Put the Wind In Your Hands

GETTING STARTED FLYING A TWO LINE STUNT KITE

BY: BILL and KIM TAYLOR

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The authors are not responsible for any accident or injuries that may occur as a result of an individual using any controllable kite or the information in this book.

CONTENTS

SAFETY TIPS

Fly safe, have fun.

When people or animals appear below the kite or between you and the kite, walk the kite away from them, land it off to the side of the wind window, or stay flying high until they are out of range. The lines can cut and the rods within the kite are strong enough to seriously hurt someone.

Avoid power lines, trees, and all other obstacles.

Do not fly when thunder clouds are present or when it is raining. The rods are made of graphite and graphite conducts.

Kites are a wonderfully fun toy, but can cause serious injury. Use common sense and Enjoy.

QUICK START

STEP 1 Begin with 100 foot lines or longer. (35 - 40 normal steps). Shorter than 100 foot lines will feel like a sports car, difficult to control.
For more information see page 11.

STEP 2 Lines must be exactly even. If not, adjust. Also use only the recommended line weight as per the instruction manual provided with your kite.

STEP 3 You must be upwind of the kite. Best fly area is about 30 degrees each way from the center of the wind window.
See page 8.

STEP 4 Bridle must not be tangled or twisted. The factory setting mark must be the same on the right side as on the left side of the bridle.
See page 15.

STEP 5 If flying alone stake handles, set kite on wings tips with nose leaning back away from the wind. (Best to have a partner).
See page 22.

STEP 6 Fly with arms at your sides and hands extended towards the kite. Control the kite by moving your hands in towards your body. Most kites require a movement of less than one foot in order to launch, turn, spin, etc. Do not extend arms up and out.
See page 26.

STEP 7 Start with a slight tug and or step back to launch the kite
See page 25.

STEP 8 Pull right handle into you, kite turns to the right. Continue pulling, kite spins to the right. Pull left handle into you, kite turns to the left. Continue pulling, kite spins to the left.

One Complete circle, or spin, puts one twist in the lines. To untwist make one complete circle, or spin, in the other direction.

To stop a turn, or spin, bring hands to being even with each other. The kite will then fly straight and in the direction that the nose is pointing.
See page's 27 - 32.

STEP 9 When you crash, move kite back to being directly downwind of you. (Makes takeoff much easier). Check for bridle twists and lines twisted around wing tips. If you are using a flying partner to set up the kite for takeoff be sure that he or she backs up after releasing the kite. This puts them out of the kites path, in case of a crash.

STEP 10 Caution, when learning, No people or objects between you and the kite or under the kite. A fast moving kite can hurt someone.
See Safety Tips.

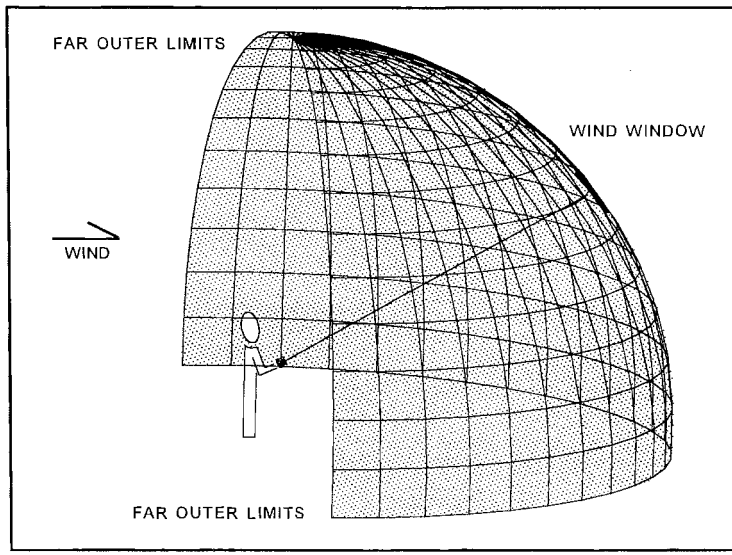
TROUBLE SHOOTING

PROBLEM		SOLUTION
Kite won't fly	1. 2. 3. 4.	Needs more wind. Untangle the bridle. Unwrap fly line from around wing tip. Adjust bridle to bring nose in closer toward you.
Kite falls out of the sky.	1. 2.	Adjust bridle to push the nose out away from you. Shorten and slow down your hand movements.
Kite won't fly straight.		Kite lines must be even.
Kite immediately crashes on takeoff.		Wrong handle in wrong hand.
Kite is sluggish and won't climb. Turns and spins too fast.		Adjust bridle to bring nose in closer to you.
Kite won't turn sharp or spin fast.		Adjust bridle to push nose out away from you.
Kite won't stall or land easily.		Adjust bridle to push nose out away from you.

THE WIND WINDOW

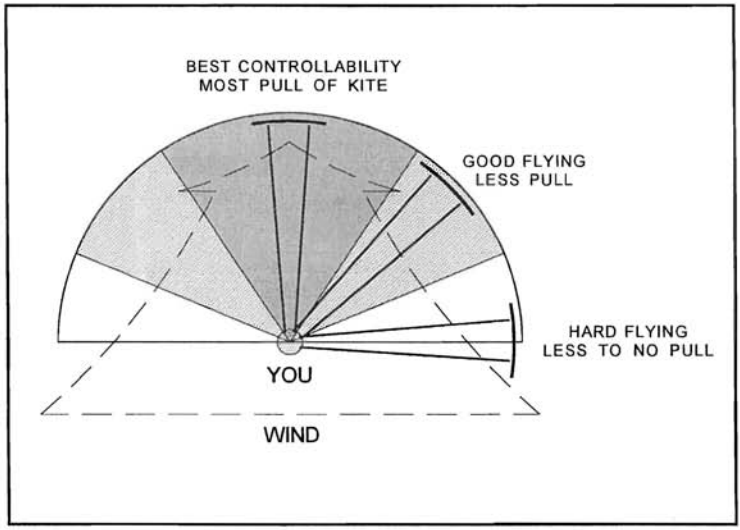
The wind window is the area out in front of you where the wind will make your kite fly.

A clear understanding of the limits of your air space and it's relationship to how a kite flies and where it flies the best will greatly benefit you in your flying ability.



