

# *FAA Draft AC 150/5300-13B*

*Airport Design*

Selected Summary of Proposed Changes

*V1.0 of November 4, 2020*



# Main Definitions

- **Design Consideration (NEW)**: Additional factors to take into account during airport design that may influence application of a standard or recommended practice
- **Standard (NEW)**: A physical characteristic, quality, configuration, function, operation or procedure established by the FAA as a benchmark for uniformity, safety, capacity, performance, economy and environmental quality. The FAA standards serve a prominent role in fulfilling the FAA's statutory responsibilities summarized in paragraph
- **Recommended Practice (NEW)**: Supplemental measures and guidelines the FAA recognizes as being beneficial towards enhancing safety, capacity or efficiency. Recommended practices imply discretionary application to address a site specific condition
- **Requirement (NEW)**: A condition or action that establishes an obligation to conform. Mandatory language such as "must", "shall", "required" or "requirements" used in Draft AC 150/5300-13B describe obligations that originate in either federal statutes or regulations. The AC does not establish or modify any requirements..

# Main Items Not Changed

- **Runway-runway separations and ATC rules** are unchanged by Draft AC 150/5300-13. They are available in FAA Order JO 7110.65Y on Air Traffic Control.
- Items that remain unchanged include:
  - Visual and Daytime IFR Circling Obstacle Clearance Surfaces (OCS 1, 2, and 3).
  - Runway Protection Areas:
    - Runway Safety Area (RSA)
    - Runway Obstacle Free Zone (ROFZ)
    - Precision Obstacle Free Zone (POFZ)
    - Runway Protection Zone (RPZ)
    - Runway Object Free Area (ROFA)

## Legend For Tables

- Black – No Change to Existing Standards
- Red – Change (Value Increases from -13A to -13B)
- Green – Change (Value Decreases from -13A to -13B)
- Purple – New Concept or Category

# Runway Design Criteria

	AC 150/5300-13A Chg. 1			Draft AC 150/5300-13B		
	C/D/E - III			C/D/E - III		
	Runway Width	Shoulder Width	Blast Pad Width	Runway Width	Shoulder Width	Blast Pad Width
<b>Visual</b>	150 ft.	25 ft.	200 ft.	100 ft.	20 ft.	140 ft.
<b>Not Lower than 1 mile</b>	150 ft.	25 ft.	200 ft.	100 ft.	20 ft.	140 ft.
<b>Not Lower than 3/4 mile</b>	150 ft.	25 ft.	200 ft.	100 ft.	20 ft.	140 ft.
<b>Lower than 3/4 mile</b>	150 ft.	25 ft.	200 ft.	100 ft.	20 ft.	140 ft.

