

Crosswind Runways

Applying AC 150/5000-17

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What's changed?

- Prior convention
 - Assumed maintenance of existing crosswinds.
 - Unless substantial costs or land required for other aviation purpose.
 - Same design code as primary.
 - Length should be 80% of primary runway.
- AC 150/5000-17 par 3.3.2, “Separate Critical Aircraft Determination for Each Runway at an Airport.”

The determination of the Critical Aircraft for a crosswind runway requires meeting both the wind coverage requirements as specified in AC 150/5300-13, Airport Design, and the regular use requirements for the aircraft that would use the crosswind runway. See Paragraph 3.8.

Example: Wind Coverage Calculations

Equivalent Annual Operations = 500 / GAP

	PRIMARY	COMBINED	GAP	REQ. ANNUAL OPs
10.5 knots	92%	96%	4%	12,500 AAC= A
13 knots	94%	97%	3%	16,666 AAC= B

- Operations =total landings + departures (no touch and go operations).
- Alternatively show regular use by documenting aircraft actually using the runway.
- *Note: Annual operations reported in TAF and 5010 are not sufficient for airport planning without other validation.*

Runway dimensions

- If you only have wind coverage for approach category A aircraft, it is unlikely you can justify pavement widths for Group II.
- Category A and B use the same runway length chart. In most instances this supports 3,000 to 3,200 ft.
- Can you avoid intersections and the RVZ?
- The airport can reconstruct current dimensions, but *AIP grant funding will typically be limited to that portion of the project that meets FAA standards.* (par. 3.15.1)

Planning Considerations

- These criteria are developed to guide new construction.
- Refinements to policy are being considered for proper application to existing runways that exceed needs.
- Until then, ANE-600 cannot support AIP funding of runways that have inadequate justification.
- ADS-B can produce data on individual runway usage but not a 100% unless supplemented by G.A.R.D. or other method.

Other Considerations

- Do you have reliable wind data?
- What does it cost your airport to plow and maintain the crosswind runway?
- If the runway is not plowed in the winter, how does that factor into justifying its need?
- Would the corridor be better used for other user needs or for non-aeronautical revenue generation for the airport?
- Is there a plausible scenario that would alter the need for a crosswind runway?