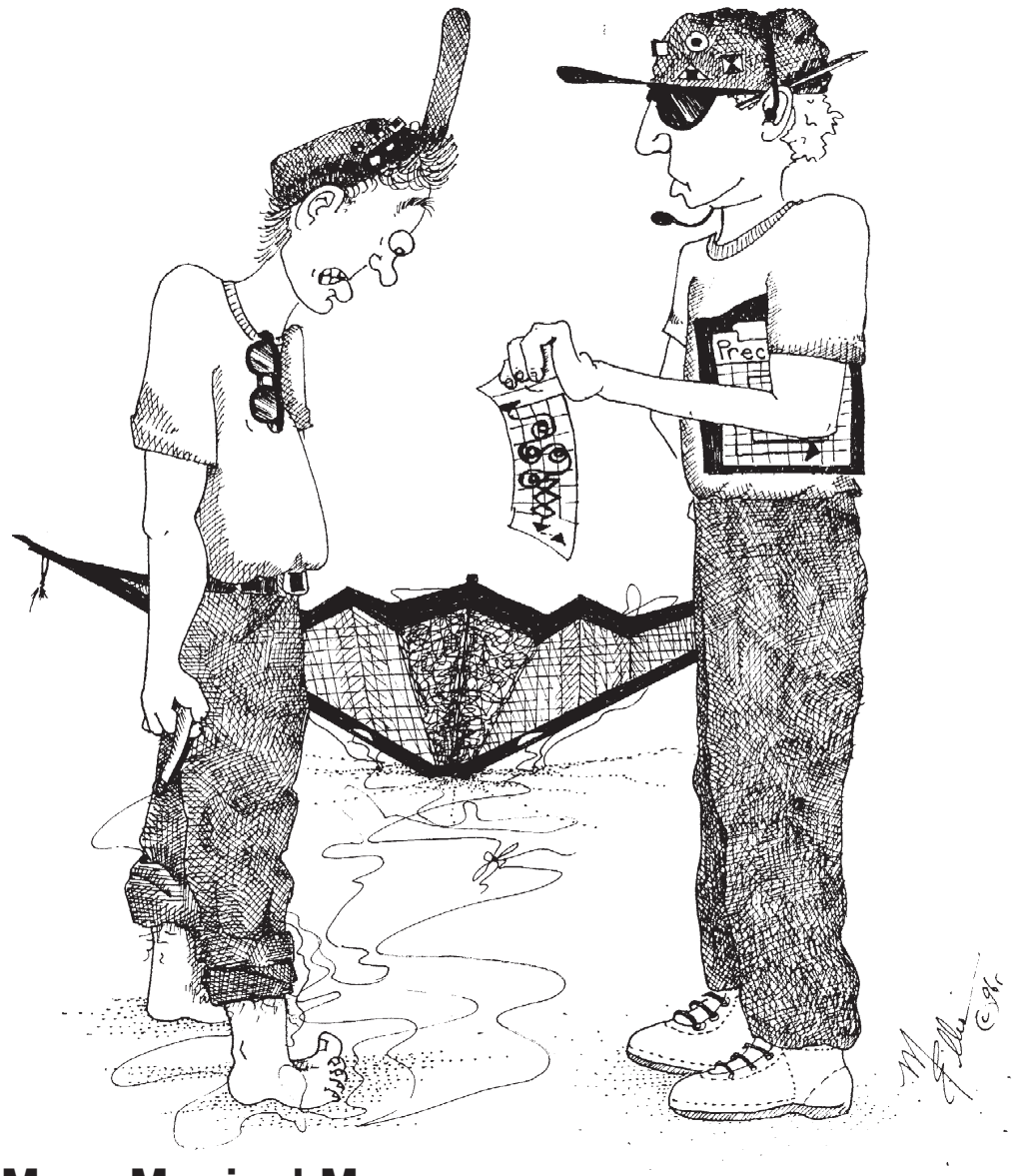


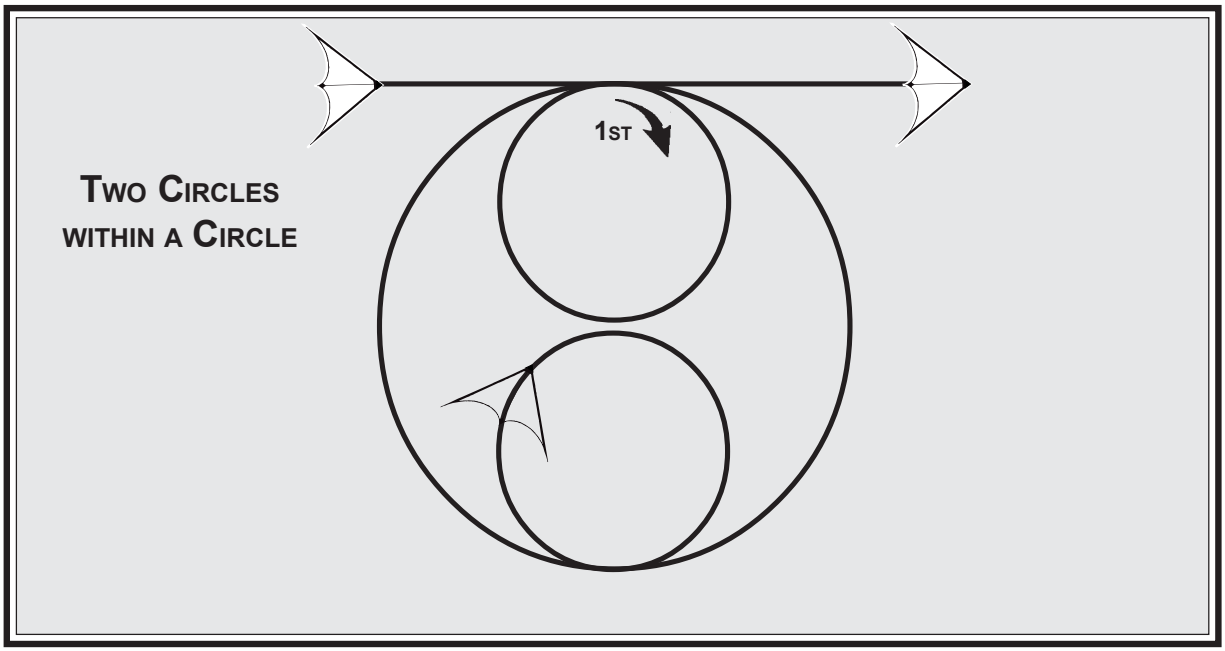
Chapter 5: More Magical Maneuvers: Advanced Precision Figures

Advanced maneuvers are made up from the same curves, angles, and lines as more simple figures. The difference is that there may be more of those turns, or that they may come closer together. Don't panic. Just because they are more complicated, doesn't mean they are more difficult. Just break the figures down into their easier components.

The secret to flying complex maneuvers well is to fly them slowly. Give yourself time to think and react. It's not like there is a time limit or anything.

The other secret is to study the illustrations carefully. Are lines the same length or loops the same size? Do you pass over the same point in the window repeatedly? Are several dives parallel to each other, or perpendicular to a horizontal pass?

Look for tools that you can use in the sky or on the ground. Clouds, trees, or even the posts marking your flying field can help you position figures. It's these small things that make your performance look "advanced".



Two Circles within a Circle: This is a good maneuver for pull turns. The key is smooth transitions between the small circles and the bigger one. Focus on an imaginary vertical center of the window and arrange all your flying around that line.

Remember to move forward as you dive, and back as you climb. Keep a steady, even pace throughout the entire maneuver, and don't be rushed. Remember that the larger circle will be flown through the entire range of wind changes in the window. Switching from smaller to larger arcs may tempt you to fly the smaller circles faster. Don't do it.

One common mistake is to fly the outside circle too narrow. Make it round, not oval.

Concentrate on flying both the smaller circles the same size and space them carefully. They can "touch" in the center of the window, but not overlap. If you form the top one too big, you'll end up with a noticeable spacing error.

Start with a high horizontal pass toward the left. Turn up and over to get high in the window, straighten your flight, and call "IN" about half way back to the center.

Maintain straight and smooth flight. When you reach the center of the window, pull with your right. Anticipate the turn so you can hit it right on the center line.

Fly the smaller circle first. Make it perfectly round, with the bottom arc passing just over the exact center of the window. Move forward on the dive, move back to increase power on the climb. As you return to the top, shift into the larger circle. Your objective is a smooth transition with no bumps, angles, or jerks. Just ease up gently on your pull turn.

Shorter lines are great for trick flying, but make precision more difficult. They speed up a maneuver dramatically. They also make the window smaller, which reduces the size of competition figures. Many judges don't tend to notice line lengths, which means that if you fly a smaller figure because you're using shorter lines, you may lose points even if you fly it well.

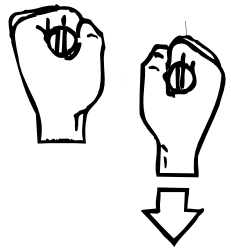
To keep the outer circle properly rounded, fly well out to the right. Notice that the outside edges of the big circle are as far left and right of center as where you start and finish the maneuver.

As you return to the centerline at the bottom of the window, prepare to fly the second small circle. Again, anticipate the turn so you can hit it right on the center line and directly below the first one. Now, focus on making the bottom circle exactly the same size as the upper one. The top should be just below the exact center of the window.

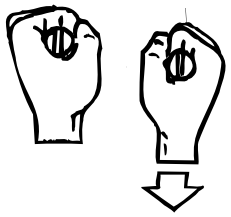
As you fly under again, ease out to complete the second half of the big circle. Move back during this long arcing climb. Then as you return to the top of the window, intersect the highest point of the smaller circle at the vertical center of the window and straighten out by bringing your hands together.

Make your exit pass the same length as your entrance, and call "OUT".

