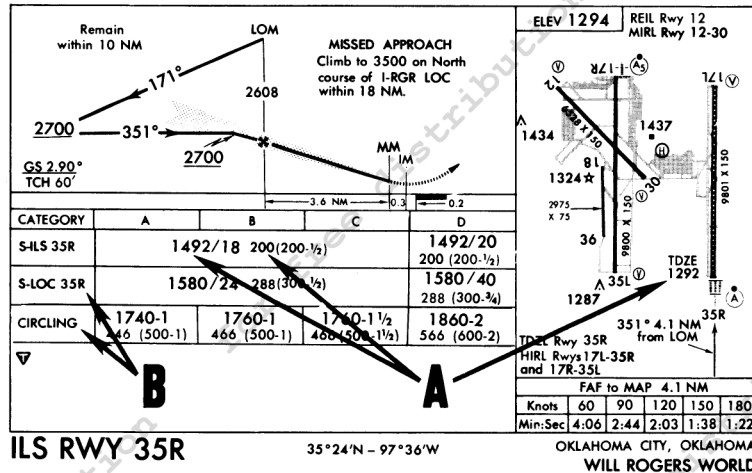


**U.S. DEPARTMENT OF TRANSPORTATION  
Federal Aviation Administration  
IFR PILOT EXAM-O-GRAM® NO. 40**

The ILS Category II Approach Procedure - What is it?

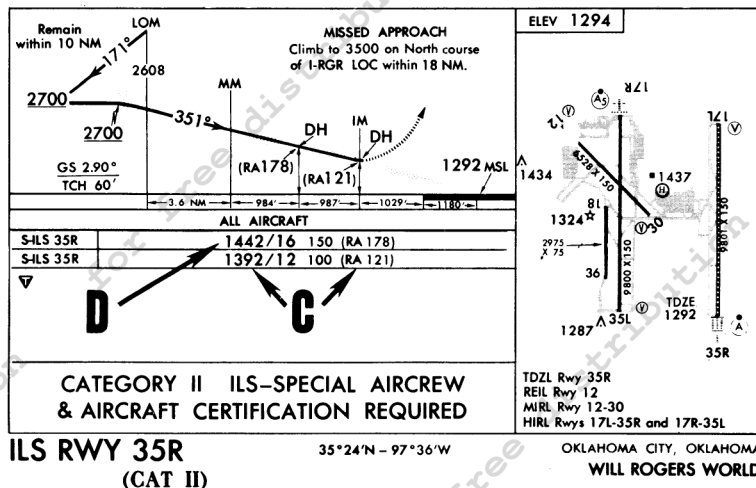
Analyses of written test results indicate that many applicants are not aware of the differences between the ILS Category I and ILS Category II instrument approach procedures. This Exam-O-Gram is intended to compare these two approaches. Your training and experience for the instrument rating should have familiarized you with the "normal" ILS Category I approach procedure which allows an airplane, using an electronic glide slope, to descend to decision heights (DHs) no lower than 200 feet above the highest elevation in the touchdown zone (TDZ), Figure 1, Arrow A. The minimum visibility requirements vary with approach and runway lighting, but are in no case lower than RVR 18 for approach category A, B, and C, and RVR 20 for approach category D. In addition, the ILS Category I approach procedure provides for localizer-only and circling approach minimum descent altitudes (MDAs), Figure 1, Arrow B.

FIGURE 1



How then, does the ILS Category II approach, commonly referred to as "CAT II," differ from the ILS Category I approach? A CAT II operation is defined as a straight-in ILS approach to a runway of an airport under an ILS instrument approach procedure that includes lower than Category I decision heights and visibility minimums. Compare the glide slope depictions in Figures 1 and 2. Notice that the CAT II approach allows descent to lower DHs. Specifically, for the "full" CAT II, the DHs are to 100 feet and the minimum visibility requirement is 1,200 feet RVR. The DHs are given in both barometric (MSL) and radio altimeter (RA) values (Figure 2, Arrow C). The barometric DH is referenced to the TDZE just as in the ILS Category I approach. The RA DH coincides with the MSL DH location and includes the height of the electronic glide slope above the terrain at that point.

FIGURE 2



Because of SPECIAL AIRCREW & AIRCRAFT CERTIFICATION requirements, not all instrument rated pilots are authorized to execute a CAT II approach. Normally, only air carrier operators possess the training facilities and equipment necessary to accomplish the certification requirements. Even then, approval for use of the full CAT II minima is granted only after a record of consistently successful performance at CAT II "Interim" minima (Figure 2, Arrow D) which provides for DHs to 150 feet and a minimum visibility requirement of 1,600 feet.

For a "full" CAT II approach procedure to be approved, certain ground equipment is necessary, in addition to that required for ILS Category I operations. Included in this equipment are runway centerline lighting (RCL), touchdown zone lighting (TDZL), and sequenced flashers with the approach lighting system (ALS). Although a pilot may not be authorized to use the CAT II instrument approach procedure, these aids should greatly enhance the visual cues observed during a Category I approach to a runway certificated for CAT II operations under all visibility conditions.

Aircrew and aircraft requirements for ILS Category I and II operations are contained in FAR Parts 61 and 91. Additionally, information regarding Category II holding lines and ground operations in the vicinity of the Category II localizer and glide slope equipment is discussed in IFR Exam-O-Gram No. 28.

To accommodate future airplane and airport capabilities and requirements, Category III approach procedures are being formulated. These approaches and requirements are given below primarily for your information and to illustrate the degree of equipment sensitivity and aircrew certification that will be required.

	<u>Decision Heights</u>	<u>Visibility/RVR</u>
Category III A	None	700 feet
Category III B	None	150 feet
Category III C	None	None

References: FAR Parts 61, 91, and AIM Part I

\* Exam-O-Grams are non-directive in nature and are issued solely as an information service to individuals interested in Airman Written Examinations.

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