

You have now completed the setup of the Blade, so let's talk about flying this model. Well, let's fire up that turbine and go through a flight.

Start by back taxiing to the takeoff position. Use this time to accurately adjust the rudder trim to obtain a straight taxi in preparation for takeoff. High rate rudder is used for the turn around to line up on the runway for takeoff, and then go back to low rate steering prior to takeoff. Set the elevator at high rate for normal flying, ailerons at low rate. Now hold the brakes, spool up the turbine, release the brakes and go. Notice how straight the Blade travels on the takeoff roll; steering corrections are precise and predictable. The 25% Expo setting on the rudder at high rate allows one to takeoff at high rate, especially useful when facing a strong crosswind takeoff.

Full up elevator can be used on for rotation on takeoff without fear of leaving the ground at too slow an airspeed, but do release some elevator after lift off to allow the Blade to accelerate to a comfortable flying speed. The ground roll normally is about 200 foot with an 18 lb. thrust turbine. Retract the landing gear and let's have some fun.

Aerobatics with the Blade can be done at all speeds from its highest speed down to some pretty low airspeeds. The CG and control throws have been setup to allow smooth control throughout the speed range. The flat bottom wing does not allow outside looping maneuvers at all but the higher airspeeds. Inside looping maneuvers however, are incredible.

This wing can really make some lift as the angle of attack increases. The Blade can be safely inside looped at airspeeds as low as 70 mph with these control settings, loop diameters will be about 100 foot. The Blade is extremely stable, as the elevator is pulled hard during these slow speed aerobatics. Roll control remains solid even as we pull hard on the elevator.

Try some slow flight to become familiar with the Blade, pull the throttle back and slow this bird down. You can fly the Blade at about ¼ up elevator in slow flight with full confidence in your ability to roll the Blade with ailerons. As

you pull more up elevator in slow flight you will be amazed at how solid the model feels in all control axis. Be careful though, you can achieve a high enough angle of attack that the power of the turbine cannot overcome the drag of the wing at these higher angles of attack, the only way to regain your airspeed is to trade altitude for airspeed. High Alpha flight is the cool part of any delta wing aircraft, however the issue of drag increase with angle of attack becomes the pilot's responsibility to manage, and new flight regimes require new skills.

Now lets try some knife-edge flight. Let the Blade accelerate back to normal cruising speed and line up for some knife-edge flight. Roll the Blade over into the knife-edge position and feed in the rudder. Roll coupling and pitch coupling is minimal on the Blade, but be careful not to touch the elevator as it will instantly induce a strong roll coupling. An old rule of aerodynamics is for every 5 degrees of leading edge sweep we get the equivalent of 1 degree of dihedral, so with the extreme sweep of the Blade's leading edge you can see we have a large degree of equivalent dihedral. You enjoyed that effect in slow flight, but now we need to learn how to handle it during knife-edge flight. The Blade has rock solid knife edge flight characteristics so long as care is used not to input elevator control while in knife edge flight. Should you have difficulty with this issue try reducing the amount of rudder input, the full 1" travel is more than required to maintain altitude during knife-edge flight

This same pitch induced roll coupling requires we modify our slow roll and point roll techniques, do not apply both rudder and elevator inputs at the same time while performing slow rolls. This is not a major issue with the Blade as it does not require much elevator nor rudder inputs while performing slow rolls as we balanced the model earlier to optimize it for aerobatic flying.

Ok, we've done some aerobatic flying, we've done some slow flight, and it's now time for landing. The Blade is an extremely clean airplane and it takes some time to slow it down. I suggest a rectangular approach to landing with landing gear extension on the upwind leg. In downwind leg-pull in the drag brake rudders, it will cause a slight pitch up and the Blade will settle into a nice, nose high glide attitude. This attitude is designed to provide sufficient drag to allow a moderate

descent rate for accurate landing approach control. You should be able to carry some throttle thru the approach to landing, pulling all the way back to idle about 200 foot short of the landing point. Note you should not be holding much, if any up elevator during the approach to landing, we have trimmed the Blade through the use of the drag brake rudders to establish the proper glide speed for the landing approach.

Begin the landing flare about 200 foot short of the touch down target, at about five foot of altitude. The elevator response should be quite linear, however if it is not, or you are uncomfortable with the approach speed, try moving the CG forward in 1/8" increments. You can pull almost full up elevator while flaring to land, but watch out, too much and you can actually touch the tailpipe, hate to scratch that beautiful paint job. Nail a landing and with moderate braking it can be done in as little as 150 foot or runway, but expect an average landing with light braking to use up about 350 foot of runway, with practice of course. Good luck with your Blade and enjoy this nice flying model aircraft.