Keep Transitions Smooth

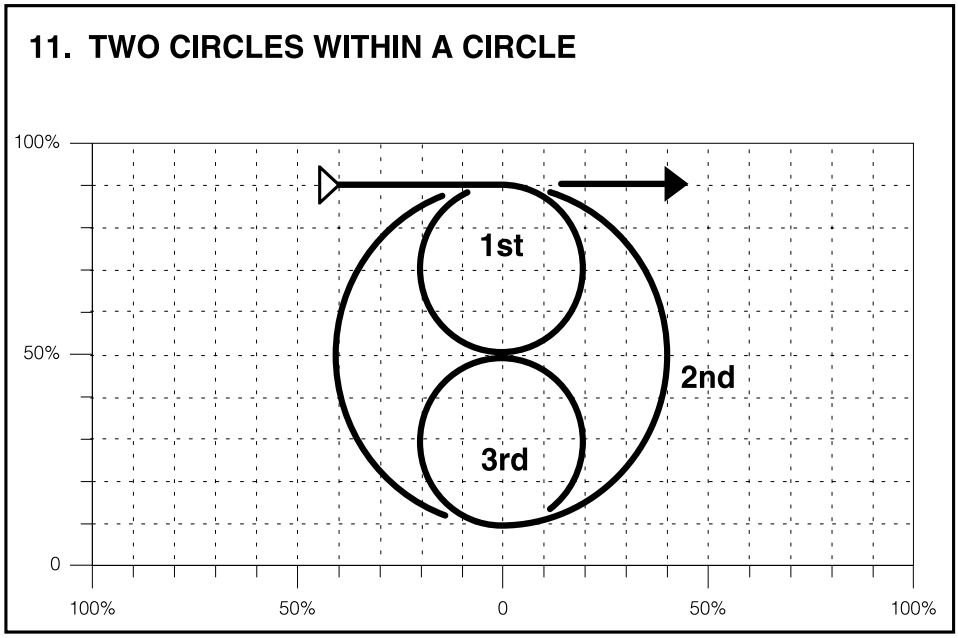


Pull-Right for the Small Circle

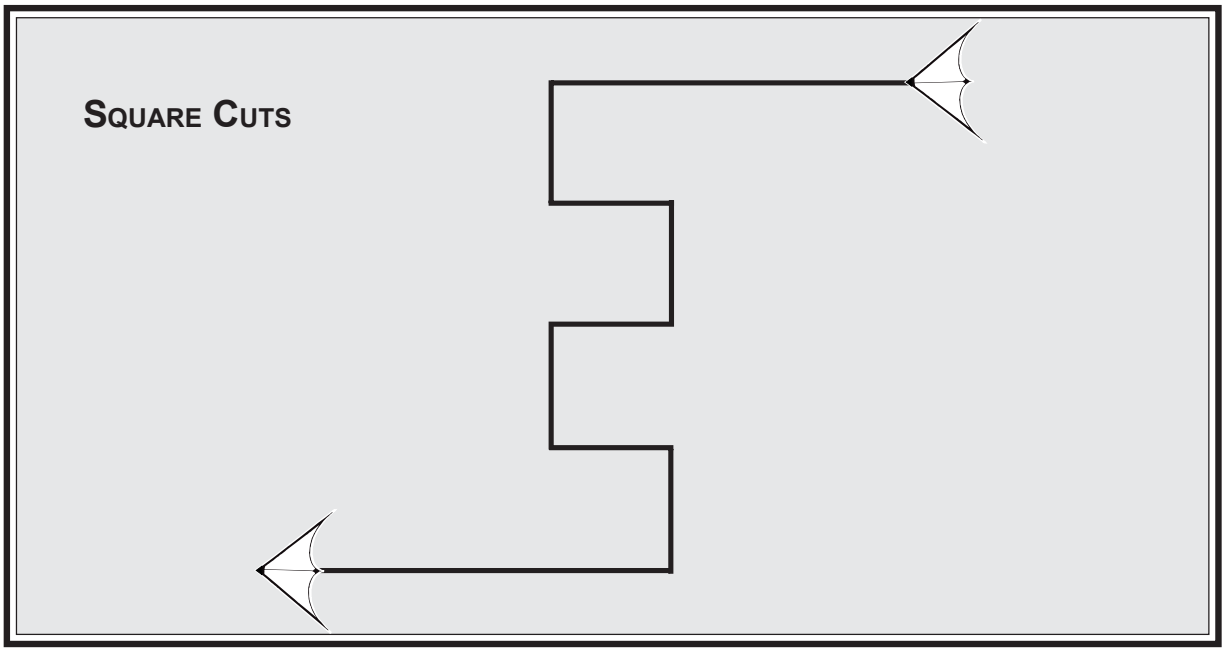


Pull-Right Less for the Big Circle

11. TWO CIRCLES WITHIN A CIRCLE



Competition Spacing: *IN and OUT are called forty percent from the center of the window at an altitude of ninety percent. The small circles have a diameter of forty percent. The large circle has an eighty percent diameter. The bottom of the large circle is ten percent off the ground. Note that IN and OUT are called at the same distance from center as the extreme outside edges of the large circle.*



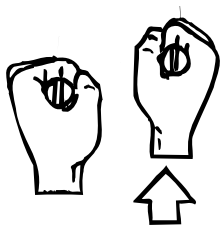
Square Cuts: This is the kind of maneuver that you can't think too hard about. It contains eight quick sharp corners. Everything happens too fast. Watch the kite and turn; watch and turn again. If you blink, you'll miss something important.

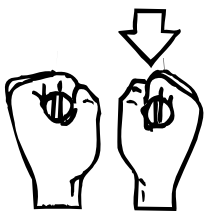
In stronger winds, you will need to move forward through the whole maneuver to slow things down to a manageable speed. Most of the turns come in the center of the power zone. In lighter winds, you may need to move back to generate enough pressure for sharp turns.

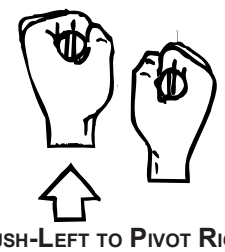
Notice that all of the lines, except for the entrance and exit, are the same length. Each "box" has the same height and width, so divide the height of your window into four parts, and make each step that size. But remember that your kite will fly vertical lines much faster than horizontal ones. This means you will need to anticipate and react faster when you push from horizontal.

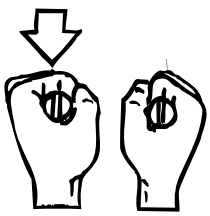
Start with a vertical climb on the outside right edge. Turn in at the top and stabilize your flight. Because you are at the edge of the wind, you may need to back up to generate more speed. When you are half way to the center, call "IN".

Have you divided the window in quarters so you know what size to make your steps? A common mistake is to make the first ones too large and to run out of space later.


Push-Right to Pivot Left


Recover and Fly Straight


Push-Left to Pivot Right


Recover and Fly Straight

Push-right for the first corner. The nose of the kite will pivot toward the ground. Hesitate for a micro-second, and then push-right again. This will turn you back to the right on your first short horizontal pass. Anticipate, and then push-left. You have just finished your first box. Only three more to go.

Quick! Push-left to go horizontal. If you are on track, this pass will fly through the direct centerpoint of the window. If you are too low, you better start worrying about hitting the ground.

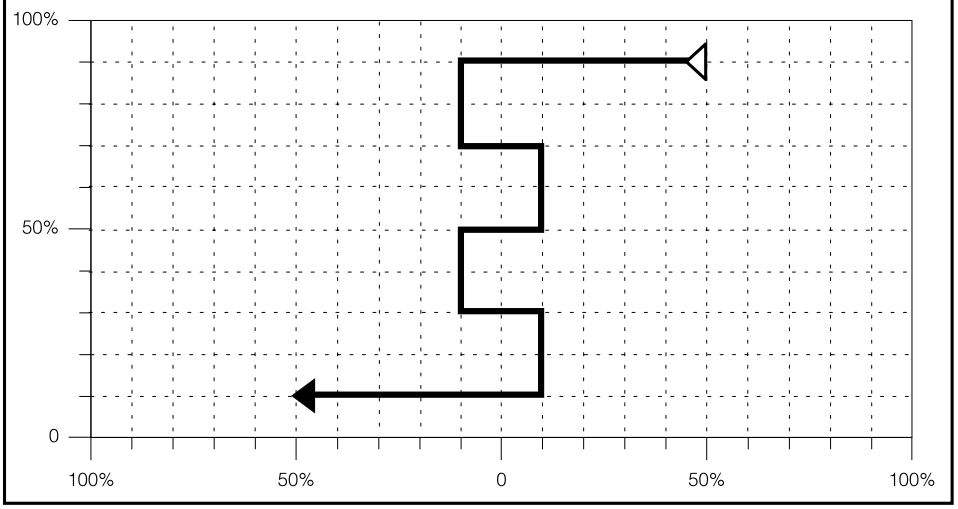
Anticipate. Your objective is to turn vertical on the same line as your first dive. Now push-right. Hesitate, and push-right again to go horizontal.

This is the time when you need to decide if you are in position, or flying too low. If you're in position, then two more left push-turns will complete the final box. But if you are too low, consider an extra hard push that will reverse your direction. Better to mess up the spacing of the bottom box - or even eliminate the corners all together, then to crash and lose all points. Worse yet, you might damage your kite. Better decide fast!

Your final push should turn the kite toward the left side of the window. Focus on flying straight and smooth again. Think about your speed. Maintain a slight tension on the upper flying line to offset the kite's tendency to drift toward the ground.

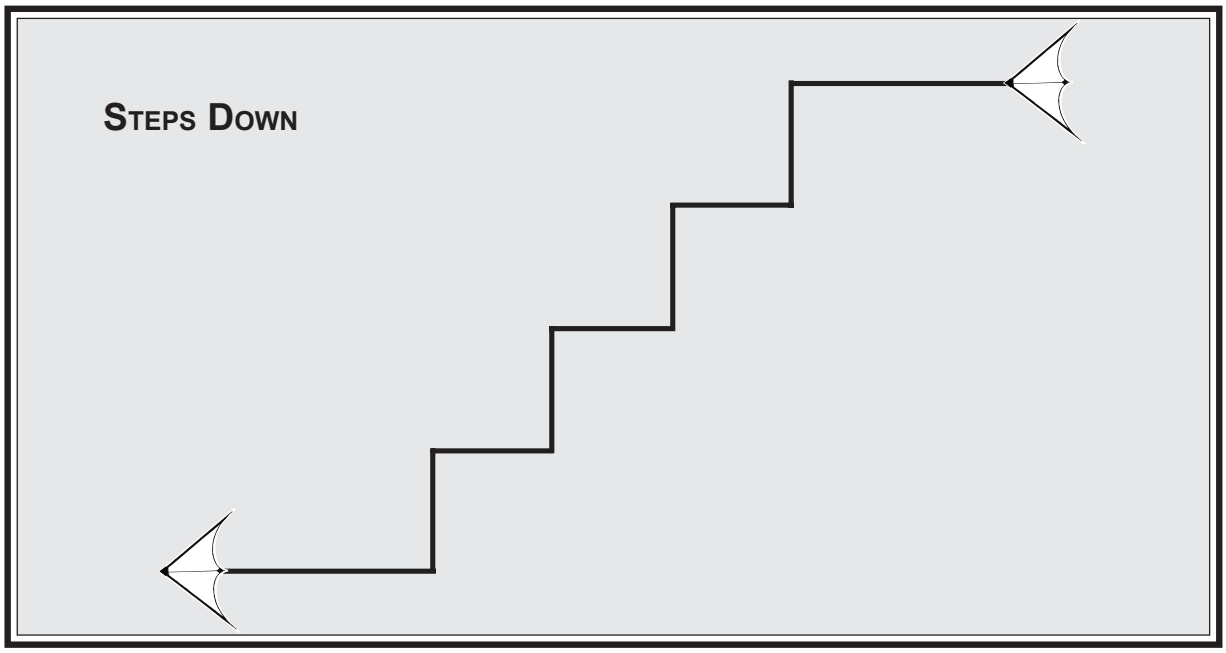
Fly out, half way to the left edge, and call "OUT".

12. SQUARE CUTS



Competition Spacing: *IN is called fifty percent right of center at an altitude of ninety percent. The first step down is ten percent left of center. Each subsequent line is twenty percent high or twenty percent long. The midpoint of the third horizontal is the exact center of the wind window.*

The final horizontal is sixty percent long. OUT is called fifty percent left of center at an altitude of ten percent.



Steps Down: Hopefully, by now, you are beginning to develop quick flying reflexes. You're going to need them. This maneuver continues to dive and turn right through the center of the power zone. To do it right, you'll require eight sharp corners in a very short period of time.