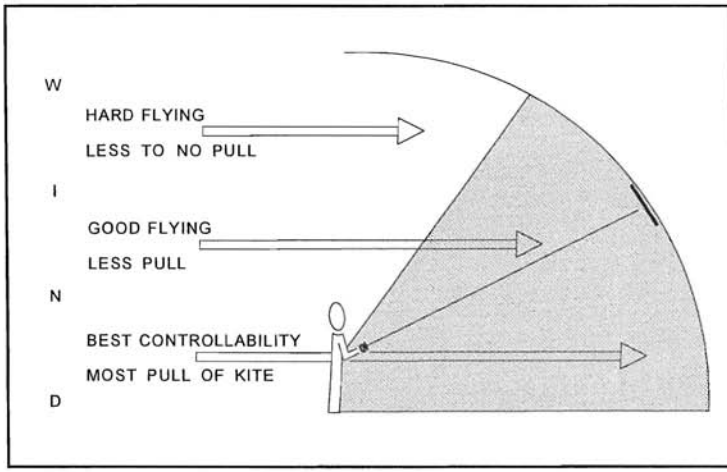
YOUR WIND WINDOW

At the outer edge of the wind window, whether above you or to your right or left, the kite will have less wind pressure and the controllability of the kite will be much harder. In the far outer limits the kite will either hover or fall to the ground due to the lack of wind power. For an experienced flyer this area can provide hours of enjoyment. As a beginner, though, it is best to keep the kite in or near the center of the wind window.



WIND WINDOW

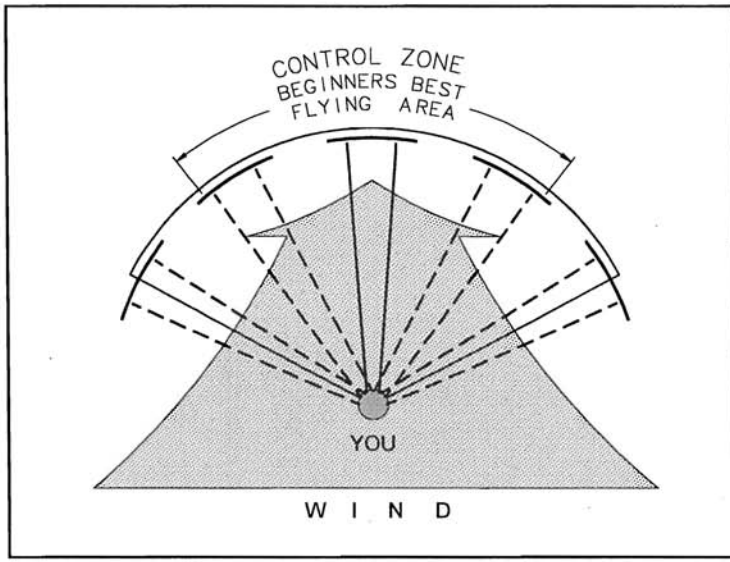
TOP VIEW



WIND WINDOW

SIDE VIEW

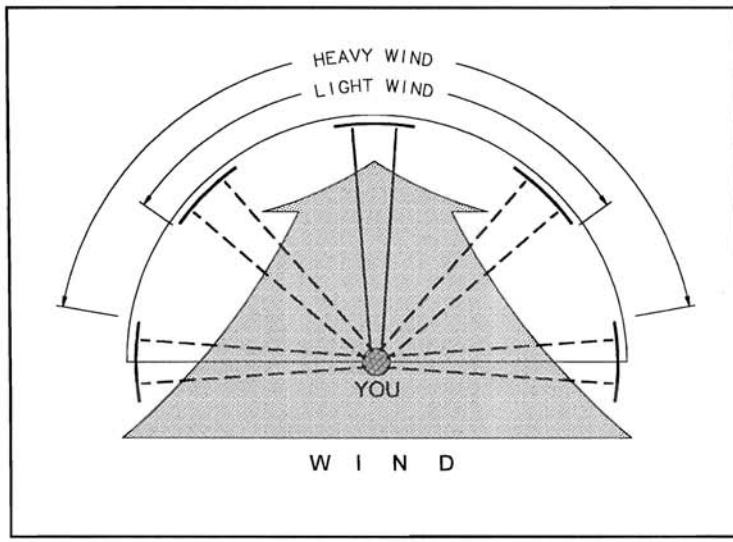
The control zone is the central area of the wind window in which a kite flies the best. This is the small area straight ahead of you where the wind pressure on the kite is the greatest and where the controllability of the kite is at a maximum. This is where you want to stay when beginning.



BEGINNER'S CONTROL ZONE

You also want to begin in a low to moderate wind. This will be the easiest wind to fly in and you won't find yourself being pulled down wind by a kite that has more strength than you do. To assist you in determining the wind speed you can purchase a wind gauge in any number of styles and price ranges, or you can go by your instincts. If you can feel the wind on your face it's a pretty good guess that it is a good wind. If you are flying on the beach and you can see sand moving, it's a good bet that the wind is too strong.

The size of the control zone is determined by the wind speed. A light wind will narrow down your best flying zone, whereas a heavy wind will broaden it.

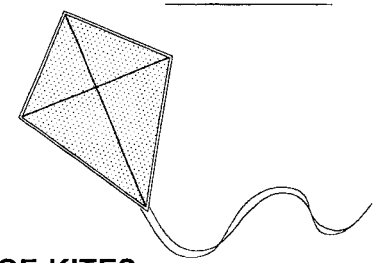


WIND SPEED AFFECTS CONTROL ZONE SIZE

A coastal beach is, of course, the best place to fly a kite. The wind comes right off of the ocean and so has no obstacles. This makes it the purest wind. But this does not mean that you cannot fly a kite anywhere else on earth. If you are an inlander your best bet is to fly in a large grass field away from trees, and buildings. If you cannot avoid having obstacles behind you than try to find a place where the obstacles are as low as possible and as far behind you as possible. This will help to give you a cleaner wind and an easier time flying.

Wherever you decide to fly, use common sense, fly safe, and above all have fun.

BASICS



TYPES OF KITES

The easiest kite to start with is a diamond kite with a long tail attached. These kites are simple to assemble and fun to fly, in fact they nearly fly themselves. Diamonds usually come equipped with lines and handles and are modestly priced.

The next step up is a delta kite. Delta's are much more precise, fly faster, and allow for a variety of tricks. The larger deltas are accurate and forgiving. The smaller delta's are not as precise and will generally need more wind than the larger ones. There are a number of different types of delta's, all of which fall into one of three basic categories. Light wind delta's, called ultra lights, are designed for light wind, as the name implies. Regular delta's, which can withstand heavier winds, are the kites to start with. And radical delta's, which will do odd and unusual moves like stalling out or moving in different ways off to the side of the wind window, are for the experienced flyer. These kites will do just about anything that you want them to do.

