



Federal Aviation
Administration

Taxiway Design

Update to Airport Design, AC 150/5300-13A

Industry Day

Presented To: Aviation Industry Representatives

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Federal Aviation
Administration

Overview

- **Principal Updates**

- Emphasis on Runway Incursion (RI) prevention through better taxiway geometry
- New: Taxiway Design Groups (TDG) for efficient fillet design



Purpose

- **“Design out” runway incursions**
- **Remove judgmental oversteering**
- **Update inadequate fillet guidance**

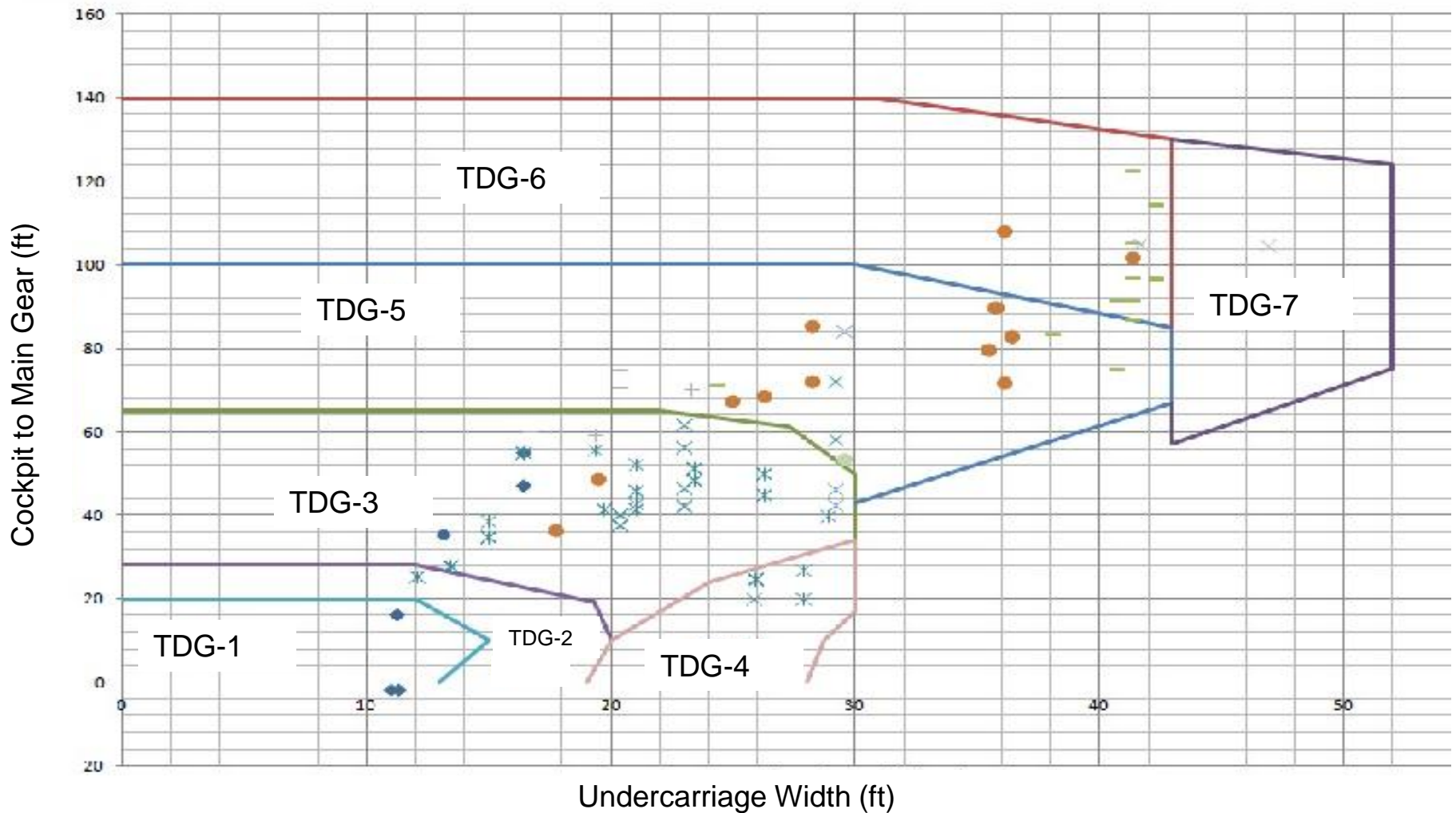


Methodology

- **Airplane Design Group**
 - Wingspan
 - Tail Height
 - Determines Separation Standards
- **Taxiway Design Group**
 - Main Gear Width
 - Cockpit to Main Gear Distance
 - Determines Taxiway Width & Fillet Design
 - Can Determine Separation for 180° Turns & Runway to Taxiway Separation