Each step has the same height and width. So divide the height of your window into four parts, and plan to make each step that size. Be prepared for wind and gravity to force your kite down and stretch out the vertical dives. Anticipate each turn and begin a moment early, so you can turn right on the mark.

Start with a vertical climb on the outside right edge. Turn in at the top and stabilize your flight. Because you are at the edge of the wind, you may need to step back to generate more speed. When you are about a third of the way to the center, call "IN".

Have you divided the window in quarters so you know what size to make your steps? A common mistake is to fly the first ones too large and to run out of space later.

Push-right for the first corner. The nose of the kite will pivot toward the ground. Hesitate for a micro-second, and then push-left to go back to horizontal. Anticipate, and then push-right again. The turns will come almost too quickly to think about.

Count off each step as you complete it. If you are on track, the third horizontal leg will pass through the direct centerpoint of the window. Two more to go.

Be careful when you are close to the ground, and whatever you do, don't crash.

A "crash" is defined as a collision with the ground which brings the kite to a full stop. Wingtip scrapes, unintended midair stalls, and ground maneuvers that never get off the ground are problems -- but technically not crashes.

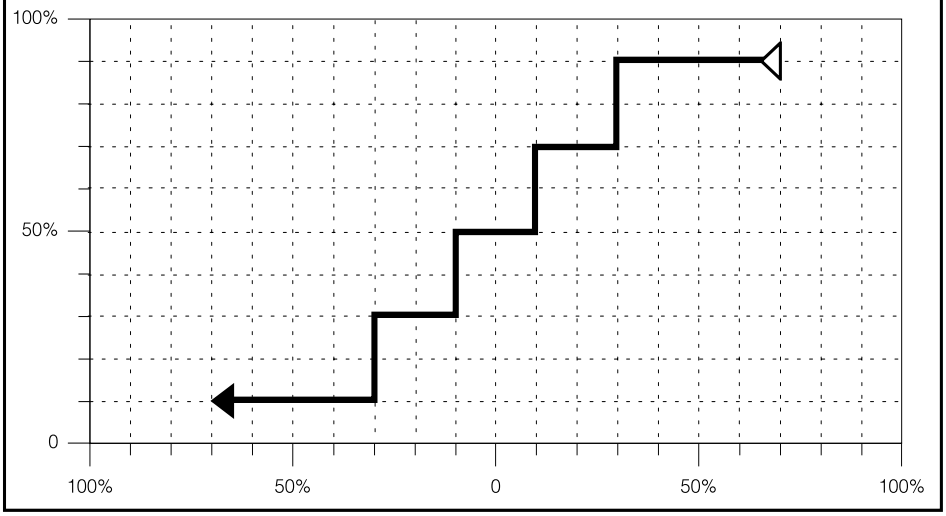
In a precision competition, a crash results in a zero score. Other unintentional ground contact also results in a penalty, but a much smaller one.

Many precision maneuvers place you uncomfortably close to the bottom of the window. Practice to gain confidence and skill in low altitude passes. Be prepared for lulls in the wind or bumps in the terrain that reach up and grab at your kite. Learn to avoid ground contact unless you are planning to land.

Push-right - hesitate - push-left. Push-right - hesitate - push-left. Finish the fourth step and turn horizontal just above the ground. Resist the temptation to turn again.

Keep your flight straight and smooth now. Fly out to one third from the edge, and call “OUT”.

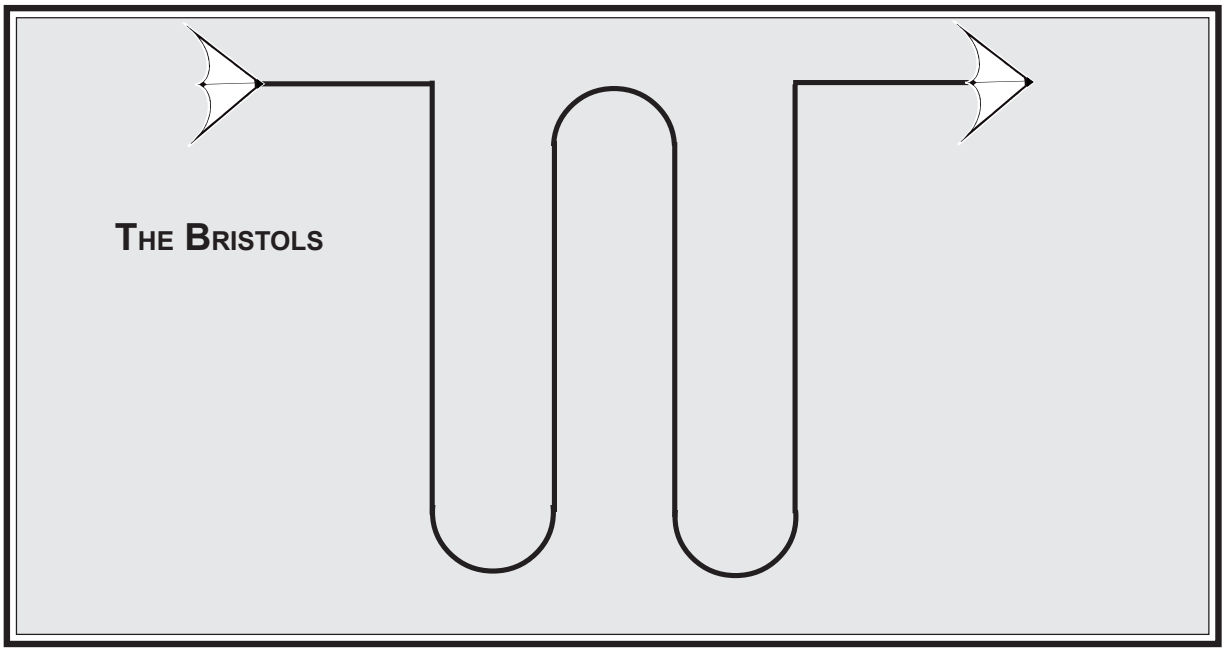
13. STEPS DOWN



Competition Spacing: *IN is called seventy percent right of center at an altitude of ninety percent. The first step down is thirty percent right of center.*

Each subsequent step is twenty percent high and twenty percent long. The midpoint of the third horizontal is the exact center of the wind window.

The final horizontal is forty percent long. OUT is called seventy percent left of center at an altitude of ten percent.



The Bristols: Here is another opportunity to combine push-turns and pull-turns into one maneuver. Remember, push for angles, pull for curves.

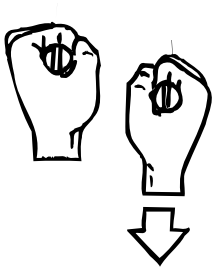
Notice that all of the vertical lines are equal distance apart. Also notice that the center turn is at the same altitude as the entrance and exit passes. It's common on this maneuver to fly the middle turn too low, or to make the vertical lines too close together. Be careful, also, not to oversteer on any of your curves.

Start with a horizontal pass from the right side flying out to the left edge. This will give you one last chance to check the speed of the kite and put you in the best position to begin the maneuver. Turn up and over to start the high pass back to the right. About half way to the center, call "IN". Make sure you are flying straight and right at the top of the window.

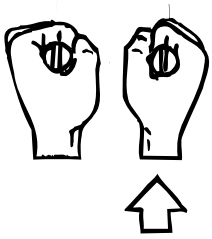
About a one-fourth of the way out from the center, push-left. Make it a good, crisp, ninety-degree corner.

Once you turn, start to move forward and slow the kite's speed. If you have started on a straight line, all you need to do is keep your hands even. Concentrate on maintaining the same pace that you started the maneuver with.

Three fourths of the way through the dive, stop moving forward. Tension the flying lines and store some power for the turn that is coming. Then, as you approach the ground, pull with your left hand to start the turn. As you come about, pull even with your right hand and step back. Use that extra thrust to climb vertically. Remember, pulling powers you into the turn, pulling again powers you out of it.



Pulling Right Powers You Into the Turn



Pushing Right Reduces Power and Returns You to Straight Flight

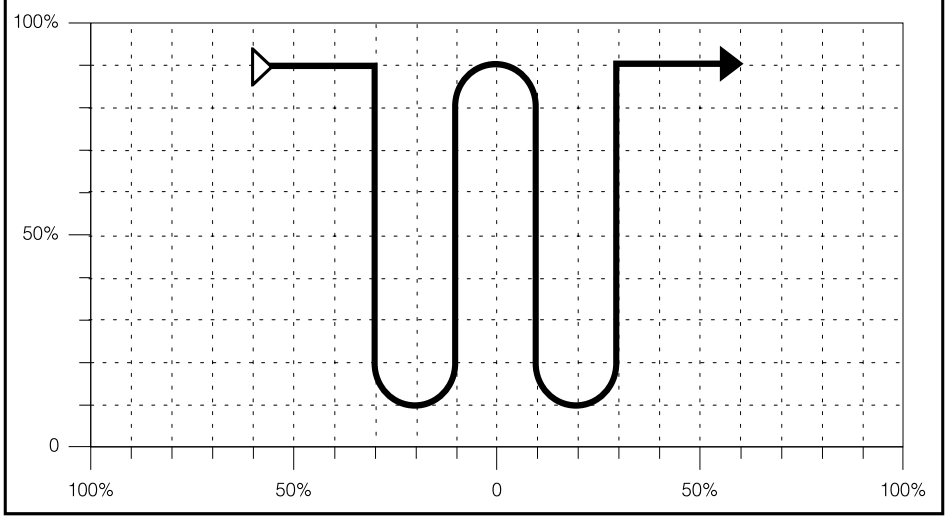
Be careful not to oversteer. Start releasing from the turn before the spine of your kite has come perpendicular to the ground again. Make sure that your vertical climb is exactly parallel to the vertical dive.

The next turn comes high in the sky, so continue to step back as you climb. Move fast enough to maintain thrust, but not so fast that your kite is flying faster than in the dive. Then, as you approach the top of the window, begin your pull-turn to the right. Continue to step back to maintain power. The peak of the turn should be on the direct centerline of the wind window.

