Stabilized Approach and Landing

Focusing on establishing and maintaining a stabilized approach and landing is a great way to avoid experiencing a loss of control. A stabilized approach is one in which the pilot establishes and maintains a constant angle glidepath towards a predetermined point on the landing runway. It is based on the pilot's judgment of certain visual clues, and depends on the maintenance of a constant final descent airspeed and configuration. Whether you're a CFI, a student pilot, or anything in between the GAJSC's Loss of Control Working Group has some teaching points to help brush up on stabilized approach and landing techniques.

One area where airmen seem to be experiencing loss of control is while flying in the pattern. A key factor may be crossed flight controls exacerbated by the effect of wind during the turn from base to final. Pilots tend to over shoot the extended centerline and increase bank to realign with the runway. This bank is combined with increased back pressure which is needed to maintain the desired descent rate. The increased bank and back pressure can put the airplane dangerously close to exceeding the critial angle of attack.

To prevent this there are a few things we can do. Create your own personalized guidelines for a stabilized approach based on your skill and your aircraft (i.e. approach speeds, wind limits, a predetermined point to be stabilized on final). Next, take care to note the winds around the airport and consider how they will affect your pattern and approach. Also, try to get the aircraft properly configured for landing as early in the approach as practical. Next, try to focus on making small corrections to get on and stay on final. Also, set a point on the approach by which time you should be at a predetermined speed and altitude. Finally, if something's not right, at any time, GO AROUND! There's no shame in going back up to take another shot at it.

Tips:

- Pay attention to the wind in traffic pattern operations, especially on the base to final turn.
- Adjust your stabilized approach guidelines to your type of aircraft based on manufacturer's guidance.
- Aircraft should be configured for landing at some predetermined distance from the airport or altitude, after which only small corrections to pitch, heading and power setting should be made
- If not stabilized, go around!

Reference:

- Airplane Flying Handbook
  http://go.usa.gov/b8E5