Taxiway Design Groups



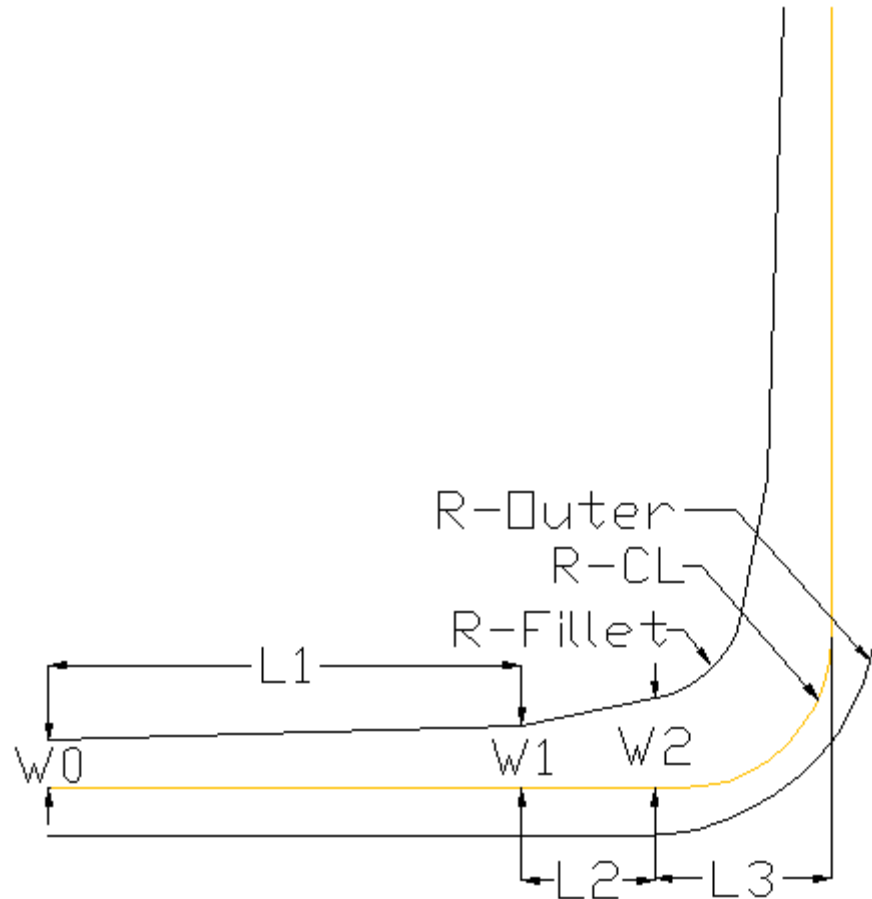
Fillet Design

- **Design for maximum 50° Nose Gear Angle**
- **Use “standard” intersection angles**
- **Minimize excess pavement**



Curve Design

Reduce unused pavement at outside of curve



Intersection Specifications

Taxiway Design Group 6							
Intersection Angle	30	45	60	90	120	135	150
W-0	41	41	41	41	41	41	41
W-1	47	50	47	55	50	53	57
W-2	65	75	60	75	85	82	84
L-1	300	300	300	340	320	320	366
L-2	170	170	140	125	180	140	145
L-3	17	31	145	150	260	380	573
R-Fillet	0	0	230	90	75	85	75
R-CL	110	110	110	110	140	150	150
R-Outer	550	375	300	211	205	205	200



Issues Addressed in the AC

- **Pavement savings vs. constructability**
- **Pavement savings vs. existing lighting**
- **Constructability vs. lighting & signing**
- **Taxiway separation based on TDG**
 - 180° turns require greater separation



Questions

