4.0 GROUND MANEUVERING

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4.6 Runway Holding Bay

4.0 GROUND MANEUVERING

4.1 General Information

This section provides airplane turning capability and maneuvering characteristics.

For ease of presentation, these data have been determined from the theoretical limits imposed by the geometry of the aircraft, and where noted, provide for a normal allowance for tire slippage. As such, they reflect the turning capability of the aircraft in favorable operating circumstances. These data should be used only as guidelines for the method of determination of such parameters and for the maneuvering characteristics of this aircraft.

In the ground operating mode, varying airline practices may demand that more conservative turning procedures be adopted to avoid excessive tire wear and reduce possible maintenance problems. Airline operating procedures will vary in the level of performance over a wide range of operating circumstances throughout the world. Variations from standard aircraft operating patterns may be necessary to satisfy physical constraints within the maneuvering area, such as adverse grades, limited area, or high risk of jet blast damage. For these reasons, ground maneuvering requirements should be coordinated with the using airlines prior to layout planning.

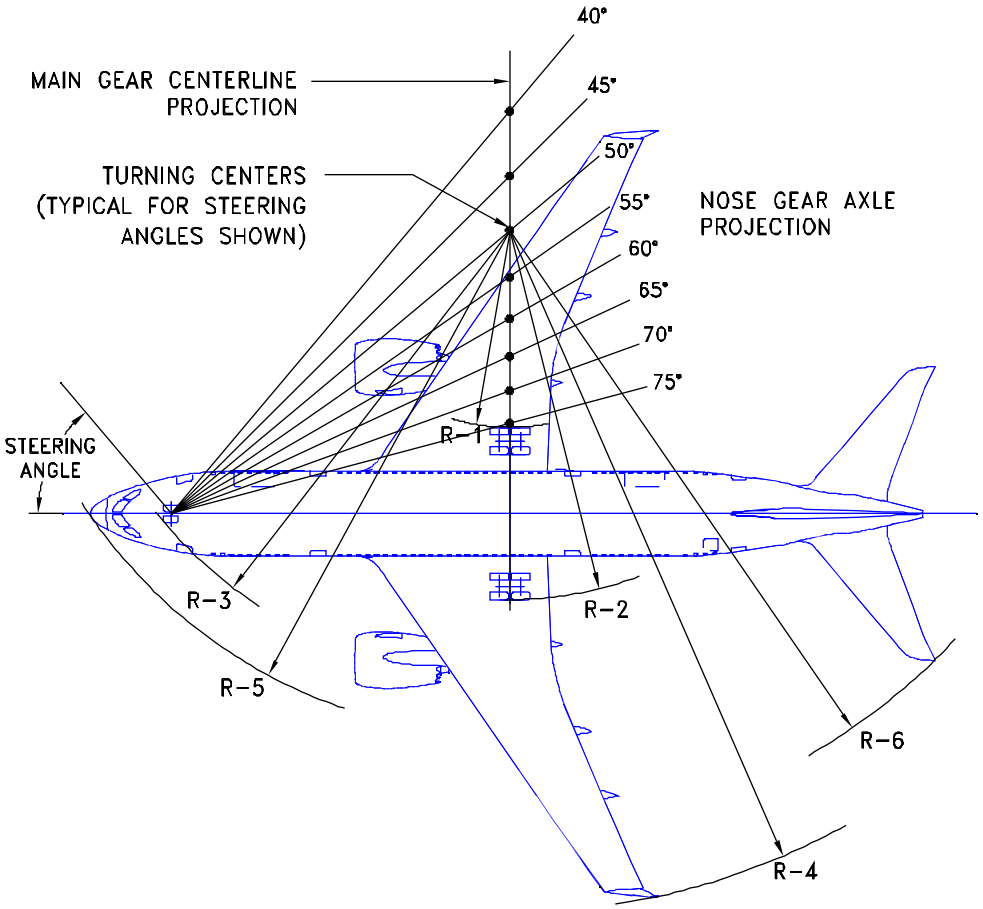
Section 4.2 shows turning radii for various nose gear steering angles. Radii for the main and nose gears are measured from the turn center to the outside of the tire.

Section 4.3 provides data on minimum width of pavement required for 180^{o} turn.

Section 4.4 shows the pilot's visibility from the cockpit and the limits of ambinocular vision through the windows. Ambinocular vision is defined as the total field of vision seen simultaneously by both eyes.

Section 4.5 shows approximate wheel paths of a 787 on runway to taxiway, and taxiway to taxiway turns.

Section 4.6 illustrates a typical runway holding bay configuration.