**Note:** The runway design criteria for all the other Runway Design Codes (RDC) **remains the same.**

# Runway Obstacle Clearance Surface (OCS) Approach Procedure with Vertical Guidance & Precision Approach

5

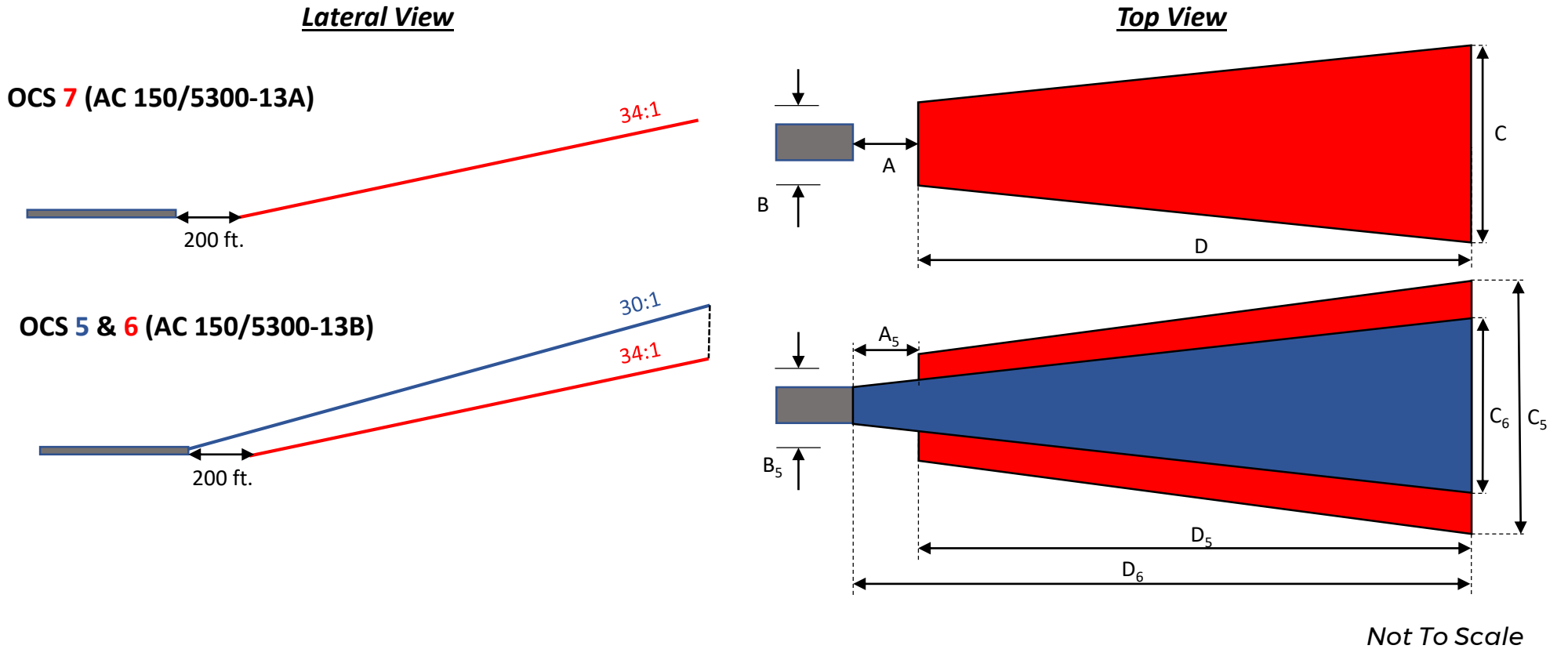
AC 150/5300-13A Chg. 1						
	Runway Type	Dimensional Standards				Slope
		A	B	C	D	
<b>OCS 5</b>	<b>Approach</b> end of runways expected to support instrument night operations serving greater than approach Category B aircraft	200 ft.	800 ft.	3,800 ft.	10,000 ft.	20:1
<b>OCS 6</b>	<b>Approach</b> end of runways expected to accommodate instrument approaches having visibility minimums $\geq \frac{3}{4}$ but $< 1$ statute mile ( $\geq 1.2$ km but $< 1.6$ km), day or night	200 ft.	800 ft.	3,800 ft.	10,000 ft.	20:1
<b>OCS 7</b>	<b>Approach</b> end of runways expected to accommodate instrument approaches having visibility minimums $< \frac{3}{4}$ statute mile (1.2 km)	200 ft.	800 ft.	3,800 ft.	10,000 ft.	34:1

Draft AC 150/5300-13B							
	Runway Type	Visibility minimums	Dimensional Standards				Slope
			A	B	C	D	
<b>OCS 5</b>	<b>Approach</b> end of runways providing ILS, MMLS, PAR, and LDA with glide path, LPV, LNAV/VNAV, RNP, or GLS	$\geq \frac{3}{4}$ SM	200 ft.	400 ft.	3,400 ft.	10,000 ft.	20:1
		$< \frac{3}{4}$ SM					34:1
<b>OCS 6</b>		All	0 ft.	Runway Width	1,520 ft.	10,000 ft.	30:1



