A stabilized approach is a fundamental factor in reducing the occurrence of both hard landings and runway excursions.

Within their operations manual, most airlines define the criteria for a stabilized approach. Also within the manual, if the stabilization criteria has not been met at the specific height above the touchdown zone elevation (TDZE), the approach must be abandoned and a go-around executed.

The stabilization criteria may also utilize multiple “gates” of varying heights (see figure) to ensure stabilization. The most common height values in use are 500 and 1000 feet AGL, however, some operators have elected to mandate stabilized criteria at a greater height above TDZE.

The FAA defines a Stabilized Approach as:

“One in which the pilot establishes and maintains a constant angle glidepath towards a predetermined point on the landing runway.”
Aircraft speed and altitude play critical roles in whether an aircraft is able to navigate these “gates” (referred to as a “window” in the graphic above). For a 3-degree glidepath, the 1000' stabilization window is located just over 3 miles from the runway threshold. Between that window and the termination point of the speed restriction, there must be sufficient distance for the aircraft to slow to approach speed and become compliant with all other stabilization criteria. To think of speed reduction in terms of knots lost per nautical mile flown (and many aircraft manufacturers provide information in those terms), is an over simplification. In reality, speed reduction is actually measured as knots lost per unit of time. Its nominal interval can be described as what is required to fly a mile while decelerating in no wind conditions.

Pilots of modern aircraft generally have both wind and ground speed information available. Although one does not fly based on ground speed, controllers should be aware of the ground speed vs. indicated airspeed and how best to use the information to determine whether or not a speed restriction is appropriate and acceptable. Controllers can determine the existing wind by pilot report or by comparing reported indicated airspeed (IAS) with the ground speed of the aircraft.

However, unanticipated airborne events may also contribute to situations resulting in an unstable approach. One example would be a pilot who accepts a shortened route but fails to anticipate the new requirements or necessary flight control adjustments for the new route. The new route may require the pilot to intercept the glideslope from a higher altitude or above the glideslope. In most situations though, a pilot will make the necessary adjustments to ensure a stabilized approach.

Be aware that these pilot actions may very well affect your traffic flow planning. It is common, especially at busy airports, for Air Traffic Control (ATC) to impose speed restrictions on arrival traffic to maintain appropriate separation between aircraft while optimizing runway capacity. Clearances such as "maintain 160 knots until 6 miles" or "maintain 170 knots until the final approach fix" are common. However, assign speed restrictions that are reasonable and allow adequate distance for the aircraft to achieve stabilized criteria prior to reaching the 1000' (or
500') gate. FAA Order JO 7110.65, Chapter 5, Section 7, provides instruction on the application of speed adjustment.

<table>
<thead>
<tr>
<th>Actions that the pilot may take when the opportunity for a shorter route is offered by the controller:</th>
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<tbody>
<tr>
<td>• Refusing clearance - acceptance of a short route clearance is a judgement issue and should be based on crew experience, aircraft capability and distance to fly</td>
</tr>
<tr>
<td>• Requesting early descent - assuming minimum vectoring or sector safety altitudes are not compromised, an early descent would reduce the likelihood of (need for) glideslope capture from above</td>
</tr>
<tr>
<td>• Requesting early speed reduction - builds in time to allow for checklist and briefing completion and enables early selection of landing configuration</td>
</tr>
<tr>
<td>• Early selection of landing configuration - puts aircraft into a power against drag configuration facilitating both glide slope capture from above and achievement of stabilized criteria</td>
</tr>
</tbody>
</table>

Responsibility for achieving stabilized parameters rests with the flight crew. It is solely their decision to execute a missed approach at the appropriate height should those parameters not be achieved. However, ATC clearances and instructions, whether they are vectors, altitude constraints or speed restrictions, especially in combination with adverse wind conditions or non-standard approach path intercepts, can make the achievement of the stabilization criteria difficult or even impossible and could lead to a controller-induced go around.

*T,*F Issuing Corrections to the METAR/SPECI.

All weather observers including Limited Aviation Weather Reporting Stations (LAWRS) facilities should follow the guidance in FAA Order JO 7900.5, Surface Weather Observing.