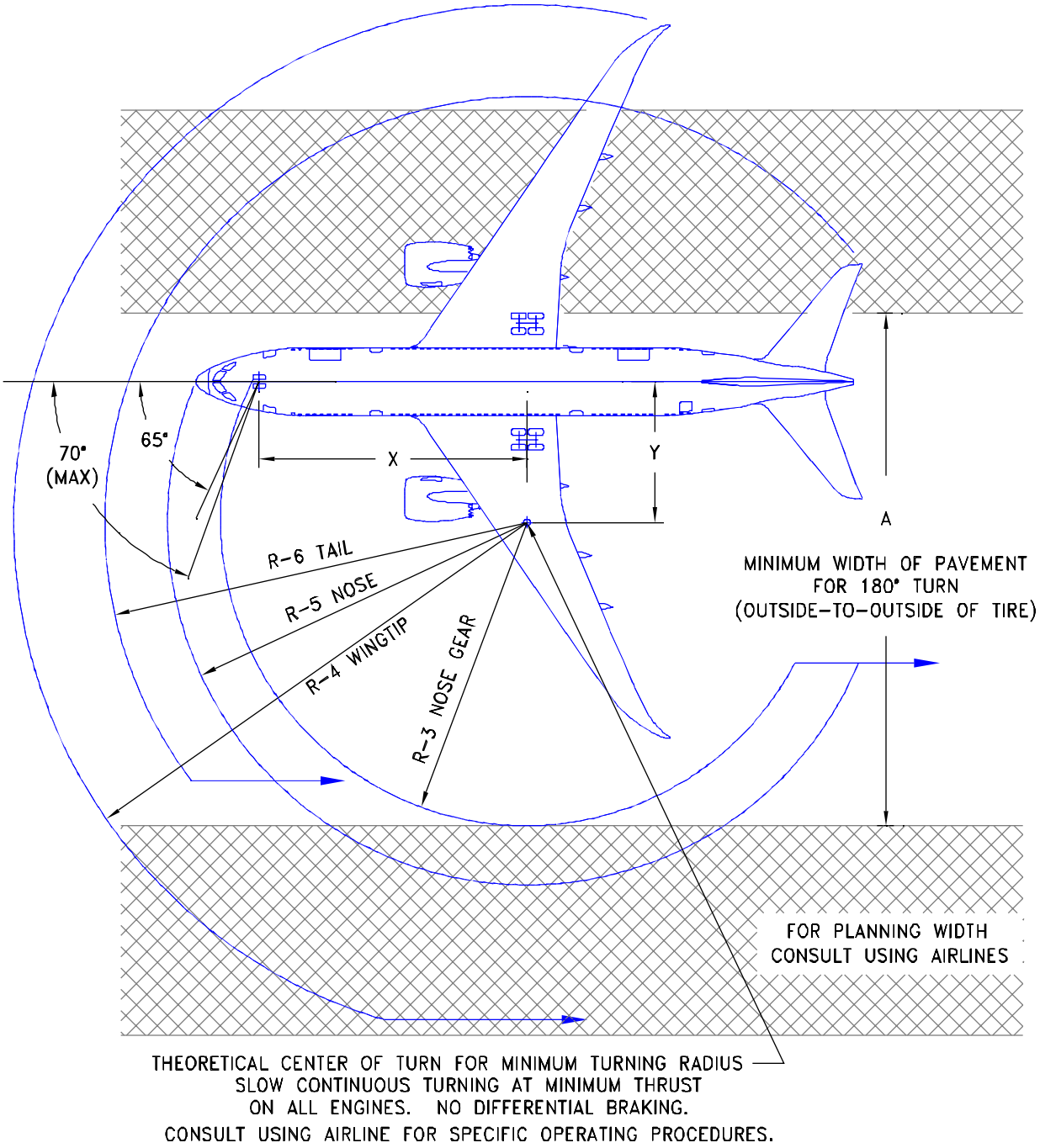


NOTES: * ACTUAL OPERATING TURNING RADII MAY BE GREATER THAN SHOWN.
* CONSULT WITH AIRLINE FOR SPECIFIC OPERATING PROCEDURE

STEERING ANGLE (DEG)	R-1 INNER GEAR		R-2 OUTER GEAR		R-3 NOSE GEAR		R-4 WING TIP		R-5 NOSE		R-6 TAIL	
	FT	M	FT	M	FT	M	FT	M	FT	M	FT	M
30	110.5	33.7	148.6	45.3	151.4	46.2	231.6	70.6	160.1	48.5	187.1	57.0
35	87.7	26.7	125.8	38.4	132.2	40.3	209.2	63.8	142.0	43.1	167.8	51.1
40	70.1	21.4	108.2	33.0	118.2	36.0	191.9	58.5	129.0	39.1	153.4	46.8
45	55.7	17.0	93.8	28.6	107.6	32.8	177.9	54.2	119.4	36.3	142.3	43.4
50	43.7	13.3	81.8	24.9	99.5	30.3	166.2	50.7	112.1	34.1	133.5	40.7
55	33.3	10.2	71.4	21.8	93.2	28.4	156.1	47.6	106.5	32.4	126.3	38.5
60	24.1	7.4	62.2	19.0	88.2	26.9	147.3	44.9	102.2	31.1	120.3	36.7
65	15.8	4.8	53.9	16.4	84.4	25.7	139.3	42.5	99.0	30.1	115.3	35.1
70	8.2	2.5	46.3	14.1	81.5	24.8	132.0	40.2	96.5	29.4	111.0	33.8