# Runway Obstacle Clearance Surface (OCS) Approach Procedure with Vertical Guidance & Precision Approach

6

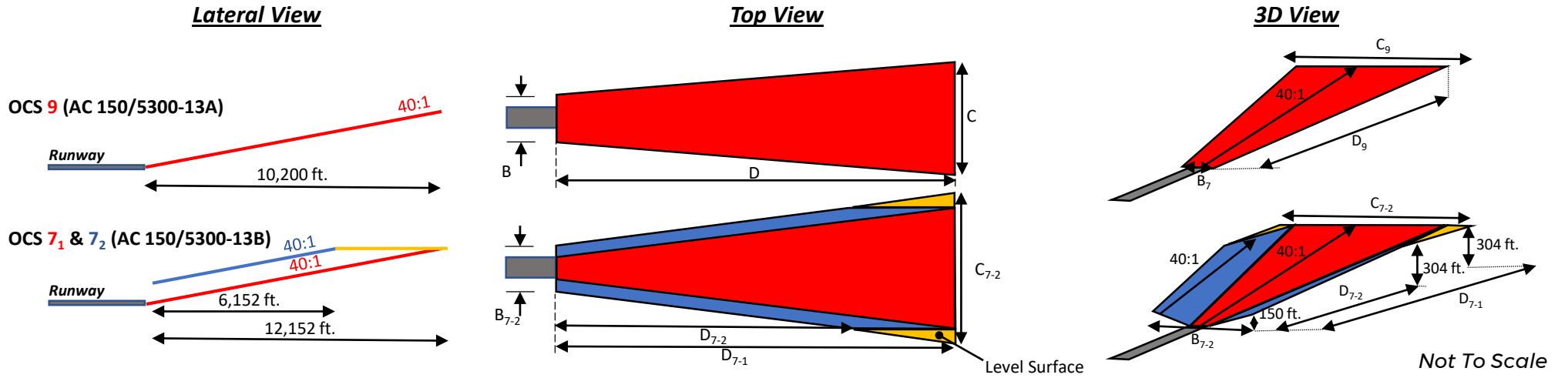


**Note:** OCS 5 & 6 in Draft AC 150/5300-13B includes and replaces OCS 7 in AC 150/5300-13A Chg. 1

Summary based on FAA AC 150/5300-13A Change 1 and Draft AC 150/5300-13B (version of July 20, 2020).



# Runway Obstacle Clearance Surface (OCS) Instrument Departure Surfaces



7

## AC 150/5300-13A Chg. 1

	Runway Type	Dimensional Standards				Slope
		A	B	C	D	
<b>OCS 9</b>	<b>Departure</b> runway ends for all instrument operations	CWY Length	1,000 ft.	6,466 ft.	10,200 ft.	40:1

**Note:** OCS 9 starts at the end and elevation of the clearway surface if one exists.

## Draft AC 150/5300-13B

	Runway Type	Visibility minimums	Dimensional Standards				Slope
			A	B	C	D	
<b>OCS 7 (Sec. 1)</b>	Runways providing instrument <b>departure</b> operations.	-	0 ft.	Runway Width	6,512 ft. + B <sub>7.1</sub>	12,152 ft.	40:1
<b>OCS 7 (Sec. 2)</b>		-	0 ft.	1,000 ft.	7,512 ft.	6,152 ft..	

Summary based on FAA AC 150/5300-13A Change 1 and Draft AC 150/5300-13B (version of July 20, 2020).



# Taxiway Separation Distances

AC 150/5300-13A Chg. 1				
	Taxiway		Taxilane	
	Centerline-to-Object	Wingtip Margin	Centerline-to-Object	Wingtip Margin
<b>ADG I</b>	44.5 ft.	20 ft.	39.5 ft.	15 ft.
<b>ADG II</b>	65.5 ft.	26 ft.	57.5 ft.	18 ft.
<b>ADG III</b>	93 ft.	34 ft.	81 ft.	22 ft.
<b>ADG IV</b>	129.5 ft.	44 ft.	112.5 ft.	27 ft.
<b>ADG V</b>	160 ft.	53 ft.	138 ft.	31 ft.
<b>ADG VI</b>	193 ft.	62 ft.	167 ft.	36 ft.

Summary based on FAA AC 150/5300-13A Change 1 and Draft AC 150/5300-13B (version of July 20, 2020).