If you are not sure what you want and from which category, ask your local kite shop or request a catalog. Most catalogs will picture each kite in full color and will also give you the statistics on each. Kite shop owners are

your best source of information. They are experts in the field of flying kites and are knowledgeable about all of the latest trends in kites and in flying moves. Another good source are your fellow flyers.

TYPES OF LINE

For any type of kite your lines should be at least 100 feet long, or (35 - 40 normal steps). As a beginner, this recommended length gives you the necessary recovery time. Of course once you become an experienced flyer you can shorten the lines to lengths that allow you to be creative with your kite.

It is best to have line that is strong, slippery, does not stretch, and is as fine as a spider's web. The slipperiness allows for more twists with control, and the different weights allow for different wind speeds. For light wind you will need a very fine light weight line, 80 pound or less. For heavier winds you will need a thicker and stronger line, 150 pound or more, is usually recommended. Remember that the thicker the line the more drag you will have and the more wind you will need.

The best, (most expensive line) is Spectra. It covers all of the above aspects and has a very high UV rating. Meaning that it can withstand direct sun for very long periods without deteriorating. It does however have a low melting point. This means that, while flying, if the line comes into contact with any other type of line the other line will cut the Spectra in two.

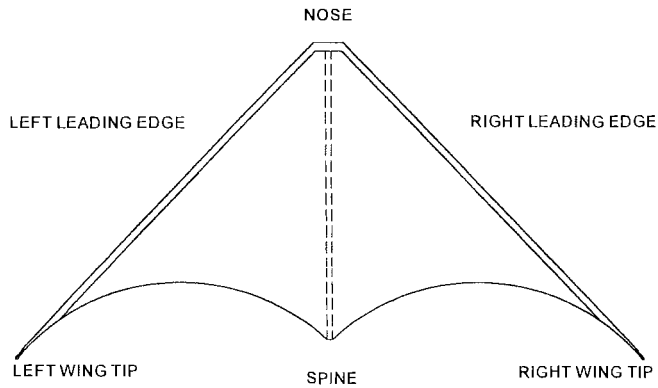
Kevlar is also a good line. It is very tough but can be damaged by the sun and it will cut any other type of line. It is also not quite as slippery and so limits the number of twists. Too many twists and the lines will

tighten up on you and inhibit your controllability.

Dacron, the least expensive, has reasonably good slip, but is also thicker so will take more wind. Dacron stretches more than the others and is not available in ultra light weights. The dacron and dacron blend lines usually do not need sleeving.

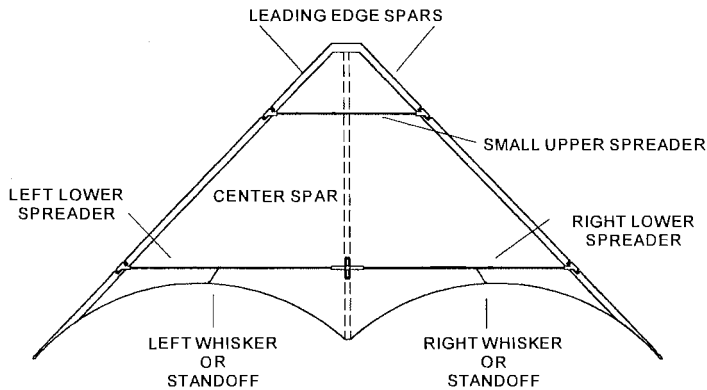
There are also some lines that are braided using a combination of the three above mentioned types of line.

We have found that for us, spectra works the best, although it does cost more.

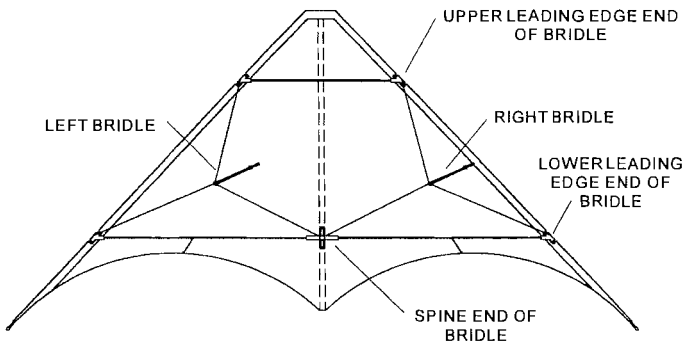


KITE ASSEMBLY

Once you have purchased a kite open it up and look at all of the pieces. Read the manufacturers instructions carefully. Though most kites are basically the same they do have differences and these will be pointed out in the instructions. It is easier to set up your kite, for the first time, indoors and out of the wind. This will allow you to easily understand how it assembles and to be sure that you have all of the pieces.



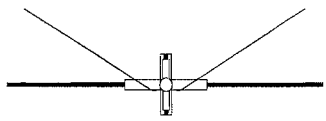
Follow the instructions for assembling the kite and pay close attention to specifics in the instructions. For instance, the upper spreader is shorter than the two lower spreaders and your center and leading edge spars are placed within the kite and generally do not need to be removed. The whiskers, or standoffs are used to shape the kites sail.



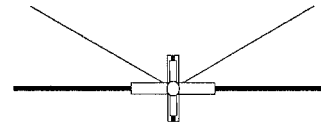
THE BRIDLE

The bridle is an important detail of any kite. Everything else can be perfect but if the bridle is not the kite will not fly properly. For instance the spine end of the bridle, may come out under or over the spreader.

It is important to get this right as it will put the bridle in the correct position for optimum flying. Your kite's instructions will clearly illustrate the correct position.

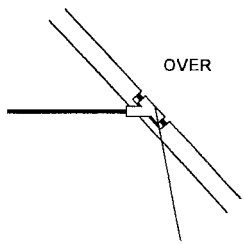


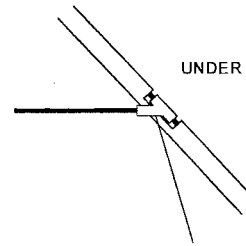
BRIDLE OVER SPREADER



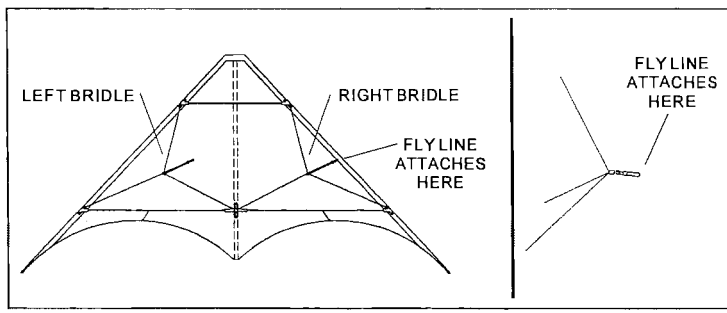
BRIDLE UNDER SPREADER

The leading edge ends of the bridle are also critical areas. The bridle here may come out over or under the spreader's.





