

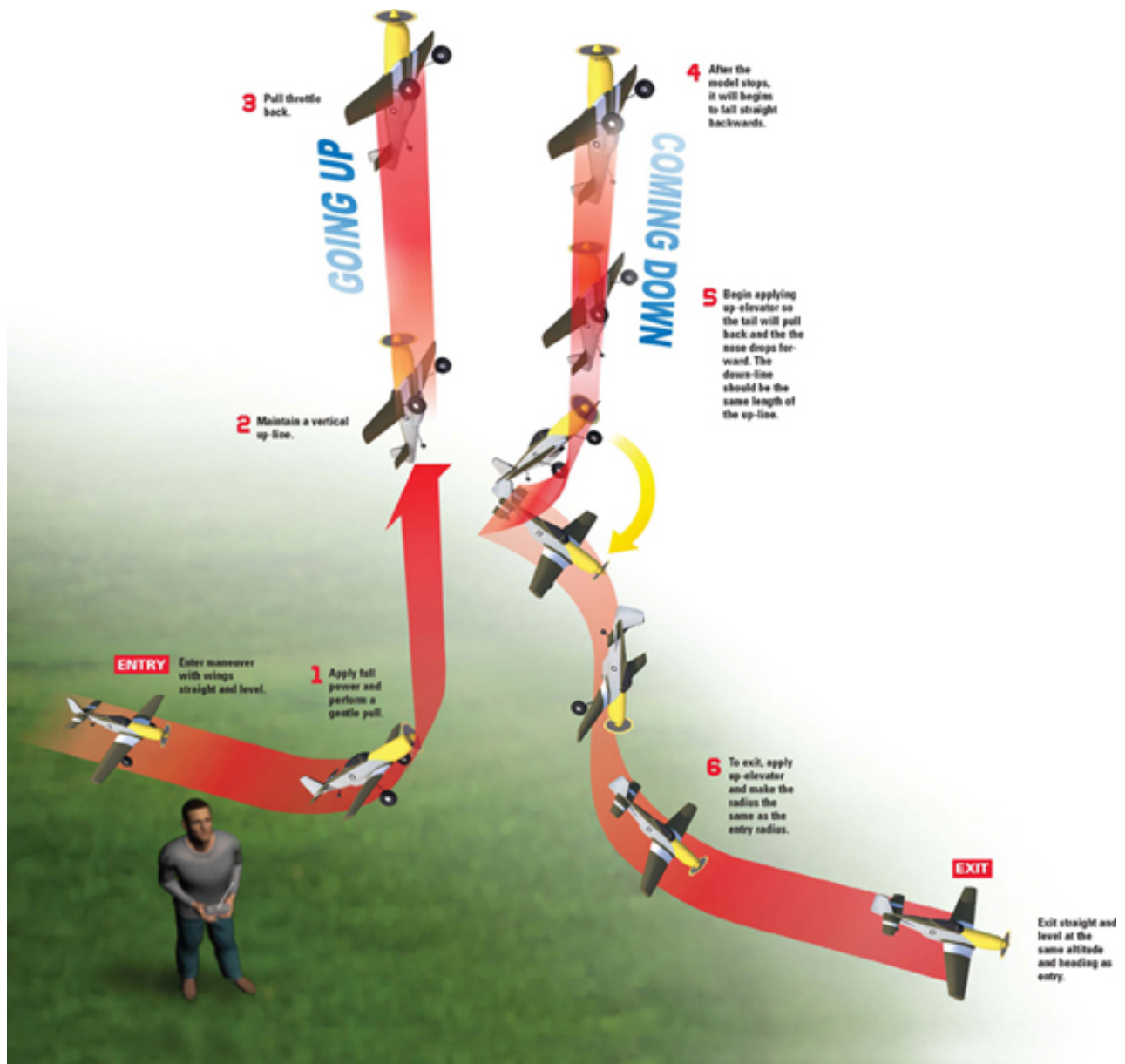
# Master the Tailslide

Jul 11, 2012

by Debra Cleghorn



A typical tailslide begins from upright level flight parallel to the runway. The pilot then applies throttle and performs a  $90^\circ$  loop to enter a vertical up-line. After the vertical line is established, the pilot gradually pulls the throttle back to idle. The aircraft will slow down and eventually will come to a stop. At that point, the pilot will either apply either full up-elevator to perform a “wheels down” tailslide, or push full down-elevator to perform a “wheels up” tailslide.



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To perform the “wheels down” tail-slide, simply apply full up-elevator when the model begins to slide back. This will make the model fall with the wheels pointing towards the ground. If you want to perform the “wheels up” tailslide, apply full down-elevator when the airplane begins sliding back; this allows the airplane to

fall over with its wheels pointing toward the sky. In competition aerobatics, the distance that the airplane must fall backwards must only be a visible amount. Also, when the aircraft slides backwards, it will often “pendulum” past the vertical after falling through. This “pendulum” effect is completely normal and should not be considered a downgrade.

While this may seem like a fairly simple maneuver to execute, it takes a lot of practice to perform consistently. Also, different factors exist that will make this maneuver more challenging to perform. For example, if wind is present, it becomes more difficult for the model to slide backwards while holding the vertical up-line. The model may want to angle itself into the wind. If you find that after performing this maneuver a few times, you’re having difficulty getting the aircraft to slide back, you may need to move the center of gravity back (make the model more “tail heavy”). However, always remember to add tail weight in moderation, as an extremely tail-heavy model can become very unstable in conventional flight.

## **DOWN TO BUSINESS**

The tailslide shown in this column is a wheels-down version and is being performed parallel to the runway, from left to right.

1. While flying parallel to the runway and making sure that your wings are level, increase the throttle to full power. If your airplane does not have a great power-to-weight ratio, pull into the  $^{\circ}$  loop gently to establish the vertical up-line.
2. The length of the vertical up-line is entirely up to the pilot. However, keep in mind that larger maneuvers often look better than smaller ones. Also, the length of up-line varies depending on your aircraft’s size. Regardless, keep in mind that you may need to apply various rudder corrections to keep the model tracking on a perfectly vertical up-line.
3. Begin pulling the throttle back until the airplane comes to a stop. If the airplane is on a perfectly vertical up-line, the aircraft will begin to fall backwards. With the “wheels-down” tailslide, you apply full up-elevator to guide the model’s tail back and away from the vertical down-line. After the aircraft rotates its nose will fall forward. When it nears the vertical down-line, release all elevator input.
4. The length of the vertical down-line should to be the same length as the vertical up-line.
5. To exit the maneuver, begin the final  $^{\circ}$  inside loop by applying up-elevator and make sure that its radius is the same as the entry radius. As the model nears horizontal upright flight, increase power to keep the airspeed constant.

Even though the fundamentals of performing the tailslide are fairly easy,

depending on the wind conditions, this maneuver can be challenging. Don't become discouraged if you cannot perform this maneuver during your first few attempts. Always practice, and if you still find difficult to perform, gradually add some tail weight and take a closer look at your aircraft's control setup. Until next time, safe flying and always remember to have fun!

BY JOHN GLEZELLIS