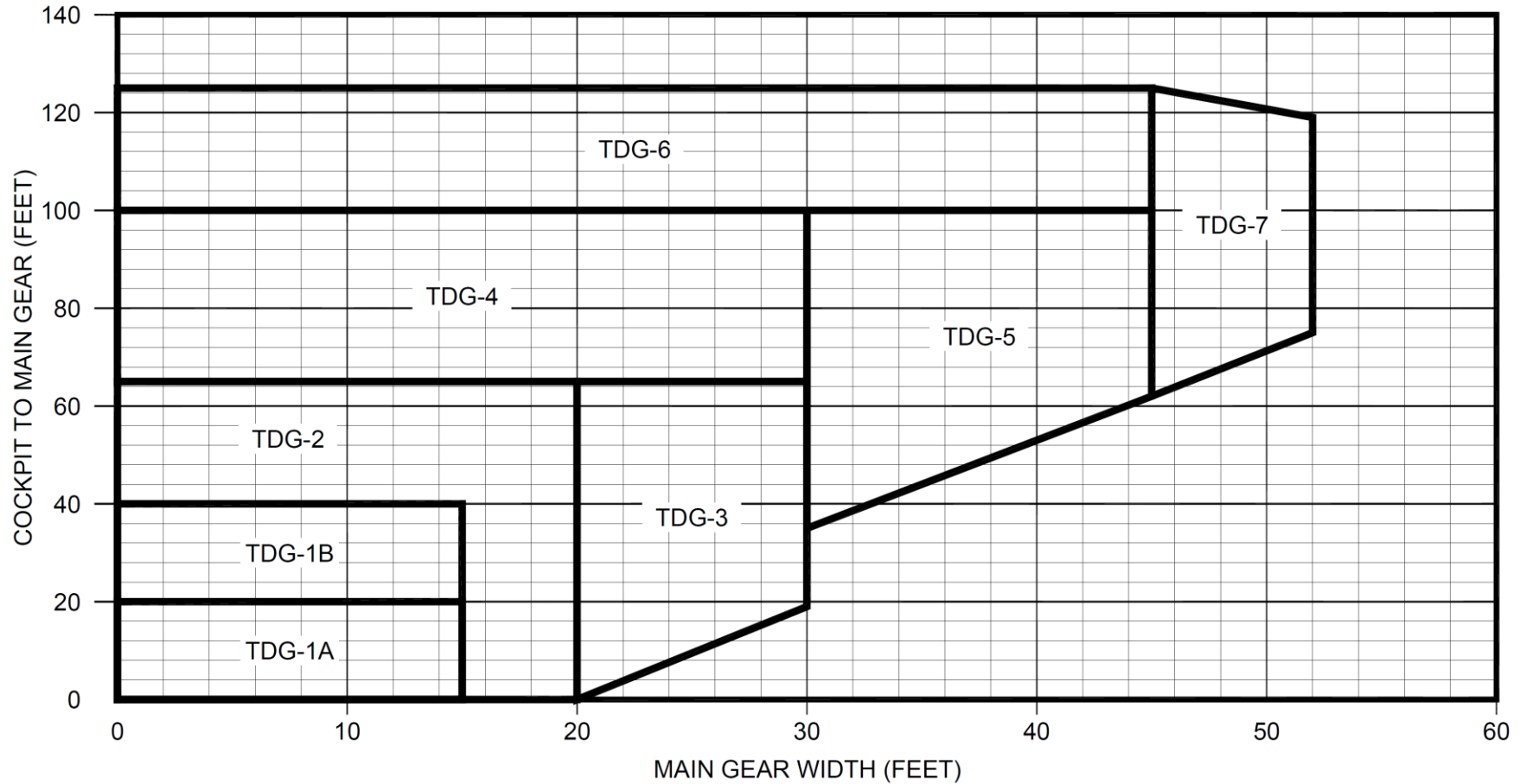
# Taxiway Separation Distances

Draft AC 150/5300-13B				
	Taxiway		Taxilane	
	Centerline-to-Object	Wingtip Margin	Centerline-to-Object	Wingtip Margin
<b>ADG I</b>	45 ft.	20 ft.	40 ft.	15 ft.
<b>ADG II</b>	62 ft.	23 ft.	55 ft.	16 ft.
<b>ADG III</b>	86 ft.	27 ft.	79 ft.	20 ft.
<b>ADG IV</b>	121 ft.	36 ft.	112 ft.	27 ft.
<b>ADG V</b>	142 ft.	36 ft.	135 ft.	28 ft.
<b>ADG VI</b>	168 ft.	36 ft.	161 ft.	30 ft.

Summary based on FAA AC 150/5300-13A Change 1 and Draft AC 150/5300-13B (version of July 20, 2020).