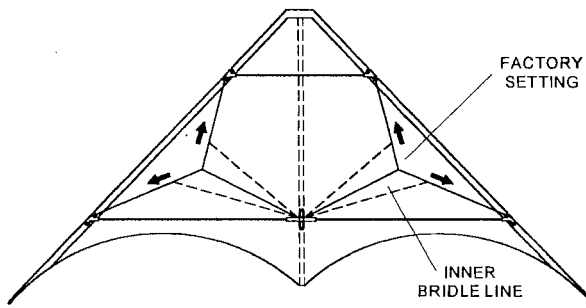
After checking these areas with the instructions, make sure that each bridle is not twisted. Do this by pulling the left and right bridles out, at the point where the fly lines attach, to see that they are not twisted.



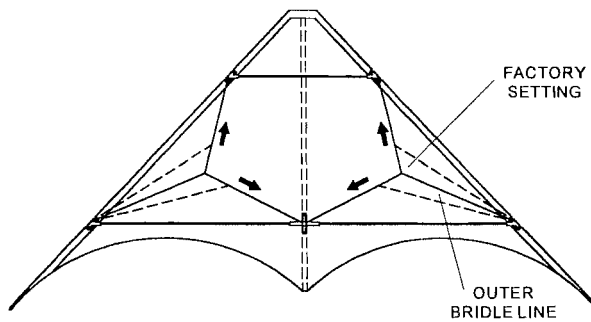
Before you take your kite out to fly it, take a few minutes to measure the bridle. Measure from where it attaches to the frame out to the knot and again from the knot out to where the fly line attaches. These measurements should be exactly the same on both sides of the bridle.

ADJUSTING THE BRIDLE

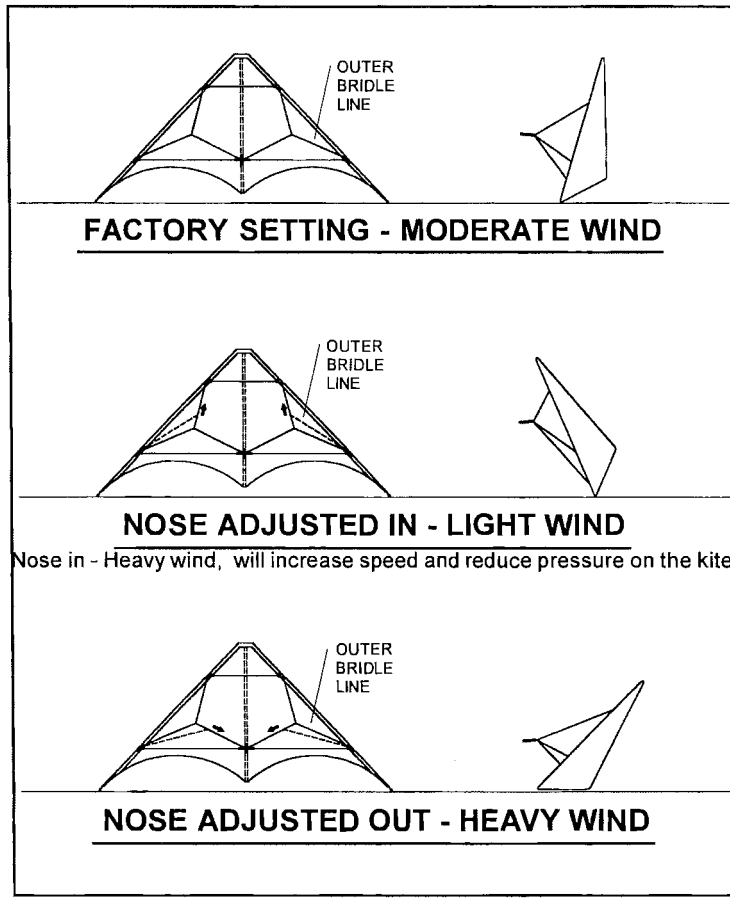
Illustrated below are the two types of bridles and where they adjust for high and low winds.



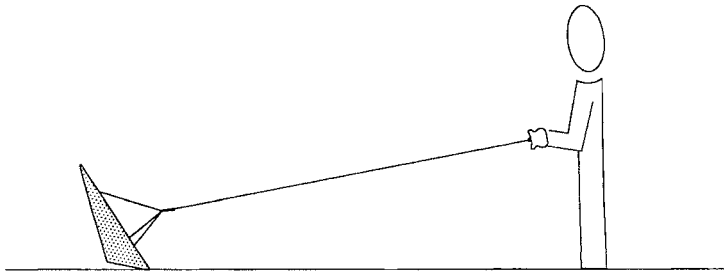
This example shows the inner bridle line as being the one that will adjust up or down the outer bridle line. Adjusting up, pulls the nose in for light wind conditions. Adjusting down, pushes the nose out for heavy wind conditions.



This example shows the outer bridle line as being the one that will adjust up or down the inner bridle line.

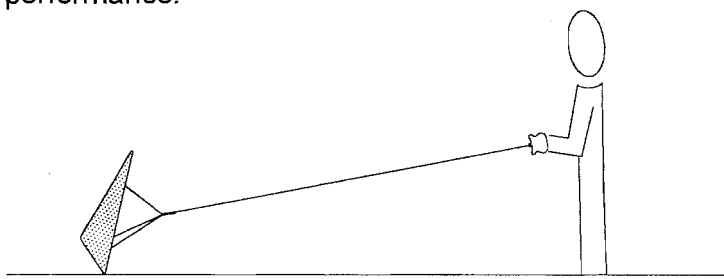


To further illustrate this, moving the outer bridle line up along the inner bridle line you pull the nose of the kite in. This gives the kite more lift which is necessary in light wind. By moving the outer bridle line down along the inner line you push the nose of the kite out. This gives the kite less lift which is necessary in heavy wind. The same applies whether your kite's bridle adjusts on the outer line or on the inner line. (As with all of our illustrations, the adjustments are shown greatly exaggerated from what they actually are).



MANUFACTURER'S ADJUSTMENT

The factory setting on your kite is where the manufacturer feels the kite flies the best, overall, within the wind range recommended for that kite. If this point is not marked, mark it. Due to differences in wind speed and your personal flying preference, you will need to adjust the bridle up or down from this point for better performance.

