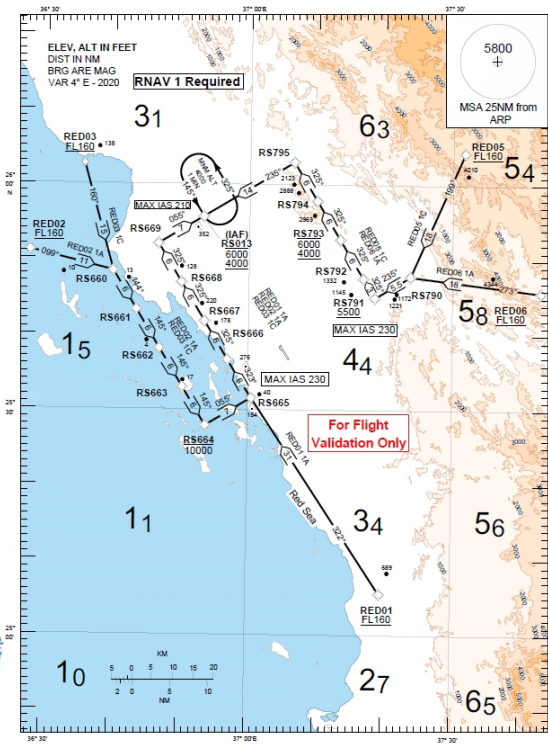
ICAO EUR/MID Radio Navigation Symposium, Antalya, 6-8 February 2024
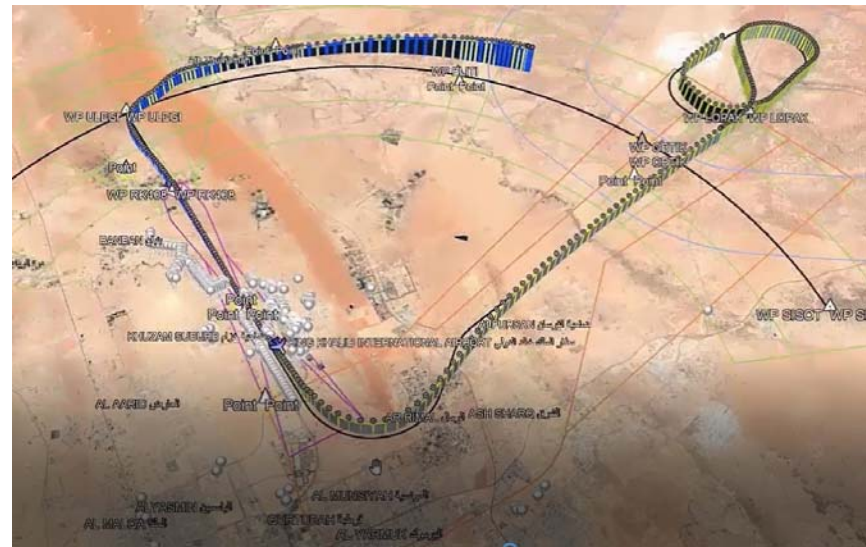
IFP Navigation Data base Coding

Serial Number	Path Descriptor	Waypoint identifier	Fly-over	Course M° (T°)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed Limit (KT)	VPA/TCH	Navigation Specification
010	IF	RS102	-	-	-	-	-	+4000	-210	-	RNP APCH
020	TF	RS101	-	325 (328.9)	-4.2	4.0	-	+2000	-	-	RNP APCH
010	IF	RS101	-	-	-	-	-	+2000	-	-	RNP APCH
020	TF	RS100	-	325 (328.9)	-4.2	5.0	-	@2000	-	-	RNP APCH
030	TF	RW33R	Y	325 (328.9)	-4.2	5.6	-	@214	-	3.0/50	RNP APCH
040	VA	-	-	325 (328.9)	-4.2	-	-	+900	-210	-	RNP APCH
050	DF	RS200	-	-	-4.2	-	R	-	-210	-	RNP APCH
060	TF	RS700	-	088 (092.5)	-4.2	9.4	-	-	-210	-	RNP APCH
070	TF	RS409	-	134 (138.6)	-4.2	9.8	-	@4000	-210	-	RNP APCH
080	TF	RS316	-	188 (192.5)	-4.2	14.0	-	@4000	-210	-	RNP APCH
			RS409 Holding								
010	HM	RS409	-	134 (138.2)	-4.2	1 min	L	@4000	-210	-	RNP APCH
			RS102 Holding								
010	HM	RS102	-	325 (328.9)	-4.2	1 min	L	+4000	-210	-	RNP APCH

IFP Navigation Data base Coding

ICAO EUR/MID Radio Navigation Symposium, Antalya, 6-8 February 2024

Simulate, Record, and Report

ICAO EUR/MID Radio Navigation Symposium, Antalya, 6-8 February 2024

Thank You!