# Taxiway Design Groups

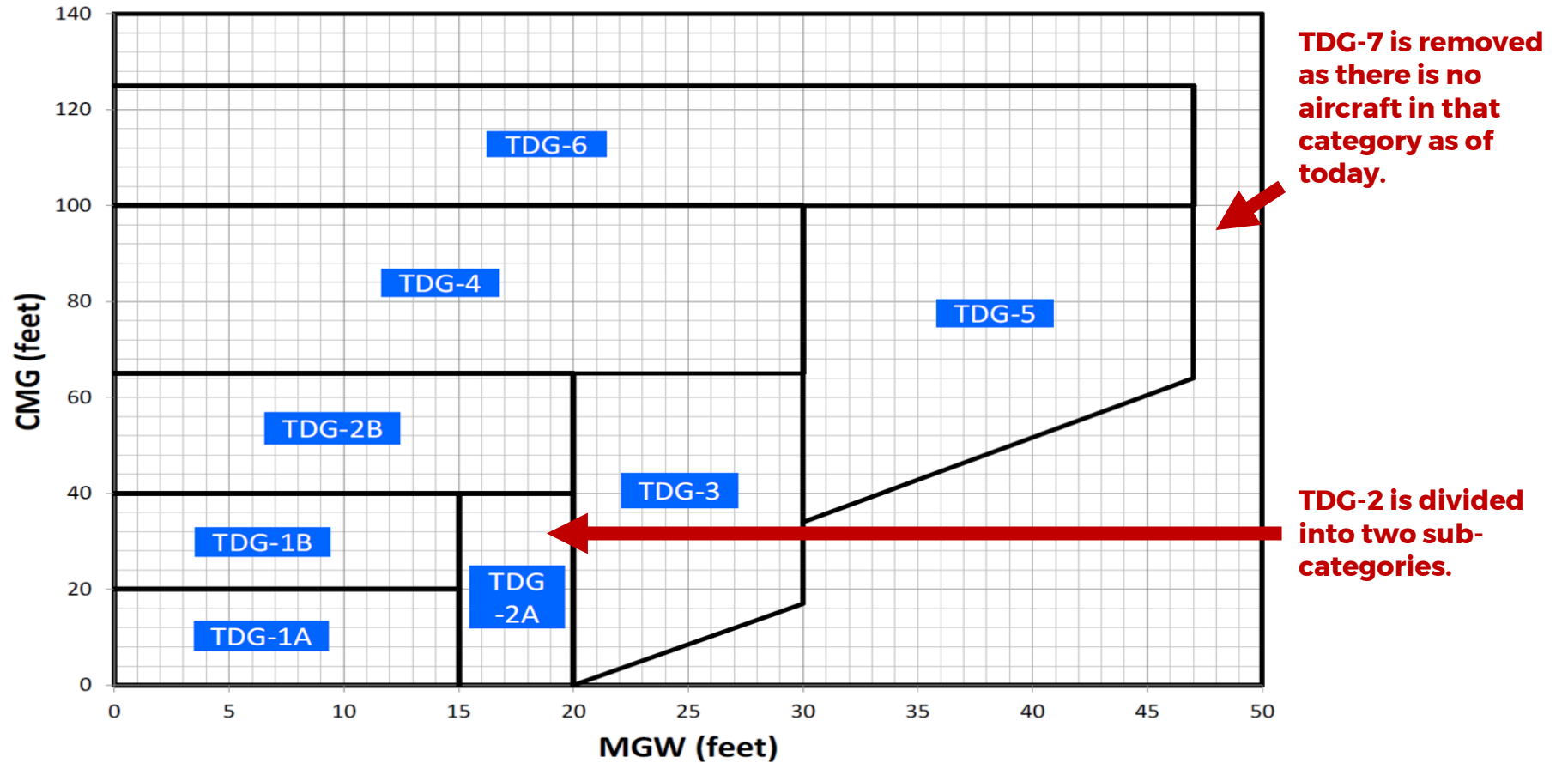
## AC 150/5300-13A Chg. 1



Summary based on FAA AC 150/5300-13A Change 1 and Draft AC 150/5300-13B (version of July 20, 2020).

# Taxiway Design Groups

## Draft AC 150/5300-13B



Summary based on FAA AC 150/5300-13A Change 1 and Draft AC 150/5300-13B (version of July 20, 2020).



# Taxiway Geometry (Selected Dimensions)

AC 150/5300-13A Chg. 1				
	Straight Portion		90° Turn	
	Taxiway Width	TESM	R-Centerline	R-Outer
<b>TDG-1A</b>	25 ft.	5 ft.	25 ft.	37 ft.
<b>TDG-1B</b>	25 ft.	5 ft.	40 ft.	52 ft.
<b>TDG-2</b>	35 ft.	7.5 ft.	60 ft.	77 ft.
<b>TDG-3</b>	50 ft.	10 ft.	60 ft.	85 ft.
<b>TDG-4</b>	50 ft.	10 ft.	95 ft.	120 ft.
<b>TDG-5</b>	75 ft.	15 ft.	95 ft.	162 ft.
<b>TDG-6</b>	75 ft.	15 ft.	115 ft.	180 ft.
<b>TDG-7</b>	82 ft.	15 ft.	115 ft.	190 ft.

