Immelmann Turnaround

Combining Loops and Rolls
In this section: F-42 illustrates the basic *Immelmann* turnaround sequence that will make your flying easier overall.

Example: An ordinary left or right *procedure turn* moves the plane away from the ideal parallel line that you worked to establish prior to the turn. You then have to make several adjustments after the turn to reestablish that line coming back. As a consequence, you have less time to think about your next maneuver and end up feeling rushed. But the Immelmann allows you to do a 180° turnaround without changing your line of flight, albeit finishing higher.

F-43 stresses the importance of a wings level parallel line entry into the Immelmann and performing it further out to grant more time afterward to setup and prepare for the next maneuver at show center.

F-44 illustrates treating the Immelmann as two separate parts: A half loop, and then a half roll to upright, with a return to neutral between them to help ensure that the roll will be axial and not *barreled*.

F-45 illustrates the tendency to become slack toward the *amount* of up elevator used in the half loop, causing it to become so large and slow at the top that the plane cannot be rolled without wandering off heading (thus providing a wake-up call to the importance of applying consistent inputs)!

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**Immelmann Turnaround**

Turning around with a normal *procedure turn* takes the plane away from the ideal line, and requires more work afterward to return to the ideal line coming back.

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**KPTR:** When entered with the wings level, an Immelmann will effect a turnaround without changing your line of flight.