**FAA Order JO 7900.5D, paragraph 3.6**

**Corrections to Transmitted Data.** Once an error has been detected in a transmitted report, a correction must be transmitted as soon as possible. Do not transmit a correction if the original transmitted observation has been superseded by a later report. Transmit the entire corrected report with COR as the report designator. Use the original date and time of the report being corrected.

In the past, corrected reports (COR) were normally issued to correct “fat fingering”, typos, misspelled contractions, etc. If the same date and time group is used as the previously transmitted report, the subsequent COR report wipes out the old report and replaces it with the newer version.

When augmenting an automated weather system such as an Automated Surface Observing System (ASOS) or Automated Weather Observing System (AWOS-C), the observer is responsible for ensuring the accuracy of the weather report. Ideally, any augmentations or edits due to misrepresentative data are done prior to the meteorological terminal aviation routine weather report/meteorological terminal aviation non-routine weather report (METAR/SEPCI) transmitting. Sometimes, the weather observer or LAWRS controller does not complete the edits...
or additions prior to transmission, and CORs have been issued to augment/edit an already-transmitted report rather than just to correct a misspelled contraction or other typo.

However, if the automated weather system is set to broadcasting the last transmitted observation (LTO), and a COR is issued, the telephone broadcast will be suspended and unavailable to users until the next METAR/SPECI that is not a COR. If a facility issues CORs for four (4) straight hours, then the telephone broadcast is not available to pilots or any other users for four hours. It does not affect the ATIS broadcast, only the telephone.

If the ASOS or AWOS-C is set to broadcast the One-Minute-Observation (OMO), then the telephone broadcast is not affected by issuing a COR. Weather observers and/or LAWRS controllers should generate a new observation (GENOB) instead of issuing a COR if the COR was not to correct “fat fingering”, typos, or misspelled contractions etc. Instead of issuing a COR, generating a new observation may also use fewer key strokes and be faster.

*Note: Air Traffic facilities now have the option to set the ASOS or AWOS-C to broadcast the LTO or the OMO. See FAA Order JO 7900.5D, Appendix I.*

(Submitted by AJT)

**Automatic Terminal Information Service (ATIS)**

A recent Air Traffic Safety Oversight (AOV) audit focusing on facility compliance with requirements relating to Automatic Terminal Information Service (ATIS) revealed numerous non-compliant areas.

Facilities audited did not maintain an ATIS message that reflects the most current arrival and departure information in accordance with FAA Order JO 7110.65, paragraphs 2-9-2, Operating Procedures, and 2-9-3, Content.

A few specific non-compliant audit items include:

- Auditors observed noncompliance with shortened runways in accordance with FAA Order JO 7110.65, paragraph 2-9-3 h.
  - Specifically, the facility did not broadcast the available runway length, as stated in the NOTAM; the available runway length in the ATIS broadcast was longer than the actual landing distance available.
  - Facilities did not ensure the word “WARNING” prefaced the runway number, nor was the word “shortened” included in the broadcast when a runway was shortened.

- Facilities omitted Runway Condition Codes (RwyCC) as per FAA Order JO 7110.65, paragraph 2-9-3 i

- Facilities failed to include taxiway closures that affect the entrance or exit of an active runway. FAA Order JO 7110.65X paragraph 2-9-3 g

- Auditors observed that when there was a change in pertinent data, specifically new NOTAMS, the ATIS broadcast did not include equipment outages. FAA Order 7110.65X 2-9-2 a 3
The identified ATIS audit discrepancies are serious and could possibly lead to a significant surface event or worse. Facilities must ensure that they consistently follow the ATIS guidance outlined in FAA Orders JO 7110.65 and JO 7210.3.

As a reminder:

ATIS is a continuous broadcast of recorded non-control information in selected terminal areas.

Facilities must ensure ATIS message content is complete, accurate, and contains the proper information related to the following items:

- Rwy closures and available length (in feet).
- Most current arrival and departure information.
- Ensure the word “WARNING” prefaces the runway number and the word “shortened” is included in the broadcast when a runway is shortened.
- Ensure Runway Condition Codes (RwyCC) are included if the Airport Authority provides them.
- Taxiway Closures
- Pertinent remarks

(submitted by AJT)