4.2.1 TURNING RADII - NO SLIP ANGLE

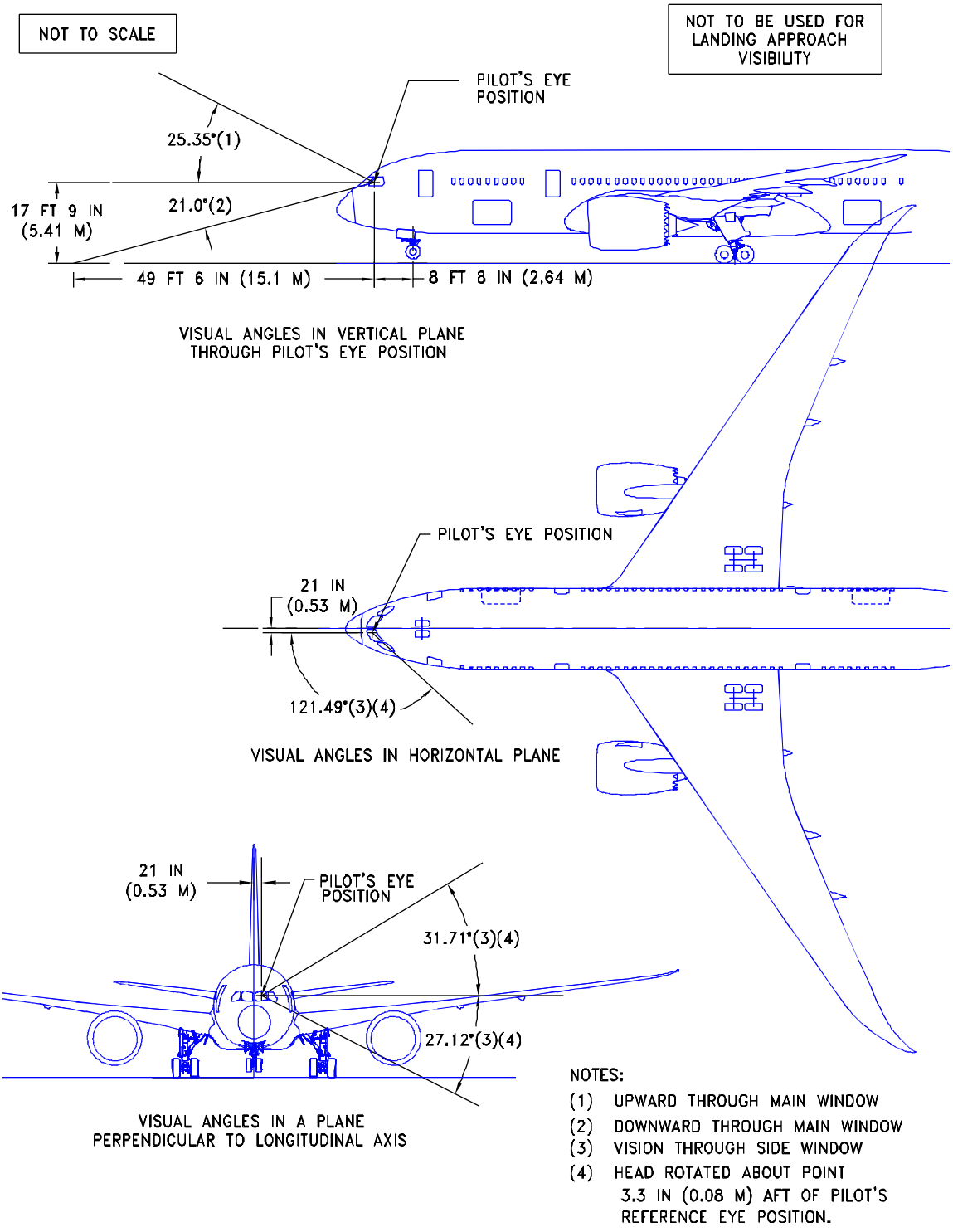
MODEL 787-8



MODEL	EFFECTIVE STEERING ANGLE (DEG)	X		Y		A		R3		R4		R5		R6	
		FT	M	FT	M	FT	M	FT	M	FT	M	FT	M	FT	M
787-8	65	74.8	22.8	34.9	10.6	138.4	42.2	84.7	25.7	139.3	42.5	99.0	30.1	115.3	35.1