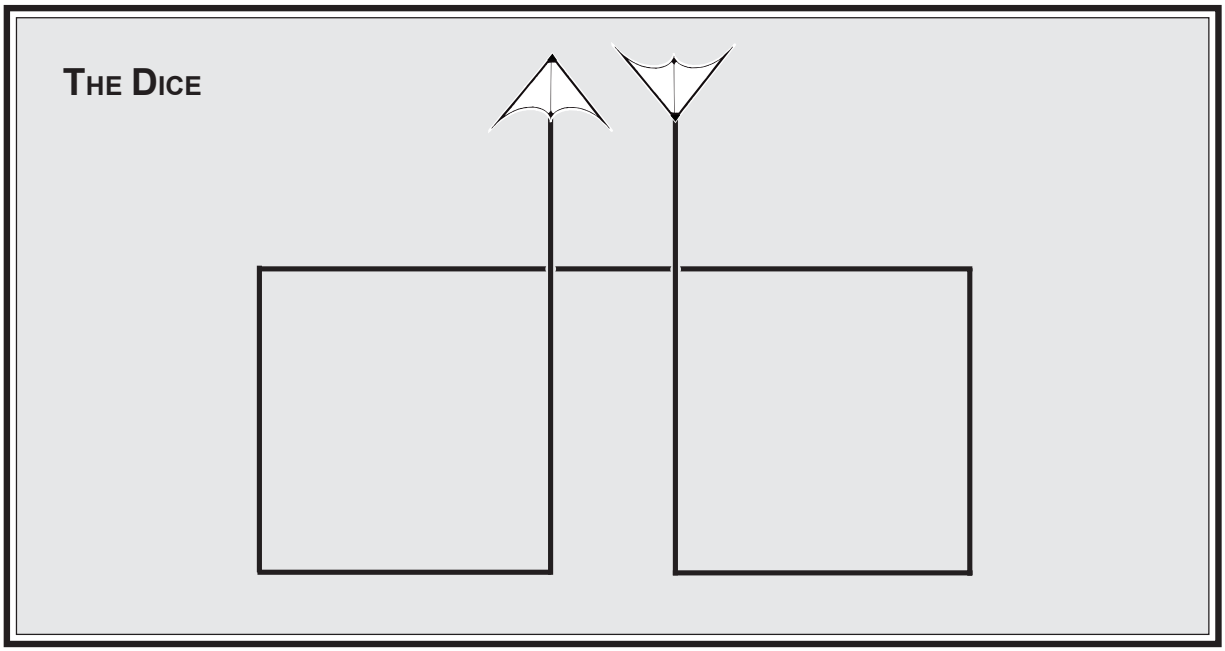
When you come over the top, begin to move forward again. Instead of pulling left to straighten, try pushing right. This will reduce power as you start to dive. At the same time, you can step forward to slow the kite and maintain the same pace as in the climb. Now all you need to do is fly another turn near the ground, exactly like the first one. If your spacing is correct, your final vertical climb will be a fourth of the way right of center.

Fly back up to the top of the window, and when you are level with your first horizontal pass, push-left to turn right. Continue your straight flight and as you reach the halfway point to the edge, call “OUT”. Now catch your breath, and after the event, go ask the judges if they know why this maneuver is called the Bristols. It’s an interesting story.

14. THE BISTROLS



Competition Spacing: *IN and OUT are called forty percent from the outside edges at an altitude of ninety percent. Corner turns are each thirty percent from center. All vertical lines are twenty percent apart. The reverse turns are ten percent high and twenty percent wide. Bottom turns are both ten percent off the ground. The top turn is at ninety percent altitude, and peaks directly on the centerline of the window.*

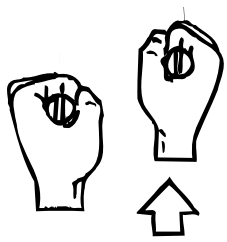


The Dice: That top horizontal pass goes a long, long way across the window and right through the power zone too. Close to the ground, you have a reference point for long passes. But higher in the sky, you need to concentrate to keep them straight.

Look closely at the proportions of the figure. The bottom horizontals are the same length as the side verticals. That's the key to keeping the boxes square. Also notice that every corner in the figure is a turn to the left.

Start high on the left edge. Fly straight across the top of the window and then turn down just right of center. Snap the kite toward the ground and call "IN".

Track straight toward the ground. As in any vertical dive, your objective is to minimize any side movement and pace yourself. Move in to reduce speed.

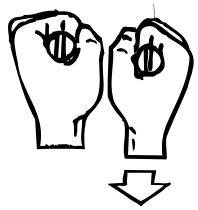


PUSH-RIGHT FOR 90 DEGREE LEFT TURNS

As you approach the ground, prepare for the best ninety-degree corner you have ever flown. Anticipate the turn, then punch your right hand forward. The result you want is a sharp corner that will send the kite back toward the right side of the window with the bottom wingtip just above the ground. If you need to increase speed near the ground, move back.

Fly out just beyond the center of the right side of the window and prepare to punch the kite into another vertical. Make a careful mental note of the length of this ground pass. Then punch again with your right to pivot the nose of the kite up and fly the exact same distance before you turn again. You've got this first box nailed!

Now you have to deal with that long horizontal pass. Keep your hands steady to avoid any shaking or “wobbles”. As you know, gravity always tries to pull you toward the ground on long passes. Maintain a slight “up” pressure by holding your right hand slightly back from the left. Use your feet to adjust speed as you move in and out of the power zone.

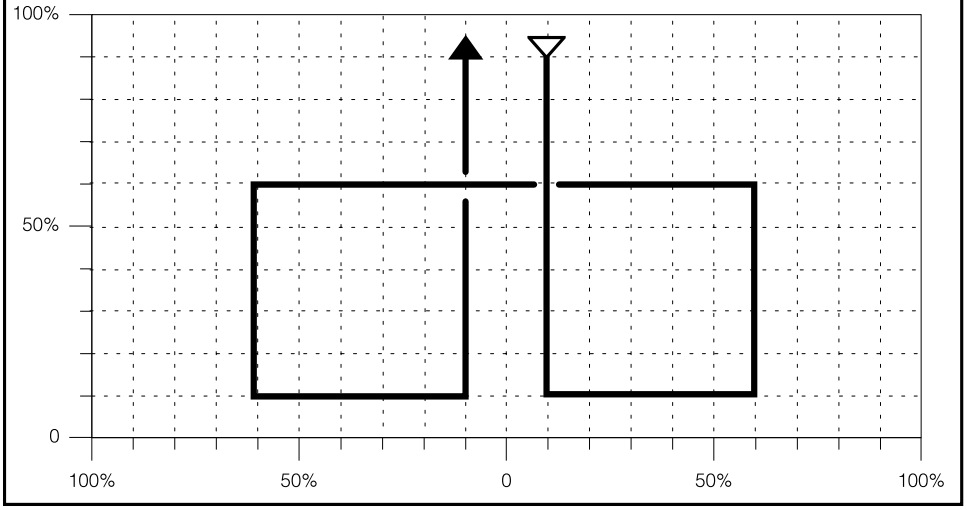


Hold Back Slightly on the Right to Maintain a Level Horizontal Pass

When you have flown just past the half-way point on the left side of the window, push-right to turn down. This second box should mirror the first one. Just remember to keep all of your lines the same length as that first horizontal pass. Turn left, just above the ground. Then turn left again as you approach center. Move forward during dives, move back during passes and climbs.

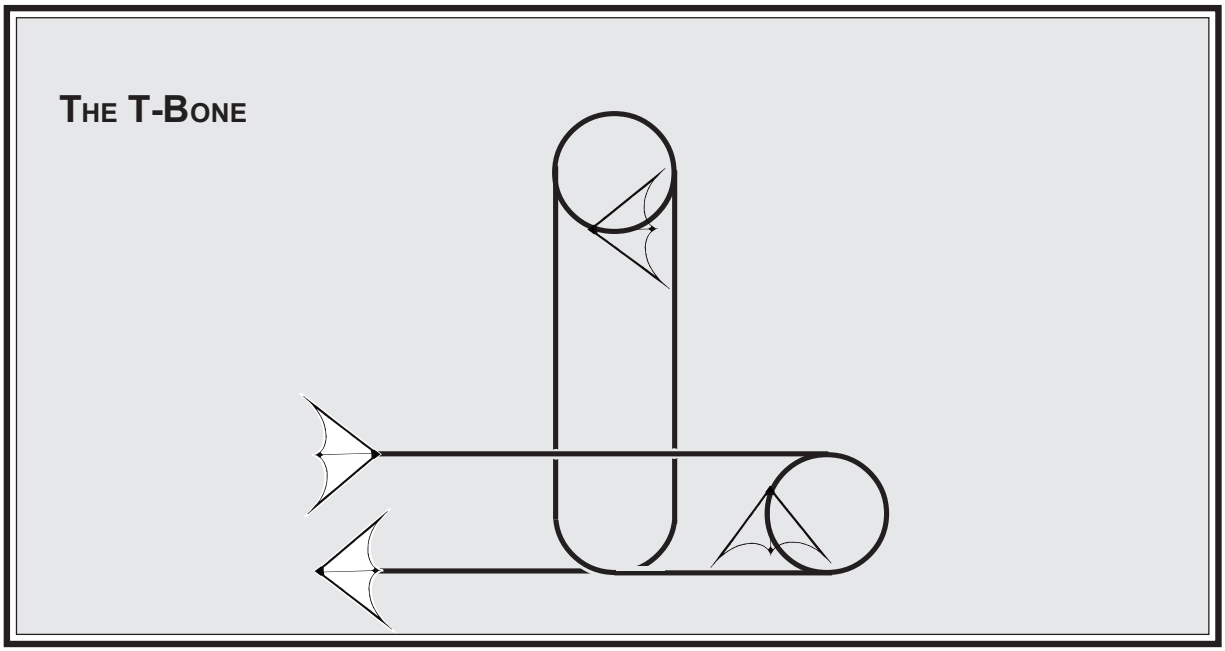
The final climb is parallel to the dive you used at the beginning of the maneuver. Don’t rush things now. Maintain your pace right through to the top of the window. When you get there, call “OUT” and turn to either the left or right.

15. THE DICE



Competition Spacing: *IN and OUT are called at an altitude of ninety percent. Inside vertical lines are ten percent from center. Outside verticals are sixty percent from center.*

Lower horizontals are ten percent off the ground. The long horizontal is sixty percent above the ground.



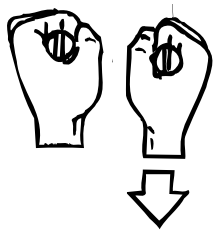
The T-Bone: This is a busy figure with lots of short passes and right turns. Fly the horizontal part first, then turn up for the vertical part which is right in the middle of the window.

Notice that the two circles require you to actually fly one-and-a-half revolutions. Take them slow and be careful not to oversteer. Watch the nose of your kite and anticipate when to pull out.

Start with a long ground pass from the right. At the left edge of the window, pull-right to curve up and over. Try to position your kite at an altitude of about one-third and straighten out as you fly back. Call “IN” half way to the center.

Keep parallel to the ground as you pass through the middle of the window and prepare yourself for the first turn. A third of the way past center, pull-right and begin your revolutions.

It’s important to remember that these are not true spins, but instead, small circles. Don’t be tempted to turn your kite on its wingtip. Trace the outside edge of the turn a second time as you come around and prepare to start your second horizontal pass.



PULL-RIGHT THE SAME AMOUNT TO KEEP CIRCLES AND CURVES IDENTICAL IN SIZE

The second pass is short and close to the ground. Move back to compensate for the lighter winds there. Then start to curve up at exactly the center of the window. Pull-right with the same force that you used in the circle, but ease out of the turn quickly to produce a smooth arc that sends your kite straight up and perpendicular to the ground.

