



UNITED STATES LOWER THAN STANDARD TAKE-OFF MINIMUMS — CHANGES TO JEPPESEN CHARTS

BACKGROUND

As a result of efforts to harmonize the criteria for lower than standard take-off minimums with ICAO, the FAA published Notice N 8900.38: **Revised Guidance and Authorizations for IFR Lower Than Standard Takeoff Minima Airplane Operations – All Airports (C078 and C079)**. The Notice provides guidance to 14 CFR Part 121, 125, 135, and 91 subpart K operators regarding the authorization of lower than standard take-off minimums at airports in the U.S.

This Briefing Bulletin outlines the changes to the depiction of lower than standard take-off minimums as they will appear on Jeppesen charts beginning in the 30 MAY 08 revision. Due to the volume of changes, all affected charts will be updated to reflect the new criteria over the course of several charting cycles.

The FAA maintains a website containing a list of all runways that are authorized for lower than standard take-off minimums of 300, 500 or 1000 RVR (RVR 3, RVR 5, RVR 10) at:

http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs410/status_lists/

For the complete Notice N 8900.38, refer to the FAA's website at:

<http://fsims.faa.gov/home.aspx>

CHANGES TO CRITERIA

Major changes in FAA Notice N 8900.38 include the following:

- Only two RVR reports are required for lower than standard take-off operations.
- RVR 5 is now the lowest authorized take-off minimum based upon outside visual references.
- High intensity runway lighting (HIRL) is required for take-off operations less than RVR 10.

The following requirements and restrictions apply to the use of RVR values below RVR 16:

- a. Where only two RVR sensors are installed, the TDZ and Rollout RVR sensor reports are both required and controlling.
- b. Where three RVR sensors are installed on the runway to be used:
 1. The TDZ, Mid and Rollout RVR reports are controlling for all operations.
 2. The failure of any one RVR will not affect operations provided the remaining two RVR sensors are reporting values at or above the appropriate minimums.

NOTE: Extremely long runways (e.g., DEN 16R-34L) utilize four RVR sensors (i.e., TDZ, Mid, Rollout, and Far-End). When a fourth Far-End RVR value is reported, it is not controlling and is not to be used as one of the two required operative RVR systems.

CHANGES TO CHART FORMAT

Jeppesen's depiction of lower than standard take-off minimums at U.S. airports has been modified to include all pertinent equipment requirements. These include

- notations for the number of RVR reports below RVR 16,
- specific runway lighting and runway centerline markings required for each level of RVR, and
- the term HUD (approved Head-Up Display take-off guidance system) in place of the phrase "Approved Guidance System" for RVR 3 authorization.

The configuration of RVR sensors on each runway – TDZ, Mid (where installed) and Rollout – remains the same, and the take-off minimums will still reflect the number of available RVR reports on each runway.

The lowest available take-off RVR values for each runway or group of runways are shown to the left. Moving to the right, the RVR values increase depending on the availability of centerline (CL) and high intensity runway lights (HIRL) as well as runway centerline markings (RCLM). Where lower than standard take-off minimums are shown, the aircraft engine requirements for Standard take-off minimums are now depicted as column headings (i.e., 3 & 4 Eng, 1 & 2 Eng).

NOTE: Jeppesen charts depict the lowest authorized take-off minimums as defined by the criteria. However, principal operations inspectors may issue OpSpecs authorizations with higher take-off minimums to individual operators.

CHART SAMPLE

Depending on the authorized lower than standard take-off minimums, the number of RVR sensors, and any additional climb requirements for each runway, it may be necessary to depict the take-off minimums in more than one band.



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In this example, most runways have three RVR sensor reports. Two of the runways depict the requirement for HUD (as well as CL & HIRL) for RVR 3. And two of the runways have only two RVR reports, with RVR 10 being the lowest authorized take-off minimum. Even though these runways share the same basic take-off minimums, they are shown separately due to one runway having a minimum climb requirement.

Example of an airport's take-off minimums with multiple authorizations and equipment requirements for lower than standard take-off operations

TAKE-OFF										
Rwys 36R, 36C										
2 operating RVRs are required All operating RVRs are controlling						Adequate Vis Ref	STD			
HUD & CL & HIRL		CL & HIRL		CL, or RCLM & HIRL			3 & 4 Eng		1 & 2 Eng	
TDZ RVR 3 Mid RVR 3 Rollout RVR 3		TDZ RVR 5 Mid RVR 5 Rollout RVR 5		TDZ RVR 10 Mid RVR 10 Rollout RVR 10		RVR 16 or 1/4		RVR 24 or 1/2	RVR 50 or 1	
Rwys 18R, 18C, 18L, 36L										
2 operating RVRs are required All operating RVRs are controlling						Adequate Vis Ref	STD			
CL & HIRL			CL, or RCLM & HIRL				3 & 4 Eng		1 & 2 Eng	
TDZ RVR 5 Mid RVR 5 Rollout RVR 5			TDZ RVR 10 Mid RVR 10 Rollout RVR 10			RVR 16 or 1/4		RVR 24 or 1/2	RVR 50 or 1	
Rwy 9				Rwy 27						
Both RVRs are required & controlling		Adequate Vis Ref		STD		With Min Climb of 224' /NM to 500'				
						Both RVRs are required & controlling		Adequate Vis Ref		STD
CL, or RCLM & HIRL		3 & 4 Eng		1 & 2 Eng		CL, or RCLM & HIRL		3 & 4 Eng		1 & 2 Eng
TDZ RVR 10 Rollout RVR 10		RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	TDZ RVR 10 Rollout RVR 10		RVR 16 or 1/4	RVR 24 or 1/2	RVR 50 or 1	300-1/4