4.3 CLEARANCE RADII

MODEL 787-8

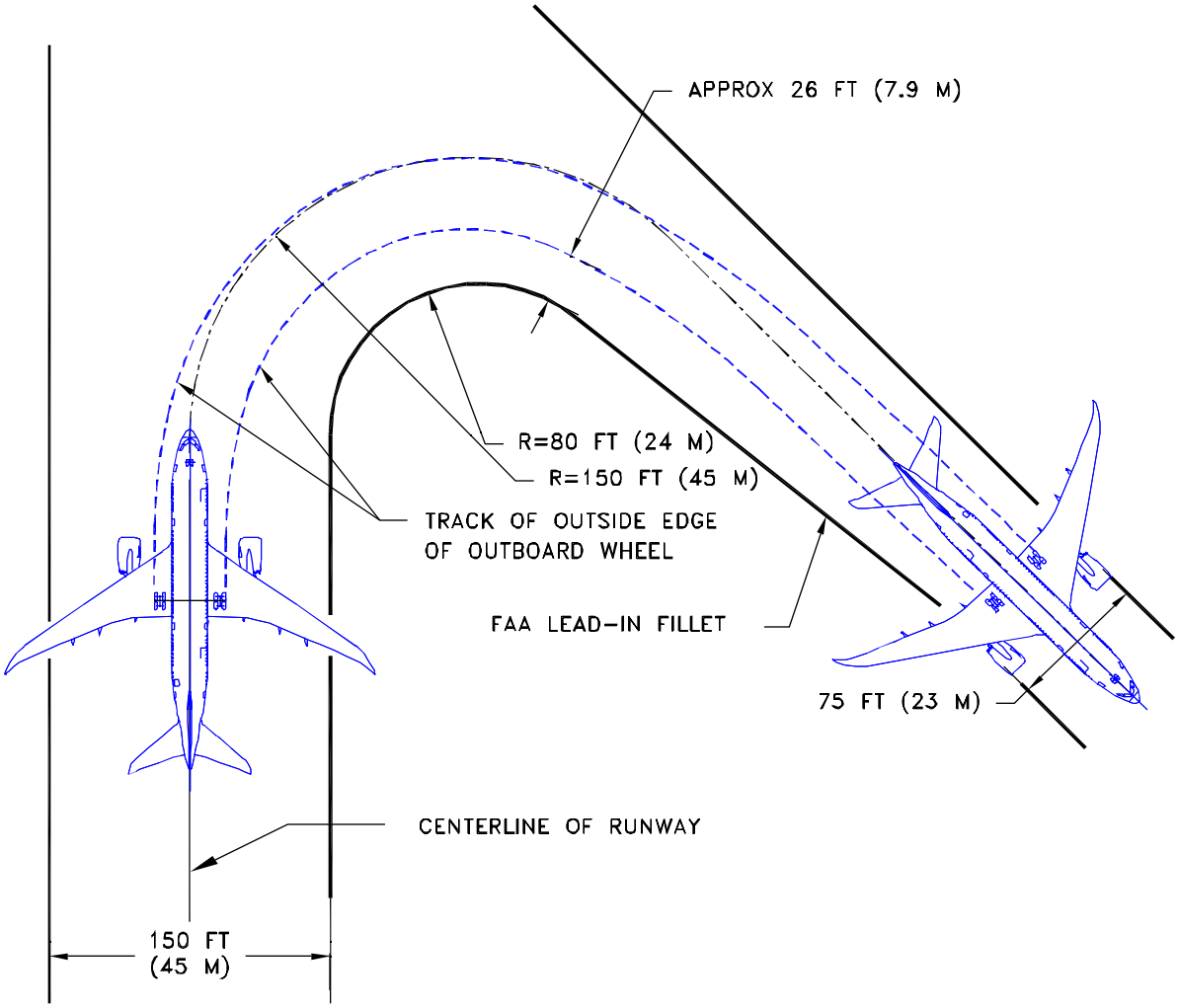


4.4 VISIBILITY FROM COCKPIT IN STATIC POSITION

MODEL 787-8

NOTE

BEFORE DETERMINING THE SIZE OF THE INTERSECTION FILLET, CHECK WITH THE AIRLINES REGARDING THE OPERATING PROCEDURES THAT THEY USE AND THE AIRCRAFT TYPES THAT ARE EXPECTED TO SERVE THE AIRPORT