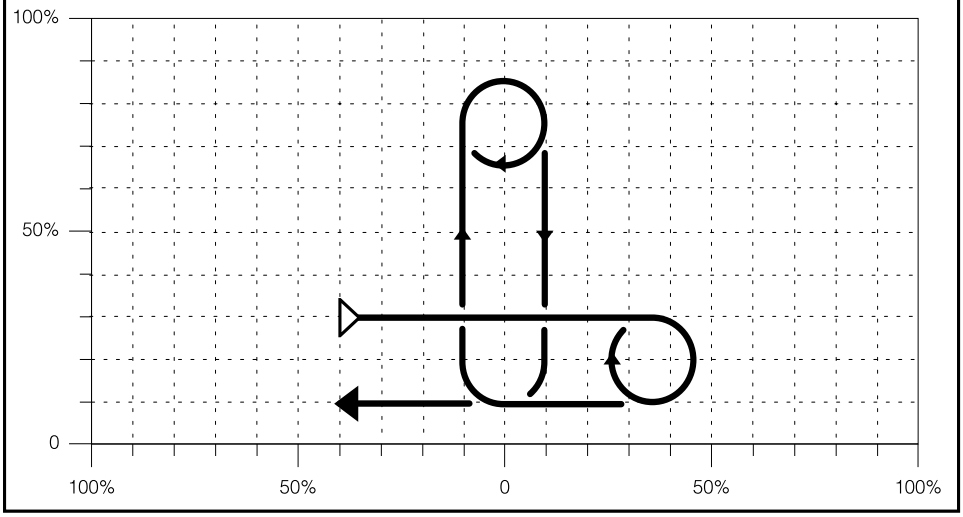
Call IN and OUT as loudly as you can. These calls are designed to tell the judges where you think a maneuver begins and ends, so let them hear you. And remember, since IN and OUT define a maneuver, calling them in the wrong place is as bad as turning in the wrong place.

Keep moving back to maintain a constant speed as you climb. As you approach the top of the window, begin your second circle. Proportions here are tricky, but it may help to remember that the maneuver is slightly wider than it is tall.

Make your second circle the same size as the first one, and as you pass over the top a second time, ease the kite into a vertical dive. Start to move forward now to keep things slow.

Stop moving as you approach the ground, and tension your lines for the final turn. Pull-right. Ease the kite onto exactly the same line that you were flying in the first part of this bottom pass. Now fly straight and parallel out to the left and call “OUT” right below where you started.

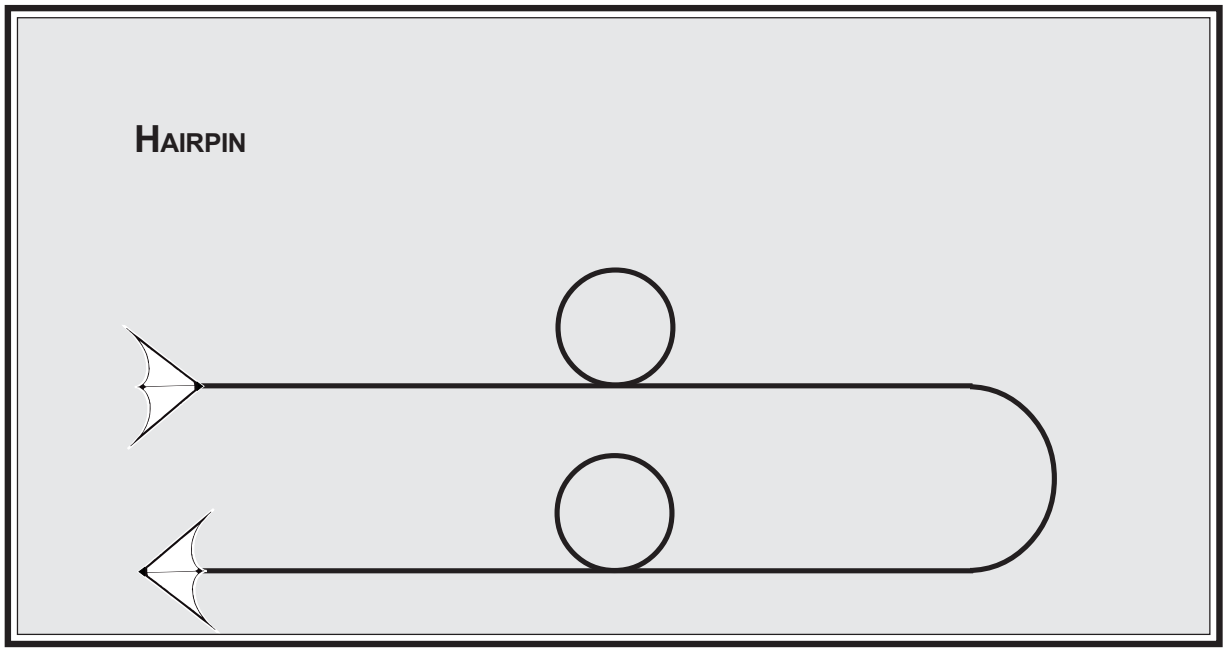
16. THE T-BONE



Competition Spacing: *All parallel lines are twenty percent apart. Circles are similarly twenty percent in diameter.*

The figure begins and ends forty percent left of center. The entrance line is at an altitude of thirty percent, and the exit line is at ten percent. The lower circle extends forty-five percent to the right.

Vertical lines are balanced about the center of the window and the upper circle peaks at an altitude of eighty-five percent.



Hairpin: The two spins in this figure start right on the centerline of the wind. In fact, the middle of the first spin is dead center in the window. Identify that point before you begin and resolve to put the spins exactly where they belong.

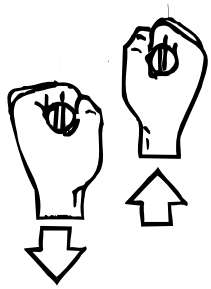
Position yourself deep in the field. You will need to be moving back constantly to maintain power and speed in both the long passes and quick turns near the edge.

Start with a long ground pass from the right. This is exactly the same line you will fly to exit later, so using it as an approach gives you a good final chance to test both horizontal flying and the reverse turn. At the left edge of the window, pull-right to curve up and over. Bring your left hand even to straighten out with your kite just below the center of the window. As you level off, call “IN”.

Your objective is to maintain smooth, straight flight, parallel to the ground, even though you are going to interrupt it at the middle of the window with a spin. Check your speed, and anticipate the turn as you come to the center line.

At exactly the center of the window, turn your kite into the spin. Pull back with your left, and if you need to make the circle smaller, push with your right at the same time.

Be careful not to make the circles too small. Consider the size of the maneuver carefully, and compare the size of your kite to the proportions of the spin. They should fill nearly a quarter of the height of the window.



USE A COMBINATION PUSH-PULL FOR TIGHTER LOOPS

Unless the window is quite compressed, the kite will not be turning inside its own wingtip.

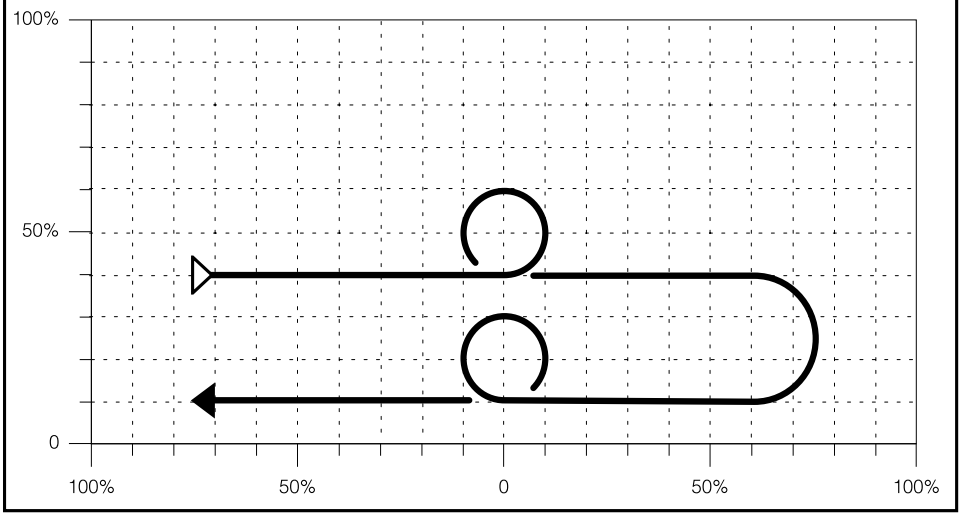
Now continue your horizontal pass to the right. As you approach the edge, pull-pull to turn under and reverse direction. Use the same kind of turn you practiced to enter the maneuver. Power in, and power out. Your objective is to be flying back to the left in a straight line just above the ground.

As always, you need to be careful in low passes to avoid any ground touches. The winds are lighter here so you will need to keep moving back to increase speed and power.

As you return to the center of the window, time your second spin so it is directly below the first one in the center of the wind. Pull-right this time. Make both circles exactly the same size. The temptation will be to spin the kite fast so the wind roars off the sail. Don't do it! Timing your exit is crucial, and slower movements allow more precise calculations.

As you finish the second circle, all you need to do is continue the bottom horizontal to the right edge of the window and call "OUT".

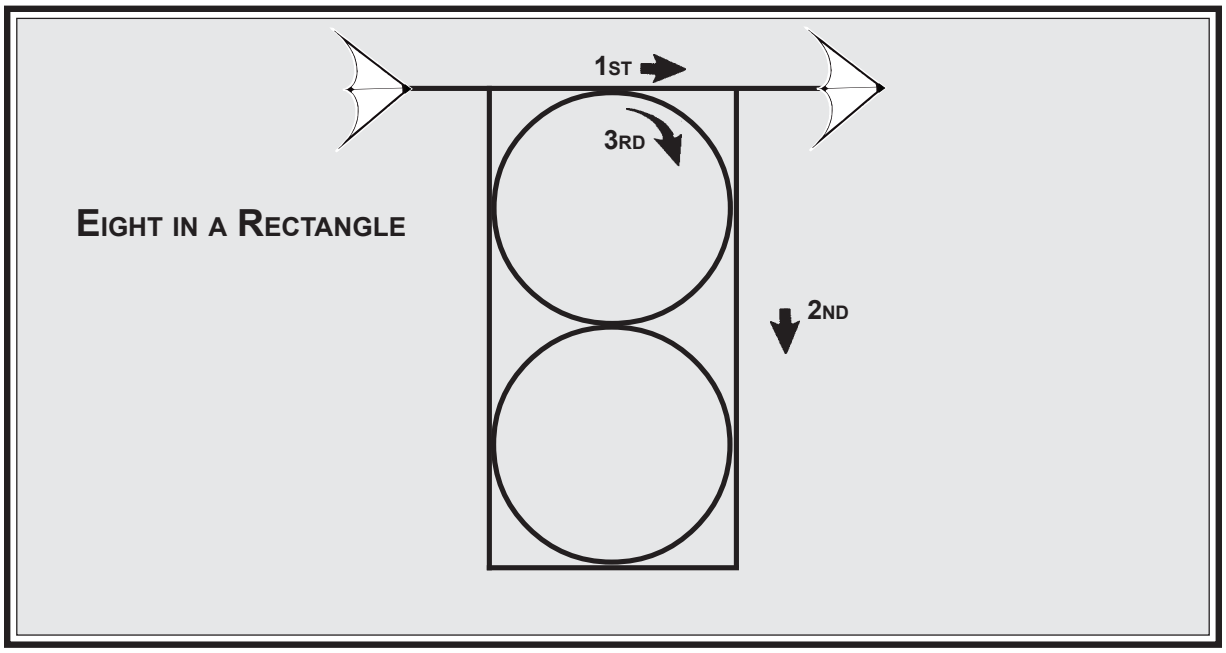
17. HAIRPIN



Competition Spacing: *IN and OUT are thirty percent in from the left edge. The first pass is at forty percent altitude with the first circle flown at the center of the window. Circles are twenty percent tall.*

The reverse turn is ten percent wide and thirty percent tall.