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Draft AC 150/5300-13B				
	Straight Portion		90° Turn	
	Taxiway Width	TESM	R-Centerline	R-Outer
<b>TDG-1A</b>	25 ft.	5 ft.	19 ft.	31.5 ft.
<b>TDG-1B</b>	25 ft.	5 ft.	37 ft.	49.5 ft.
<b>TDG-2A</b>	35 ft.	7.5 ft.	37 ft.	54.5 ft.
<b>TDG-2B</b>	35 ft.	7.5 ft.	60 ft.	77.5 ft.
<b>TDG-3</b>	50 ft.	10 ft.	60 ft.	85 ft.
<b>TDG-4</b>	50 ft.	10 ft.	92 ft.	117 ft.
<b>TDG-5</b>	75 ft.	14 ft.	92 ft.	129.5 ft.
<b>TDG-6</b>	75 ft.	14 ft.	115 ft.	152.5 ft.

Summary based on FAA AC 150/5300-13A Change 1 and Draft AC 150/5300-13B (version of July 20, 2020).

# Apron Parking Position Clearance

Draft AC 150/5300-13B	
	Recommended Minimum WingtiClearances
<b>ADG I</b>	10 ft.
<b>ADG II</b>	10 ft.
<b>ADG III</b>	25 ft.
<b>ADG IV</b>	25 ft.
<b>ADG IV</b>	25 ft.
<b>ADG IV</b>	25 ft.

# Fly safe!



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# Taxiway Separation Distances (Credit Card Size)

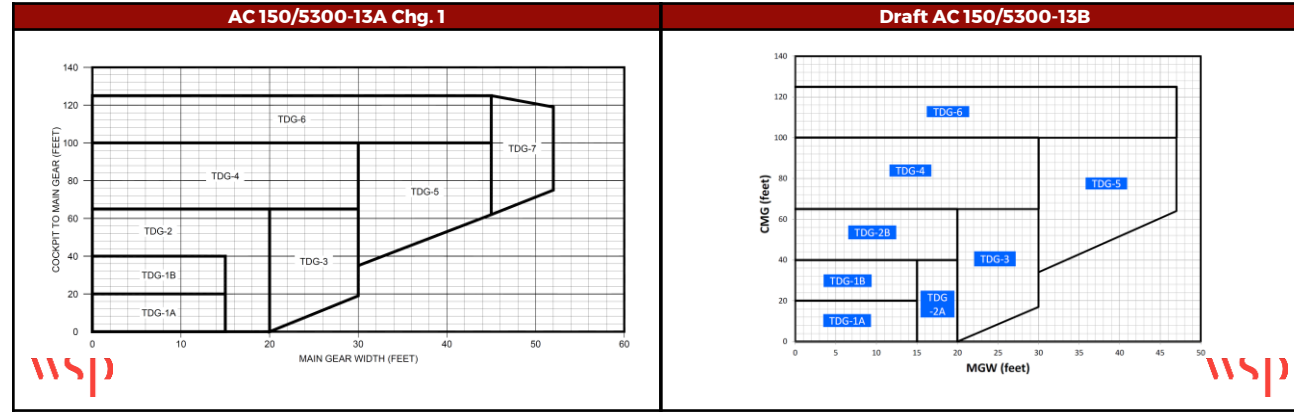
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wsp	Taxiway		Taxilane		wsp	Taxiway		Taxilane	
	Centerline-to-Object	Wingtip Margin	Centerline-to-Object	Wingtip Margin		Centerline-to-Object	Wingtip Margin	Centerline-to-Object	Wingtip Margin
<b>ADG I</b>	44.5 ft.	20 ft.	39.5 ft.	15 ft.	<b>ADG I</b>	45 ft.	20 ft.	40 ft.	15 ft.
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**Print me in 8.5 x 11 and cut me!  
Bring me with you in meetings  
and in the field!**





# Taxiway Design Groups (Credit Card Size)



17

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