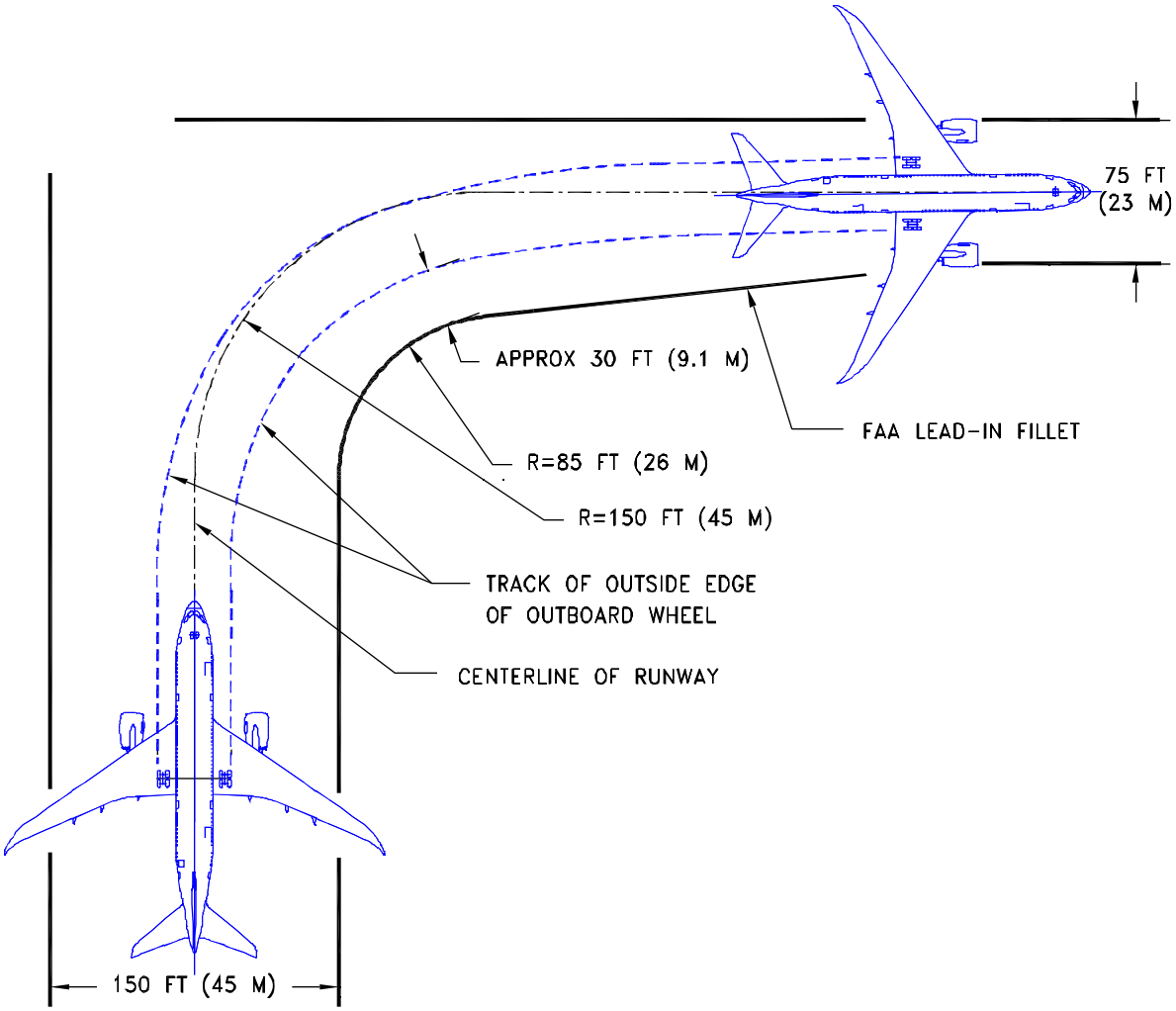
NOSE GEAR TRACKS
CENTERLINE OF TURNS

4.5.1 RUNWAY AND TAXIWAY TURNPATHS - RUNWAY-TO-TAXIWAY, MORE THAN 90-DEGREE TURN

MODEL 787-8

NOTE

BEFORE DETERMINING THE SIZE OF THE INTERSECTION FILLET, CHECK WITH THE AIRLINES REGARDING THE OPERATING PROCEDURES THAT THEY USE AND THE AIRCRAFT TYPES THAT ARE EXPECTED TO SERVE THE AIRPORT