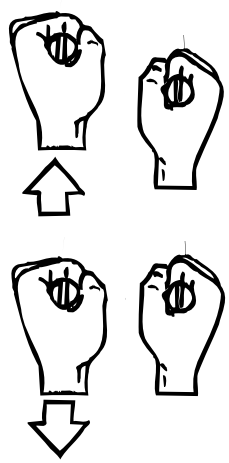
The bottom horizontal is at ten percent altitude with the second or lower circle placed in the middle of the window.



Eight in a Rectangle: The rectangle is flown first, then the circles. Let's be clear about that right off the top. Also notice that this is a "true" figure eight made of connected circles, rather than the teardrop-shaped transitions that you have seen before. In order to fit two perfect circles neatly inside, the rectangle must be exactly twice as tall as it is wide. Got it? Good, now let's fly it.

Start with a high horizontal pass toward the left. Turn up and over to get higher in the window, straighten your flight, and call "IN" about half way back to the center.

Fly straight across the top of the window. About a quarter of the way past center, push-left to turn down.



90 DEGREE TURNS
SHOULD BE EASY NOW

Angular push-turns should be coming easily now. Use them to fly all of the rectangle and concentrate on proportions. Remember, you want it half as wide as it is tall. Move forward during the dive, move back during the climb. Keep your pace smooth and even.

As you finish the fourth turn, get ready to fly the circles. The first curve will come quickly.

Pull-right to curve down. The hard part will be to space the first circle so the outside edge passes exactly over the border of the rectangle. Continue to pull-right as you turn under. Then begin your transition to the second circle in the exact midpoint of the window. Pull-left to begin to curve back.

Any spacing errors will be easy to see at the base of the maneuver. Make sure the bottom of the circle, and the bottom of the rectangle are the same height above the ground. Then continue to curve around so that you switch back to the top circle at the center of the window again.

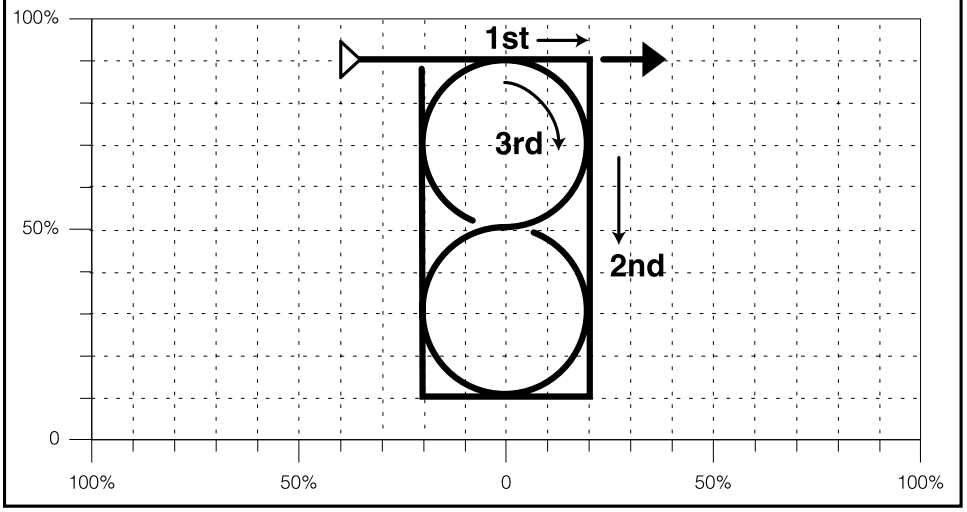
Anticipate the turn so you can hit it right on the center point.

Concentrate on staying inside the lines of the rectangle. As you reach the top of the circle, straighten out your flight so you are simply continuing the line you created when you started the maneuver. Fly across the top of the window and call “OUT” when you are about halfway to the right edge.

With all of these dives, climbs, curves and turns, maintaining an even pace may be a problem. Practice moving forward and back as you fly each part. Spacing and proportion are the most important things to worry about.

Try flying the maneuver as slowly as possible. You’ll be surprised how much difference a few extra seconds makes.

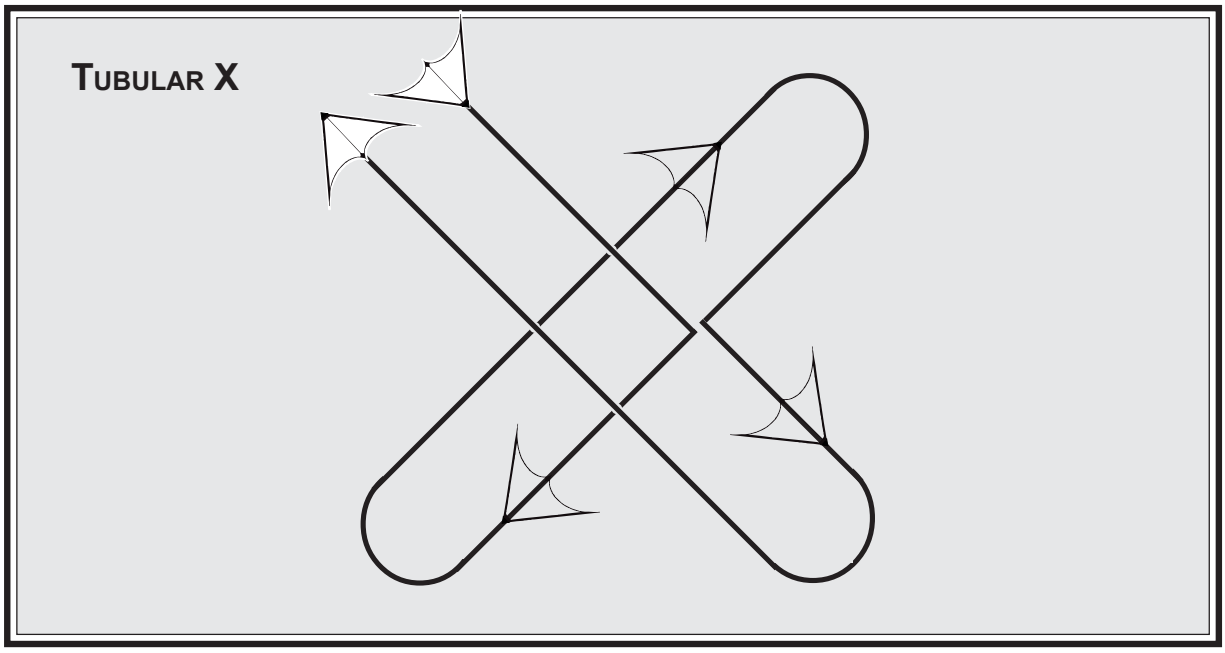
18. EIGHT IN A RECTANGLE



Competition Spacing: *IN is called on a straight line forty percent left of center at an altitude of ninety percent. The rectangle is forty percent wide and eighty percent tall. This leaves the bottom of the maneuver ten percent off the ground.*

The figure eight is comprised of two equal circles, each forty percent in diameter. The circles fit completely inside the rectangle.

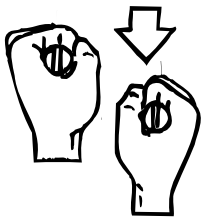
OUT is called forty percent right of center.



Tubular X: Here is another busy maneuver. To do it right, you will need to concentrate, keep all your lines parallel, and fly your lower turns equal distance off the ground. Let's give it a try.

Position yourself well forward in the field so you have lots of room. To power your turns, and to maintain a constant speed, you will need to move back through most of the maneuver. Start in a horizontal pass from the top left. Fly across the top of the window until you are about a quarter of the way out from center. Then turn down at a forty-five degree angle and call "IN".

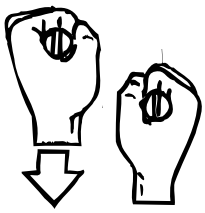
Your target on this first diagonal is just right of center. Concentrate on flying straight and staying on a forty-five degree diagonal. Then, when you have descended half way down the window, push a sharp right turn that angles you back to the left on another forty-five degree dive. Make a mental note of the point in the sky where you made this turn. You're going to do another one here later.



PULL-RIGHT TO POWER INTO THE TURN

As you approach the ground, get ready for another right turn. Pull-pull to turn up, over, and reverse direction. Pull-right to power in, and pull-left to power out. Your objective is to be flying back to the right in a forty-five degree climb, parallel to the dive you just finished.

Don't make this turn too close to the ground. When you complete a "mirror" of it on the opposite side of the window, you will be turning under and will need all the room you can get to avoid hitting bottom.



PULL-LEFT TO POWER OUT AND STRAIGHTEN

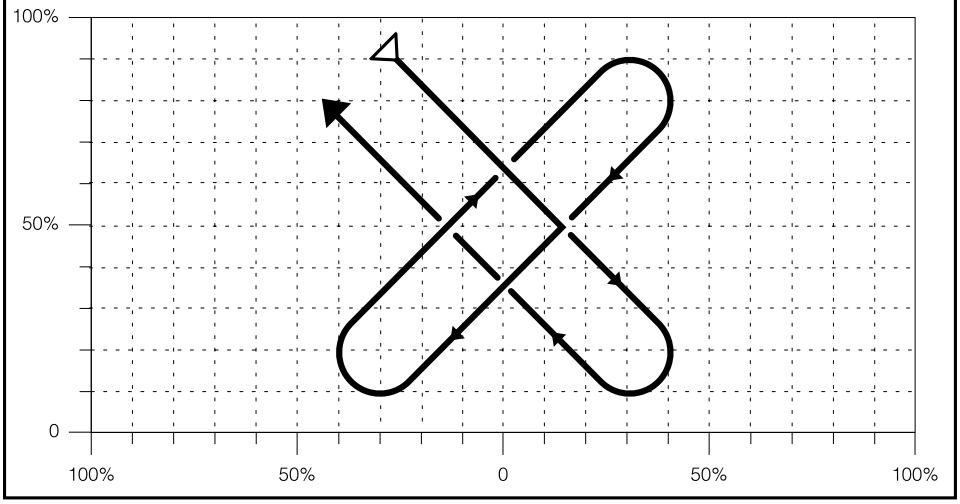
Continue your straight diagonal climb all the way to the top of the window. Make your turn there the same size and shape as the one you performed near the ground. This should swing you around on another parallel line. If you took it all the way to the ground, it would exactly overlap the second line of the maneuver. But you're not going to do that. Instead, you're going to do another sharp corner, precisely where you flew the first one a few moments ago.

This is the only left turn in the figure. Push hard to make another clean corner that extends the first line of the maneuver. As you approach the ground, prepare another pull-turn that loops you under and back up to the left on a final forty-five degree climb. Now all you need to do is fly straight and parallel to your first line until you approach the top of the window and call "OUT".

Tubular X is obviously an advanced maneuver with some difficult spacing problems. Remember that all the diagonal lines are flown at a forty-five degree angle, and cross each other at right angles. Dives and climbs are all equal distance apart. To make this work, each of the reverse turns has to be exactly the same size.