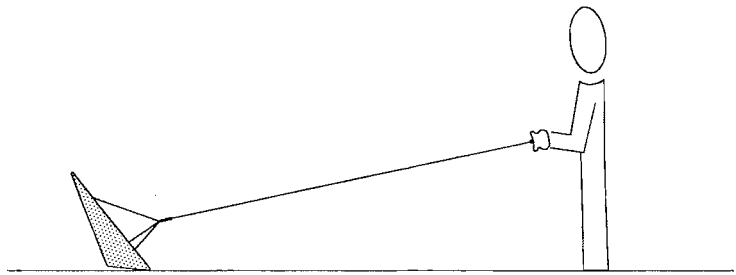


NOSE ADJUSTED IN - LIGHT WIND

To determine the best position for light wind flying remember that the closer the nose is to you the more the kite will fly. Try adjusting in small, maybe 1/8 inch increments until the kite will take off. Increments too large, even 1 inch, can over adjust and you'll defeat your purpose. If you want to spend the time, continue to make these small adjustments. Adjust - fly, Adjust - fly, until you have the kite flying erratically. You'll know that, when the kite starts turning sloppy, slides around and falls out

of the sky. You may even want to make a mark at this point. This way you'll know where too far is, every time you fly.

There are times when no matter how you adjust your kite, the wind is just too light. This is where the super ultra light kites come in. There are also times when the wind is too heavy, this is when the kite pulled buggies come out.



NOSE ADJUSTED OUT - HEAVY WIND

In a heavy wind you want to adjust the bridle down to push the nose out away from you. The kite does not need as much help in the lift department because the wind is heavy enough to do all of the work. With the nose pushed out the kite will turn faster and pull harder. It will also move slower in forward flight. Apply the adjust-fly, adjust-fly technique here again until you get the kite to a point where it will not come off of the ground. Make a too far mark here also.

Sometimes, when the wind is the heaviest, the kite will pull too hard for comfort. This can be detrimental to you and to the kite. To lessen this pull, adjust the nose to the light wind setting. The kite will then fly faster but the pressure on you and the kite will be greatly reduced.

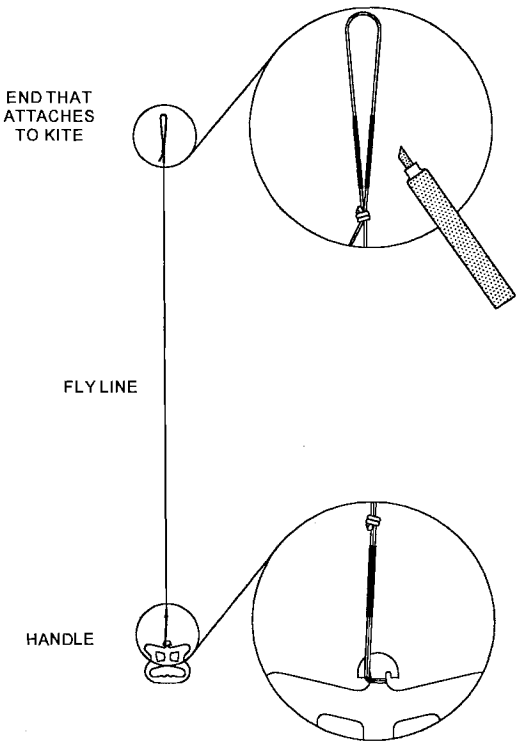
We back our kites off to where they will barely take off. We like the stalling ability that this gives the kites. Flying forward can get boring after a while and in order to do the odd and unusual moves these bridle adjustments are a necessity.

These adjustments can drastically change how your kite fly's. You will find that certain adjustments work better for you in certain wind conditions, and that wind speeds will cause these adjustments to vary.

The larger, more expensive, kites are going to fly better at the factory setting and will require less adjusting. The smaller kites will be much more exacting, than the larger ones, and you may need to adjust them more because they have less surface and so need the optimum flying angle in order to perform at their fullest.

MARKING THE LINES

To make life easier and to keep from confusing right and left, mark one side, say the right, of the kites bridle with a colored marker. Then mark one fly line at the handle and at the end that attaches to the kite, with the same color. Always attach this handle and line to the corresponding side of the kite. This will insure that when you are ready to start flying you'll know that you have the right handle in your right hand and that it is attached to the right side of the kite.

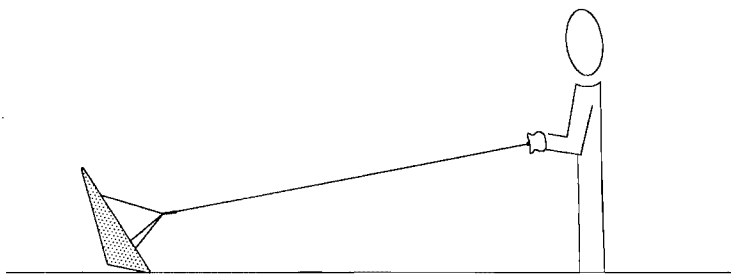


This may sound like common sense but when you are a beginner there are so many other things to think about that it is easy to get the handles backwards. The wrong handle in the wrong hand insures a definite crash before you fly.

You can also stake down your lines at the kite, unwind, and then stake down the handles. Separate the lines as you move back down to the kite. This way you'll know which line is the right and which is the left. Then attach them to the kite accordingly. Regardless of how you prefer to set up your lines for flight always be sure to completely unwind the lines all the way to the handles. If you don't you'll be asking for trouble.

PREFLIGHT

If you are flying on a hard surface, like grass for instance, you will use the previously mentioned technique. Begin by staking down the open looped ends of the lines and unwind up wind. Then stake the handles and return to the looped ends. Attach these ends to the bridle of the kite and set the kite on it's wing tips with the nose leaning back away from the wind.



READY FOR TAKEOFF

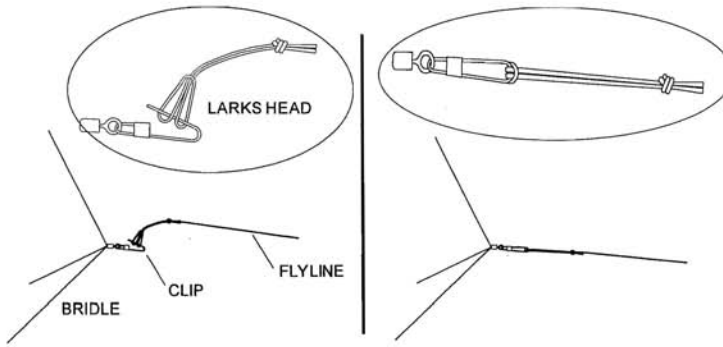
Leaning the kite back will keep it on the ground until you can make it back to the handles. Make sure the kite is directly downwind from you. If the nose of the kite is not tipped back far enough, it will take flight before you are ready. Keep an eye on the kite as you pick up the handles. If the nose of the kite begins to come forward, or the entire kite begins to come off of the ground, you need to push those handles towards the kite in order to keep it on the ground until you have both handles situated in the corresponding hand.