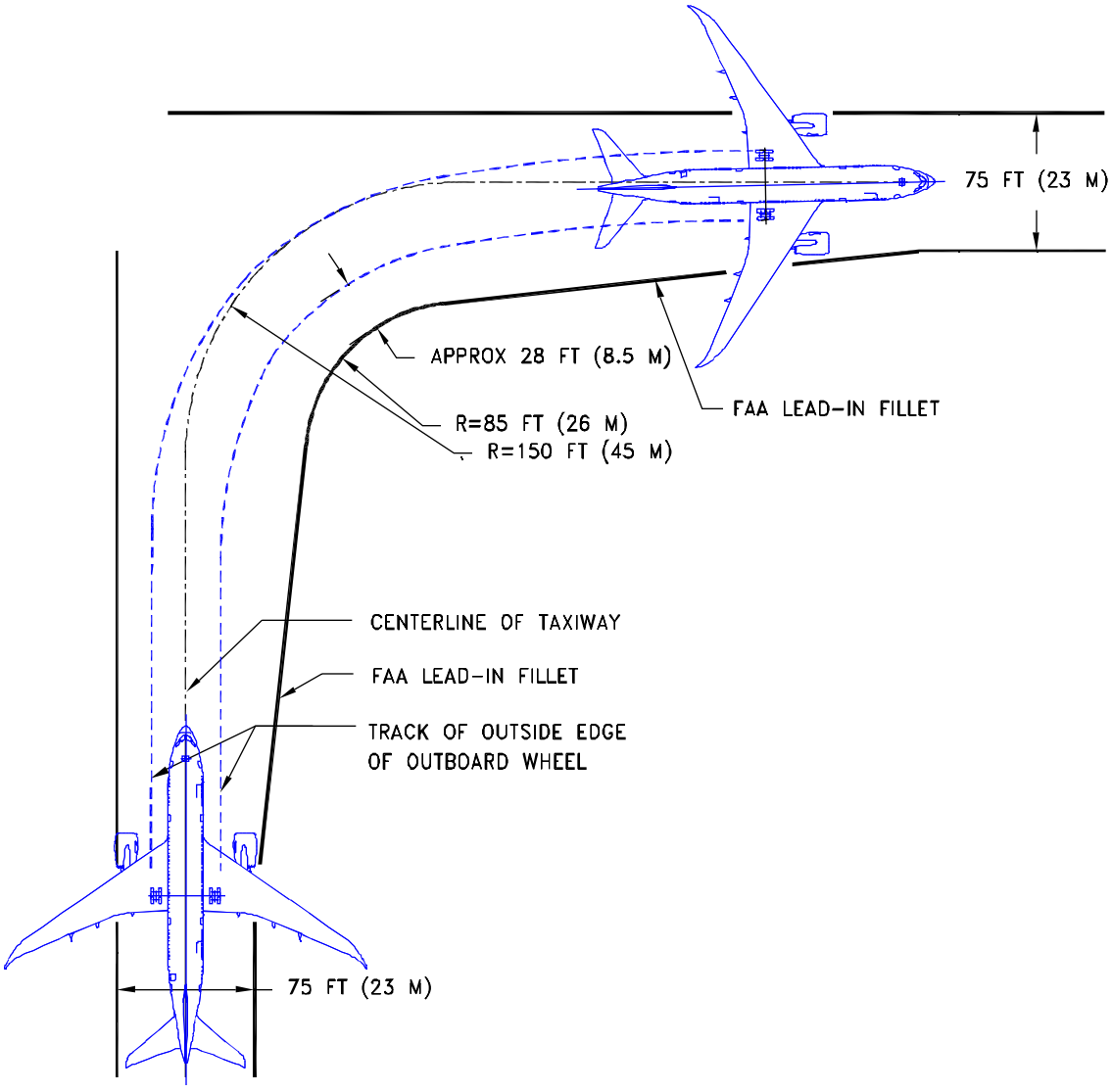
NOSE GEAR TRACKS
CENTERLINE OF TURNS

4.5.2 RUNWAY AND TAXIWAY TURNPATHS - RUNWAY-TO-TAXIWAY, 90-DEGREE TURN

MODEL 787-8

NOTE

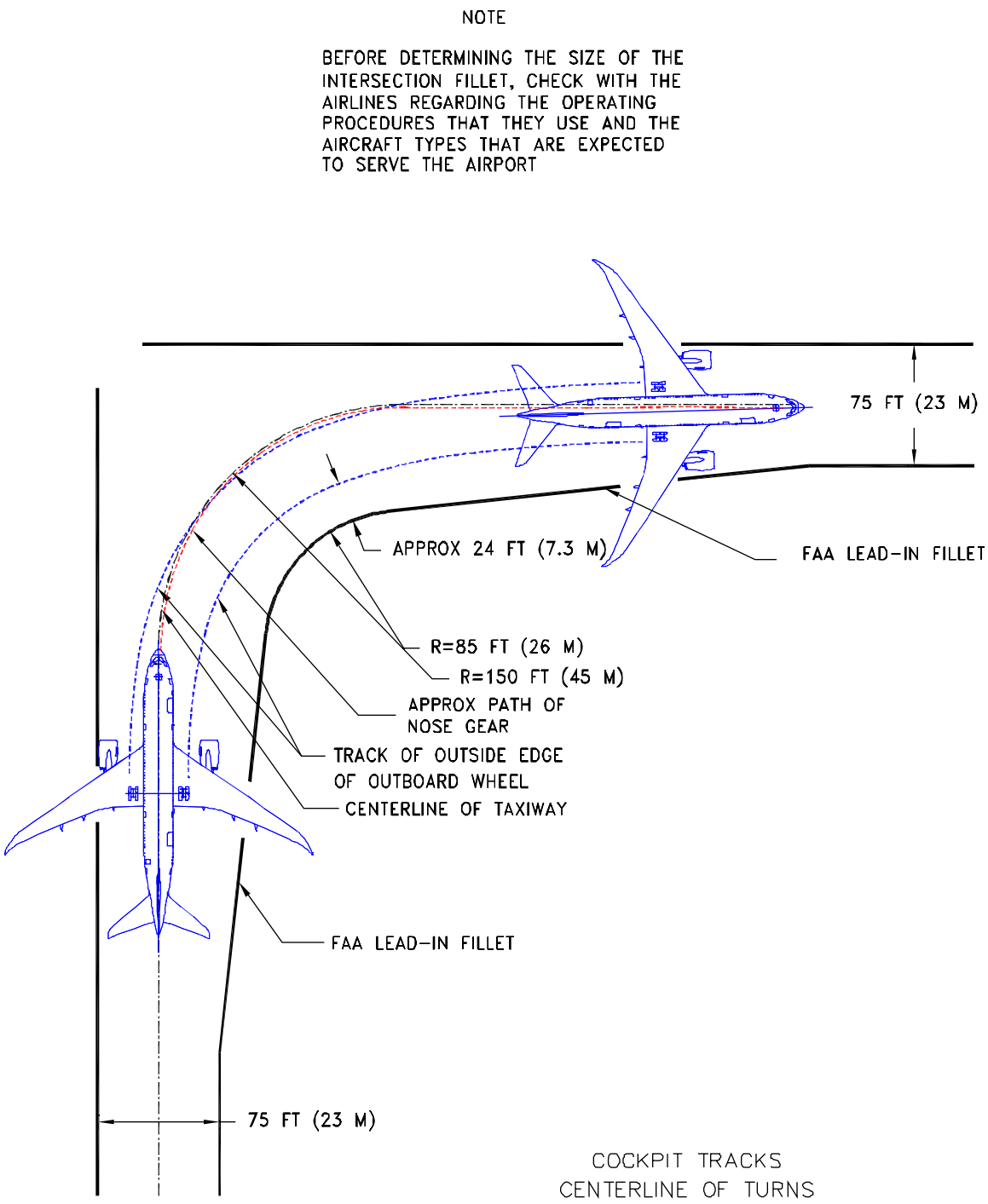
BEFORE DETERMINING THE SIZE OF THE INTERSECTION FILLET, CHECK WITH THE AIRLINES REGARDING THE OPERATING PROCEDURES THAT THEY USE AND THE AIRCRAFT TYPES THAT ARE EXPECTED TO SERVE THE AIRPORT