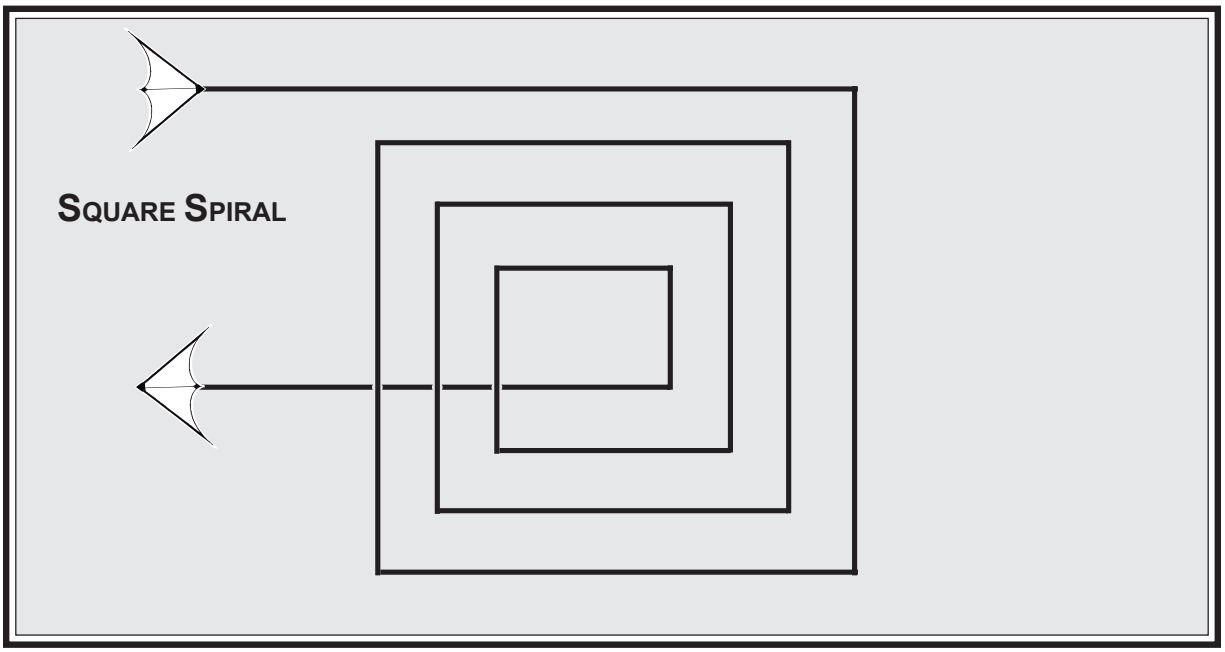
Another thing we tried to point out, is that the two corners in the figure are right on top of each other. Fly them so that your dives would overlap if they were extended in the sky. Now go practice!

19. TUBULAR X



Competition Spacing: *IN is called at the top of a forty-five degree line, twenty-five percent left of center at an altitude of ninety percent. Bottom turns are centered forty percent left and right at an altitude of ten percent.*

All parallel lines are eighteen percent wide. Corner turns are at fifty percent altitude and twelve percent right of center. OUT is called forty percent left of center.



Square Spiral: Let's hope you are in the mood for push-turns. There are fourteen of them in this maneuver, and every single one is flown to the right.

Start in a vertical climb on the left edge of the window. Go all the way to the top and turn in. Stabilize your flight line, and call "IN". Your first job is to fly a long, straight, horizontal line at the top of the window.

As you know, because of the effects of gravity, your kite may have a tendency to drift toward the ground in long horizontals. Maintain a slight "up" pressure by holding your left hand slightly back from the right. Concentrate on flying perfectly parallel to the ground, and set the pace that you intend to hold through the maneuver. You are well outside the power zone, so you may need to step back to maintain your speed.

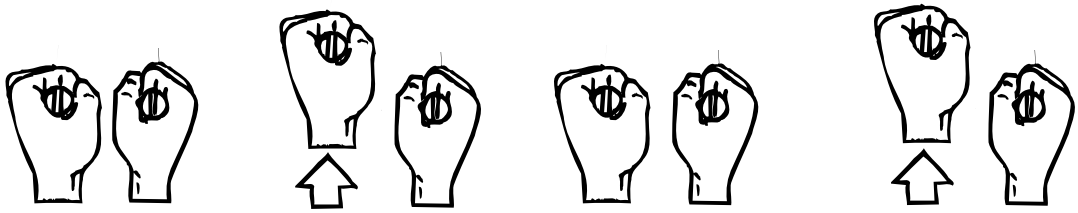
When you are almost half way out to the right, execute a sharp push turn so the kite snaps a ninety-degree angle toward the ground. Now the fun starts.

Move back to slow the kite in this first dive. Make sure your flight path is perfectly straight, and anticipate the next turn. Time it so you make a sharp right angle just one kite width above the ground.

Move back to maintain speed. Then, as you complete the bottom line, almost half way out to the left, push-left to turn right and start to move back to increase power in the climb.

The maneuver should quickly build up a rhythm now. Notice that the outside perimeter of the figure is a square. This means that each low horizontal pass is going to be just as long as the dive that preceded it.

Build a Rhythm



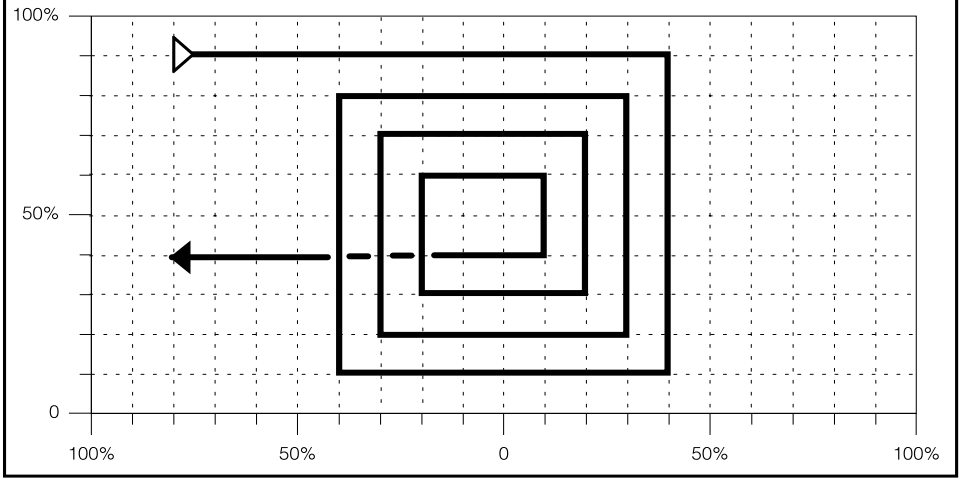
Hold Even to Fly Straight | Push-Left to Turn Right | Hold Even to Fly Straight | Push-Left to Turn Right

Each high horizontal is the same length as the corresponding vertical climb. To properly space the boxes, all you need to do is make each vertical climb slightly shorter than the previous one. Move in when you dive, move back when you climb. Focus not only on your spacing, but also on your speed.

It is easy to get confused as the turns come faster and faster. How many have you done? How many left to go??

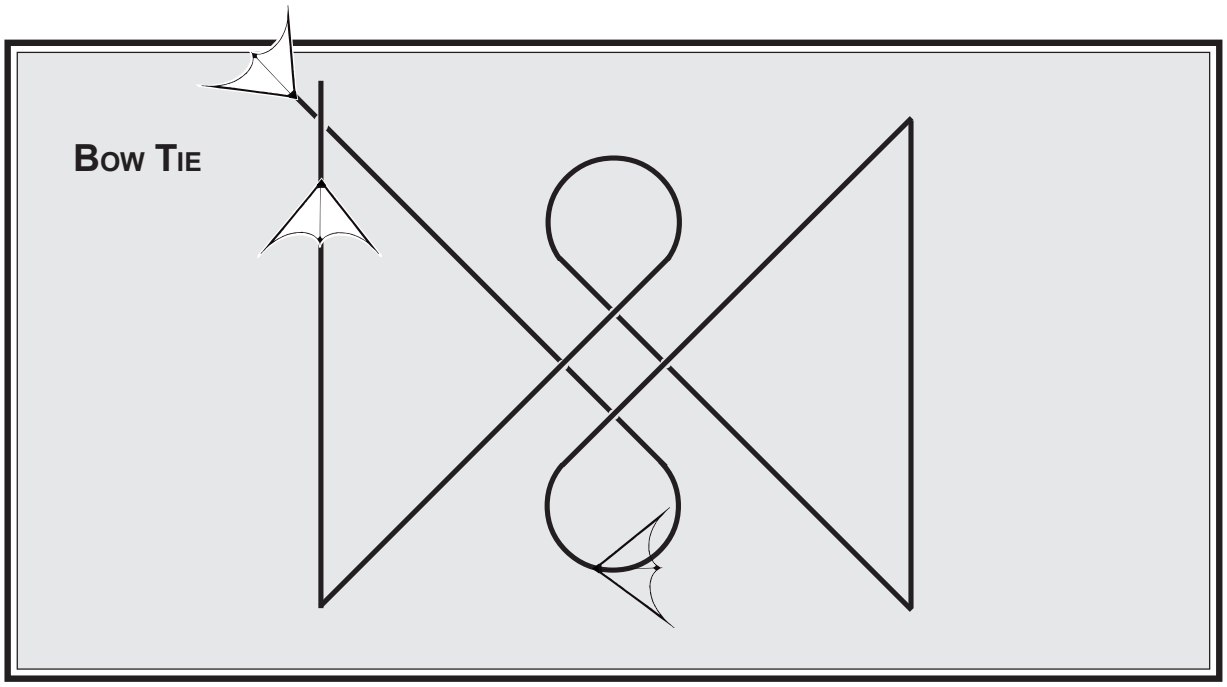
Try counting the dives to yourself as you fly. Forget about counting corners or any other lines. There are four dives. When you finish the fourth one, push-left to turn right one more time, and fly straight out toward the left edge of the window. If your spacing has been even, this last horizontal should be just below the center of the window. When you pull even with the point where you started, call “OUT”. Now go untwist your flying lines.

20. SQUARE SPIRAL



Competition Spacing: *IN is called eighty percent left of center at an altitude of ninety percent. The first turn is forty percent right of center, the second turn is ten percent off the ground.*

Spiraling lines are spaced ten percent apart. Successive vertical dives are at forty, thirty, twenty, and ten percent right of center. Vertical climbs have a length of seventy, fifty, and thirty percent. Each high horizontal is the equal in length to the corresponding vertical climb. Each low horizontal pass is equal in length to the dive that preceded it. The exit horizontal is forty percent above the ground. OUT is called eighty percent left of center.



Bow Tie: This is another figure that is focused around the center of the wind window. Find that spot before you begin and fix it in your mind.

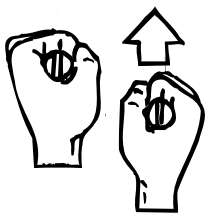
Begin in a high horizontal pass on the left side of the window. Turn up and over so you are flying back toward the center and very high in the window. As you approach the point, half way to the middle, angle down at forty-five degrees and simultaneously, call “IN”. Make this a short push-turn with your left hand. As you recover from the turn, the nose of your kite should be aimed just a hair below the exact center of the window.