If you are flying on the beach, setting up the kite for flight can be done by laying the kite down on it's back and throwing sand on it at the whiskers. This will add weight so that the kite will not take off before you are ready. You can then hook the fly lines to the kite and unwind upwind

from the kite. When you are ready, with handles in hand, slowly pull the kite to it's upright position, the sand will slide off, and the kite will be ready for takeoff.

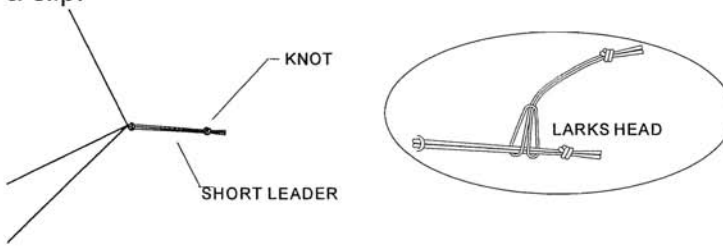
ATTACHING THE FLY LINES

When attaching the fly lines to the kite and, if the kite has clips on the ends of the bridles, make a larks head in the looped sleeve at the end of your fly line and attach to the clip.



If you attach the loop to the clip without a larks head, the fly line will rub on the clip and soon wear out.

If you prefer, you can remove the clips and attach a short leader with a knot at the end. A leader is easier to attach the larks head to and the knot at the end acts as a stop to insure that your larks head does not slide off. Some kites do come equipped with a leader rather than a clip.

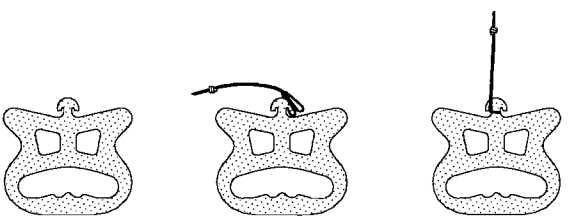


Once you have the handles in your hands, look down the lines to see that they are not twisted. If they are, rotate both handles together, either clockwise or counter clockwise. Rotate until you have the right handle and fly line directly in line with the right side of the kite and likewise for the left.

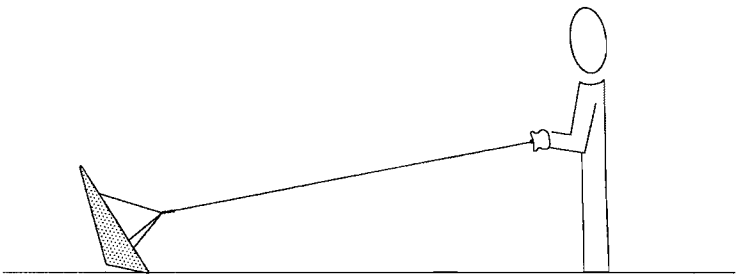
If you have a flying partner, he or she, can physically pick up the kite and twist it in the opposite direction of the twists. Again, once untwisted, make sure that the right handle is in your right hand and the left handle is in your left hand.

HANDLES

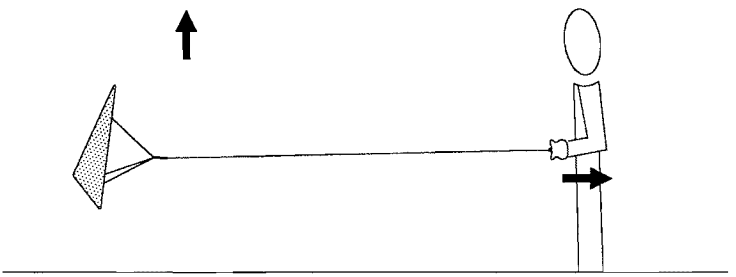
Handles are a personal preference. In lighter winds some people will use the small finger straps, but in heavy winds you want something that you can get a good grip on and that you feel comfortable with. In a heavy wind, with a kite that pulls, you must have control. There are heavy wind straps available, or you can use the type of handles that are illustrated here. We started out flying the quad line Revolutions and these tend to feel more like Rev handle's with some degree of wrist controllability. We have found though that most people prefer the straps.



TAKEOFF

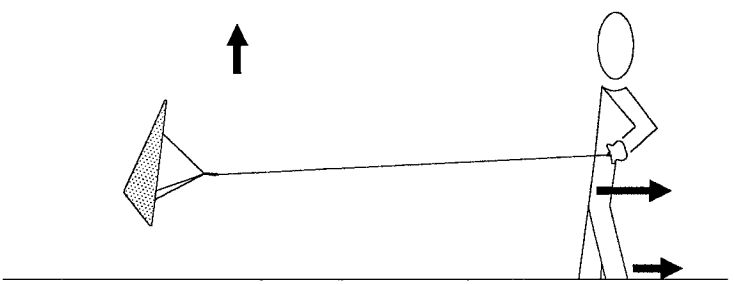


With handles in hand just give a slight pull and you are off and flying.



In a heavy wind this pull will be very slight.

In a light wind you may need to pull farther and possibly even take a step backwards in order to launch the kite.

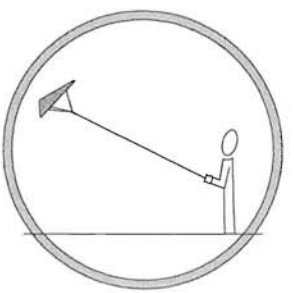


When beginning don't let the light winds frustrate you. As you gain experience in flying and also experience with different wind speeds, you will find yourself able to easily fly in lighter and lighter winds. Remember that some kites are designed for heavy winds and some are designed for light winds. Light wind kites do not do well in a heavy wind, but heavy wind kites can be a lot of fun in a light wind. This does take a great deal of practice and finesse but is well worth the time.

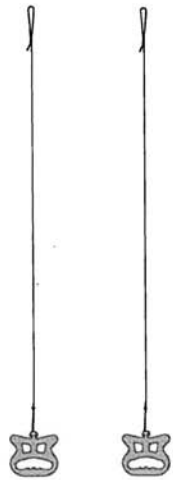
FLYING

The easiest and best way to operate the handles, when flying, is to keep them out in front of you between waist and chest height. It is human nature to want to raise your hands up above you, especially when the kite wants to go down and you want it to go up. This technique will not work.