NOSE GEAR TRACKS
CENTERLINE OF TURNS

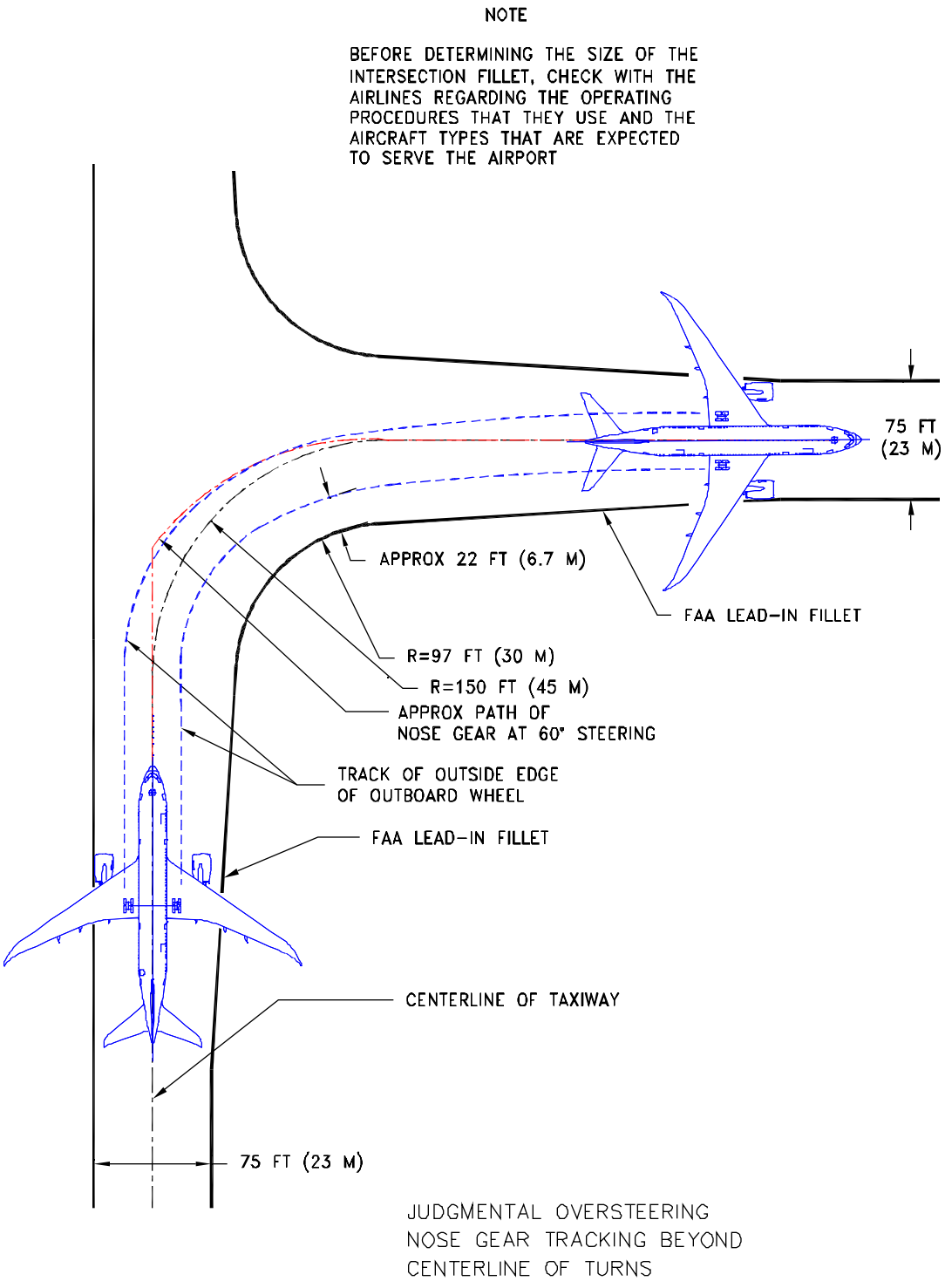
4.5.3 RUNWAY AND TAXIWAY TURNPATHS - TAXIWAY-TO-TAXIWAY, 90-DEGREE TURN, NOSE GEAR TRACKS CENTERLINE

