touchdown points. These distances may be based upon the use of reverse thrust, ground spoilers, autobrakes, etc.

4-503 LANDING DISTANCE ASSESSMENT AT TIME OF ARRIVAL. There is no specific regulation requiring operators to assess landing distance requirements at time of arrival, but the FAA encourages operators to adopt such procedures to assure a safe landing can be made. Additionally, the FAA highly encourages operators to utilize their FAA-approved landing performance data and any associated manufacturer-provided supplemental/advisory data in concert with the AC 91-79-generated RCAM braking action codes to conduct an adequate landing distance assessment at the time of arrival. This is particularly important when the landing runway is contaminated or not the same runway analyzed for dispatch calculations.
The following are best practices for conducting a landing distance assessment at time of arrival.

A. Timeliness. The assessment is initially performed when landing weather and field conditions are obtained, usually around Top of Descent (TOD). The assessment includes consideration of how much deterioration in field conditions can be tolerated so that a quick decision can be made just prior to landing if the preceding aircraft provides a Pilot Weather Report (PIREP) of worse-than-expected braking action.

B. Source of Data.

1) When possible, the operational landing distance data used is advisory data based on the recommendations of the current edition of AC 25-32, Landing Performance Data for Time-of-Arrival Landing Performance Assessments. This data may be provided by the manufacturer or developed by a performance data provider.

2) For some older airplanes still in service, the manufacturer may not provide advisory data for a time-of-arrival assessment. This is especially true for those manufacturers no longer in business. In this case, the Landing Distance Factors (LDF) from Table 4-11, Landing Distance Factors, may be used. To find the LDR, multiply the AFM (dry, unfactored) landing distance by the applicable LDF in Table 4-11 for the runway conditions existing at the time of arrival. If the AFM landing distances are presented as factored landing distances, then those data must be adjusted to remove the applicable dispatch factors applied to that data. The LDFs given in Table 4-11 include a 15 percent safety margin, and an air distance representative of normal operational practices.

Table 4-11. Landing Distance Factors

The following factors are multipliers to the unfactored AFM demonstrated landing distances:

Runway Condition Code	6	5	4	3	2	1
Braking Action	Dry	Good	Good to Medium	Medium	Medium to Poor	Poor
Runway Description	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
Turbojet, No Reverse	1.67	2.6	2.8	3.2	4.0	5.1
Turbojet, With Reverse	1.67	2.2	2.3	2.5	2.9	3.4
Turboprop Note 2	1.67	2.0	2.2	2.4	2.7	2.9

Note 1: Runway Descriptions may be found in the RCAM for each runway condition code (RwyCC) or Braking Action (refer to AC 91-79).

Note 2: These LDFs apply only to modern turboprops with efficient disking drag. For older turboprops without adequate disking drag use the Turbojet, No Reverse LDFs.

Note 3: The LDFs can apply to any type of anti-skid system (e.g., fully-modulating, quasi-modulating, or on-off system). A description of anti-skid systems can be found in the current edition of AC 25-7, Flight Test Guide for Certification of Transport Category Airplanes. This note applies to the whole table.

C. Runway Condition Considerations. When available for the portion of the runway that will be used for landing, the following are considered:

1) RwyCC.

2) Expected runway conditions (contaminate type and depth).

3) Pilot braking action report.

D. Aircraft Performance Considerations. The following considerations may impact operational landing distance calculations:

1) Runway slope,

2) Airport elevation,

3) Wind,

4) Temperature,

5) Airplane weight and configuration,

6) Approach speed at threshold,

7) Adjustment to landing distance (such as autoland), and

8) Planned use of airplane ground deceleration devices.

E. Safety Margin. The operational landing distance used for a time-of-arrival landing assessment includes a safety margin of at least 15 percent when based on manual wheel braking.

F. Autobrake Usage. While autobrakes are a part of the aircraft's landing configuration, this landing distance assessment procedure is not intended to force higher than reasonable autobrake selection. For operations when the runway is dry or when the runway is wet, grooved, or Porous Friction Course (PFC) (a relatively thin layer of aggregate sized porous asphalt that allows free penetration of the surface water to the underlying impervious surface course), if the manual braking distance provides a 15 percent safety margin, then the braking technique may include a combination of autobrakes and manual braking even if the selected autobrake landing data does not provide a 15 percent safety margin.

G. Touchdown Point. The touchdown point used in the assessment reflects the assumed air distance. Operational landing data usually includes an allowance for 1,500 feet or 7 seconds of air distance from the threshold to touchdown. An air distance as short as 1,000 feet may be used if an operator's landing assessment procedures include enhancements to minimize the risk of overruns or undershoots, including:

1) Training in touchdown control and short field landing techniques.

2) Identification of required touchdown point and training to assure go-around procedures are initiated, if unable to achieve a suitable touchdown point.

3) Approach guidance and runway markings on the specific runway are consistent with a shorter air distance.

4) Operational data provided to the crew for the specific runway, conditions, and aircraft landing configuration without the need for interpolation.

5) The flight techniques assumed in the creation of the performance data used for a shorter air distance are based on flight techniques to be used in the shorter air distance operation. For example, the assumed speed bleed off used in the performance data needs to be consistent with the trained flight techniques for flaring the aircraft.

H. Assessment Based on Dispatch Criteria. When the runway is dry, or when the runway is wet and grooved or a PFC, the assessment may be as simple as confirming the runway meets the criteria used for dispatch.

I. Documentation and Training. Published material and training material include the assumptions and limitations on the use of the data provided to do a landing distance assessment at the time of arrival.

RESERVED. Paragraphs 4-504 through 4-520.