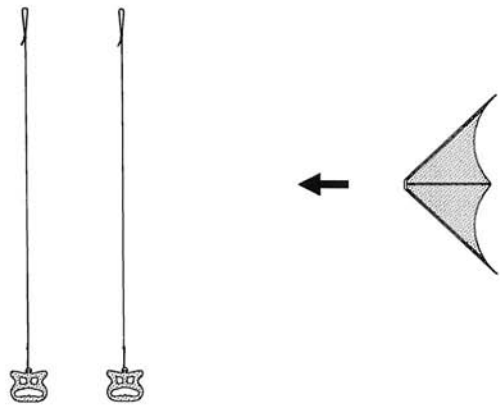
You want to be doing a punching, or pulling, type motion when maneuvering the handles and this is most easily done with your hands out in front of you and with your elbows at your sides. This punching motion is how you will turn, spin and stall the kite. The best area to keep your hands in is somewhere between the distance of having arms completely stretched out in front of you to having your wrists close to you at your sides. Never go up or down, head to knees.



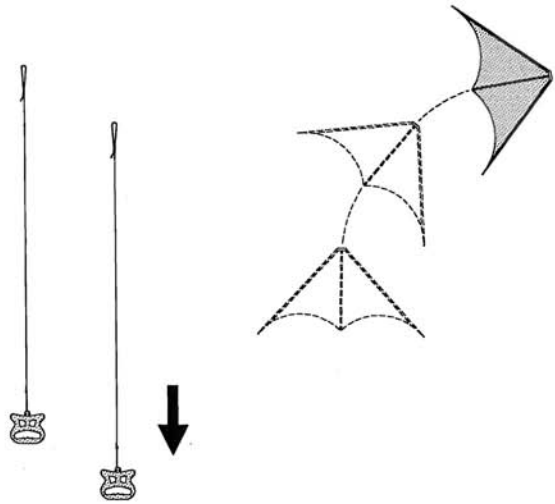
If both fly lines are exactly even lengths and you have your wrists together, your kite will fly straight up. You can go as high as your line length will allow. Refer to the wind window to get an understanding of how the kite will hover at some point directly above you.



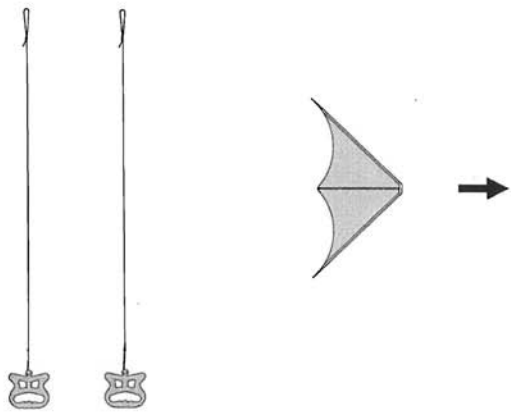
Wrists together, or handles even, the kite will always be flying straight. Whether up, down, to the left, or to the right.



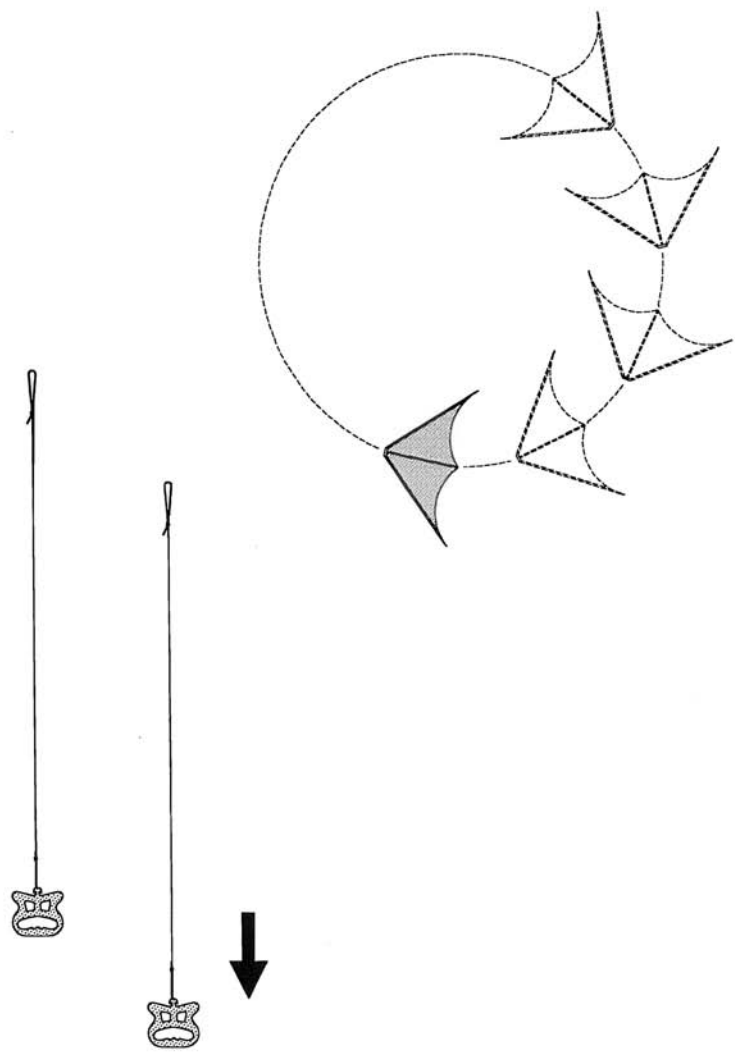
When the kite reaches the height that you want, just pull on say the right handle and the kite will turn to the right.