MODEL 787-8



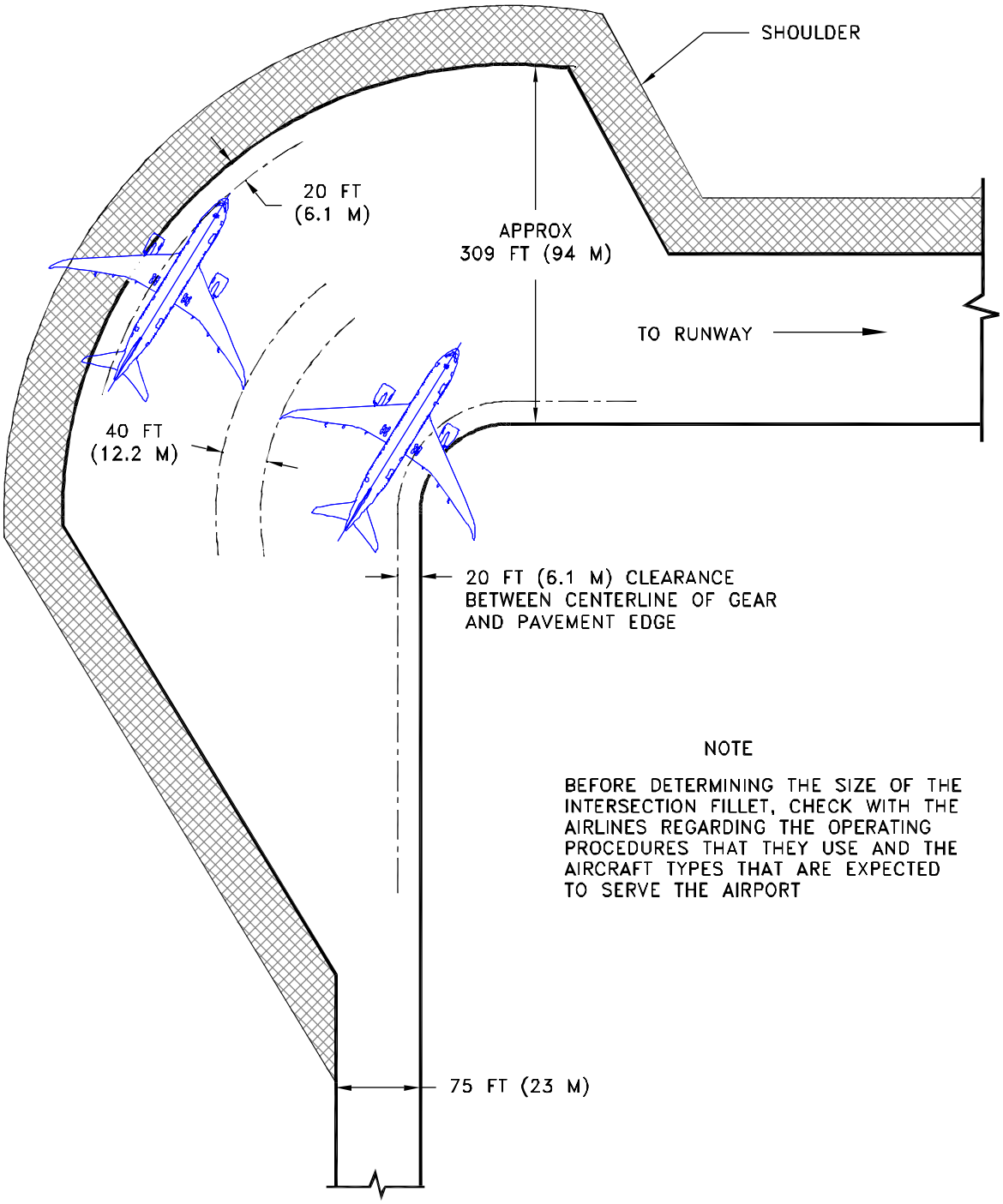
4.5.4 RUNWAY AND TAXIWAY TURNPATHS - TAXIWAY-TO-TAXIWAY, 90-DEGREE TURN, COCKPIT TRACKS CENTERLINE

MODEL 787-8



4.5.5 RUNWAY AND TAXIWAY TURNPATHS - TAXIWAY-TO-TAXIWAY, 90-DEGREE TURN, JUDGMENTAL OVERSTEERING

MODEL 787-8



4.6 RUNWAY HOLDING BAY

MODEL 787-8

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