Flying into the power zone, you may need to move forward to slow your speed. As you pass center, prepare to fly the first circle.

Obviously this is not a full “circle” at all, but more of a teardrop. We call it a circle to remind you to make it round, not oval. Don’t make the common mistake of flying it too narrow. Also note that the tear is one-third the height of the full figure. Don’t fly it too big or too small.

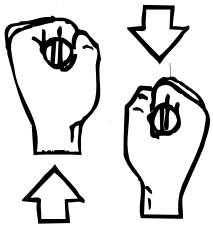
Pull-right to make the curve. Then, as you come around straighten out and aim back toward that spot just below dead center. Remember to anticipate so you don’t oversteer. Start releasing from the turn before the nose of your kite is aiming at your target.

You should now be on another forty-five degree diagonal line back toward the top of the window, half way out to the right. Move back to maintain speed and get ready for some very sharp turns.



Anticipate the Release from Your Pull-Turn. Start a Micro-Second Early.

When you reach the top of the window, you need to snap around toward the ground. This is a full one-hundred-thirty-five degree turn, so a hard push, or maybe even a combination turn is called for. Anticipate the turn and practice so that the nose of your kite pops right around and flies straight toward the ground.



USE A COMBINATION TURN FOR THIS SHARP 135 DEGREE ANGLE

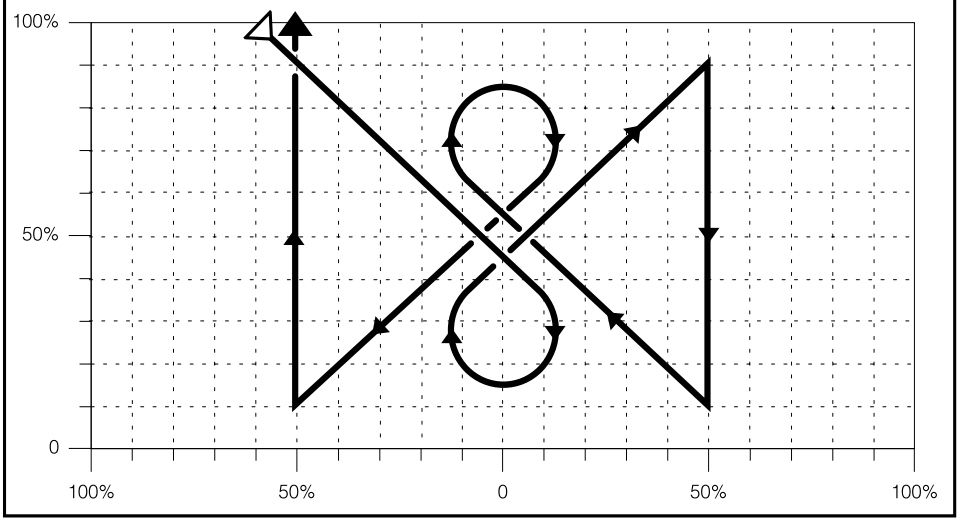
Now perform the turn again at the bottom of the window. Do it carefully, because your wingtip will be very close to the ground. Swing around so you are now heading straight toward dead center again.

The second half of the maneuver is a mirror of the first. Concentrate on slowing your flight to keep the turns manageable. Make the angles sharp, the teardrops smooth and round, the lines straight, and your pace consistent. No problem.

Your final vertical climb will be half way out to the left. Fly straight up to the very top of the window and call “OUT”.

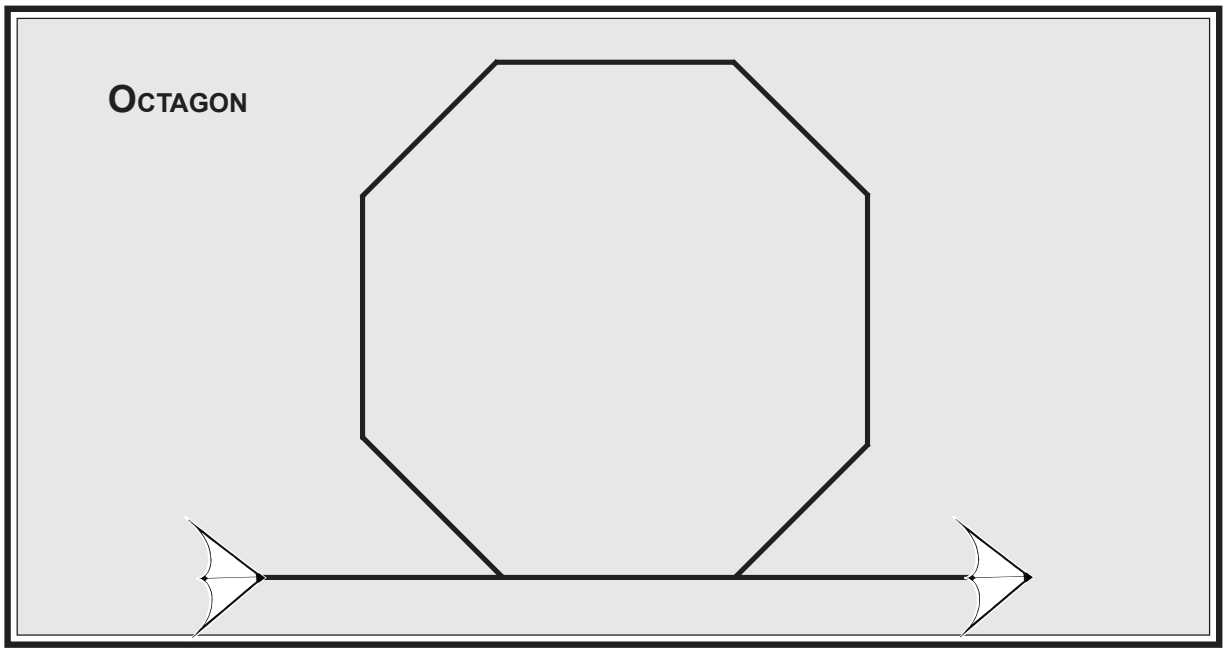
Flying the Bow Tie may begin to feel familiar after a while. Remember the Mount, which we learned earlier? The Bow Tie is basically two Mounts flown back-to-back. Practice it that way, and it may not seem so intimidating.

21. BOW TIE



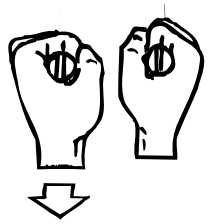
Competition Spacing: *IN is called sixty percent to the left at an altitude of one-hundred percent. Diagonal lines are flown at a forty-five degree angle. Teardrops are twenty-five percent wide and thirty percent tall.*

Both verticals are fifty percent from center. The upper right turn is at ninety percent altitude. Bottom turns are at ten percent. The first and last lines intersect at ninety percent altitude. OUT is called at one-hundred percent.



Octagon: This maneuver is not as easy as it looks. Spacing must be exact and each angle precise, or you will end up far out of position when you finish. Notice that each turn is a forty-five degree angle. Use push-turns to make these angles sharp or your figure will look like a rough circle by the time you finish.

Start in a low ground pass from the left. Like many other maneuvers, this figure requires straight flight, very close to the ground. About a third of the way in from the left edge, call “IN”.



DON'T LET THE LONG HORIZONTAL DRIFT. PULL BACK SLIGHTLY ON THE LEFT.

Both your starting and ending horizontals are fairly long. As we’ve mentioned before, your kite may have a tendency to drift toward the ground in long horizontals. Maintain a slight “up” pressure by holding your left hand slightly back from the right.

Concentrate on flying perfectly parallel to the ground, and set the pace that you intend to hold through the maneuver. You are well outside the power zone, so you may need to step back to maintain your speed.

Fly about a fifth of the way past center, and then turn up. Make this forty-five degree angle distinct. Punch your right hand forward so the kite pops. It’s better to make the angle more visible than less. Keep moving back to maintain pace, and get ready for another turn.

Now, if you've studied the drawings for this figure closely, you will have noticed something interesting. Diagonal lines are shorter than the verticals and horizontals. In fact, they are nearly ten percent shorter. Use this knowledge to fly the figure perfectly.

When gearing up for that big event, work out all the details of your routine in advance. Memorize the maneuvers, and plan out the transitions or how you will position yourself to enter each figure.

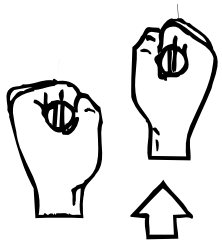
If you're afraid you'll forget the required maneuvers, try drawing them on your arm. It works!

Practice your routine in all wind conditions. Remember, events aren't always held in perfect wind.

The first vertical is not quite half way to the right edge. The next diagonal is almost three-fourths of the way to the top. And the upper horizontal is right at the top of your flying space.

Once you have the rhythm and spacing of the turns figured out, concentrate on flying at a constant speed. Move back in the climbs; move forward in the dives. Both take place well within the power zone. Horizontal lines, on the other hand, are at the very top and bottom of the window, so you will need to move back to maintain speed.

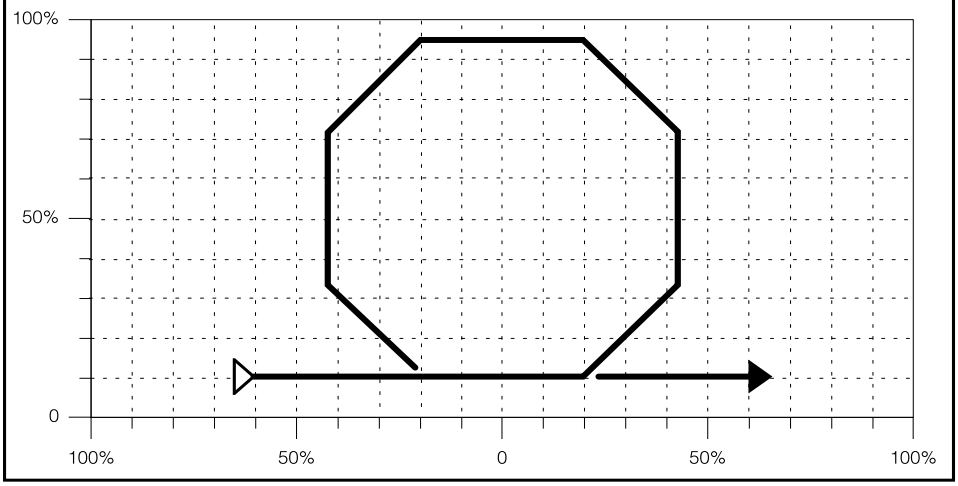
The slower you can fly, the more distinct each angle will appear.



To Keep Each 45 Degree Turn Identical, Push Each One the Same Amount

As you prepare for your final turn, position the kite so the last horizontal line will be exactly on top of the first one you flew when you started the maneuver. Two-thirds of the way out to the right, call "OUT".

22. OCTAGON



Competition Spacing: *IN and OUT are called sixty-five percent from center at an altitude of ten percent. Vertical lines are forty-two percent from center.*

The top horizontal begins and ends twenty percent from center at an altitude of ninety-five percent.