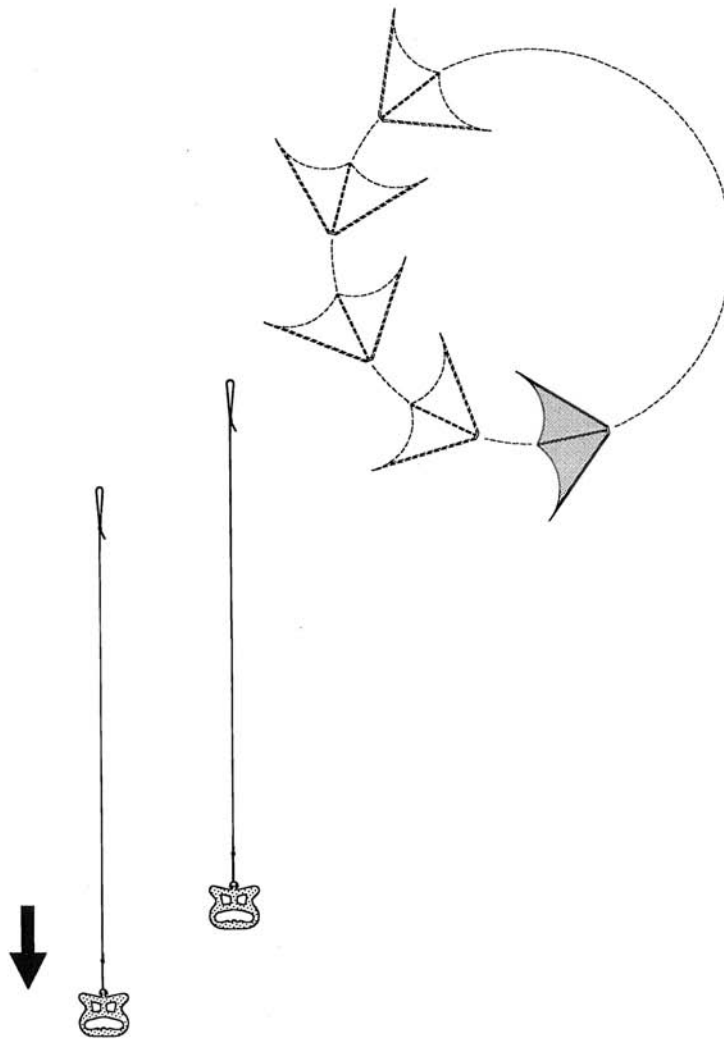
For example to turn 90 degrees to the right, pull on the right handle to turn the kite. Once it has turned 90 degrees, with the nose pointing to the right, bring that handle back to being even with the left handle and the kite will fly straight. Moving across the wind window from left to right.

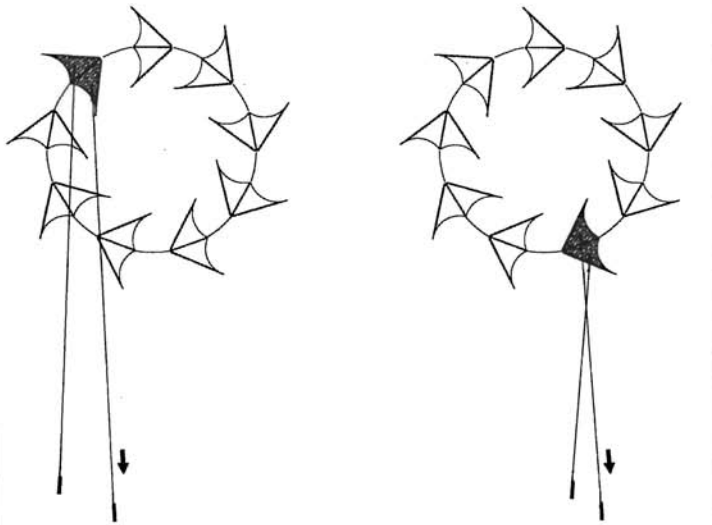


A turn is actually the beginning of a spin. The longer you hold that handle pulled back into you, the more complete spins the kite will make. It will continue to spin until you push that handle back to being even with the other handle, (or until the kite looses altitude and crashes).

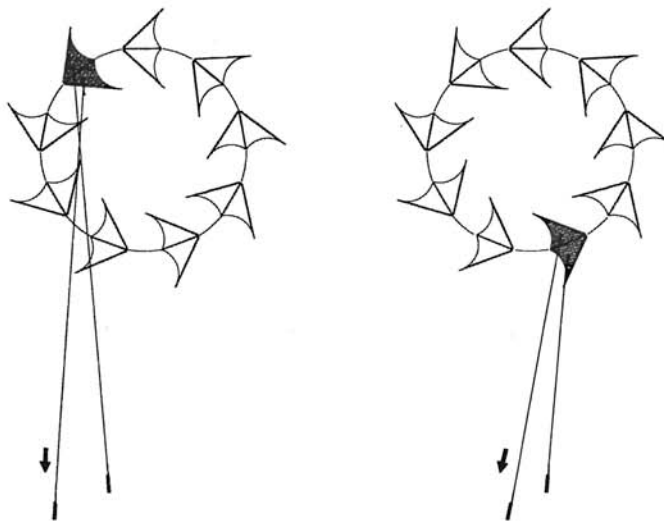


To untwist, or spin the kite in the opposite direction, you pull the other handle into you until the twists are out. It is a good idea to count the spins the first time so that you'll know how many spins will untwist the lines.



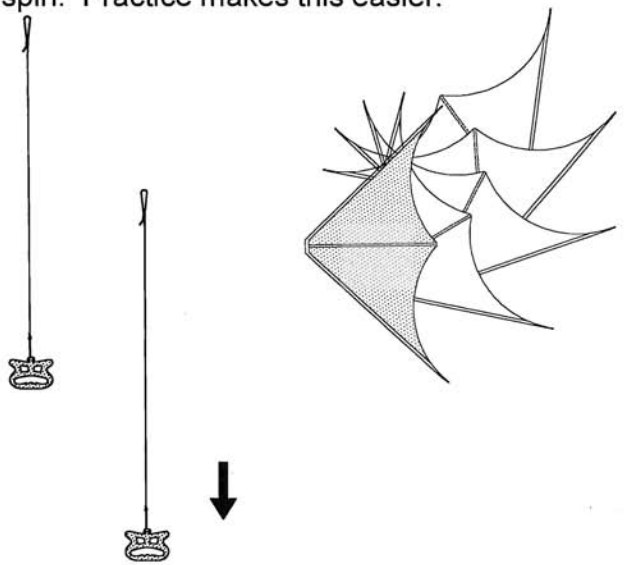


TWIST TO THE RIGHT

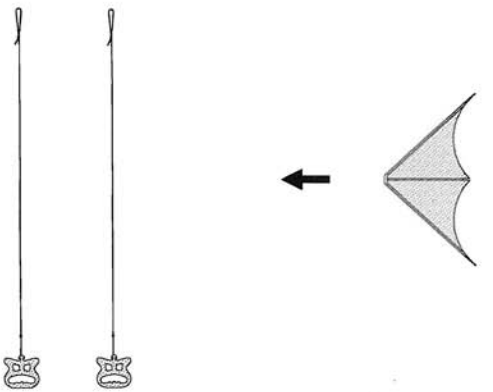


UNTWIST TO THE LEFT

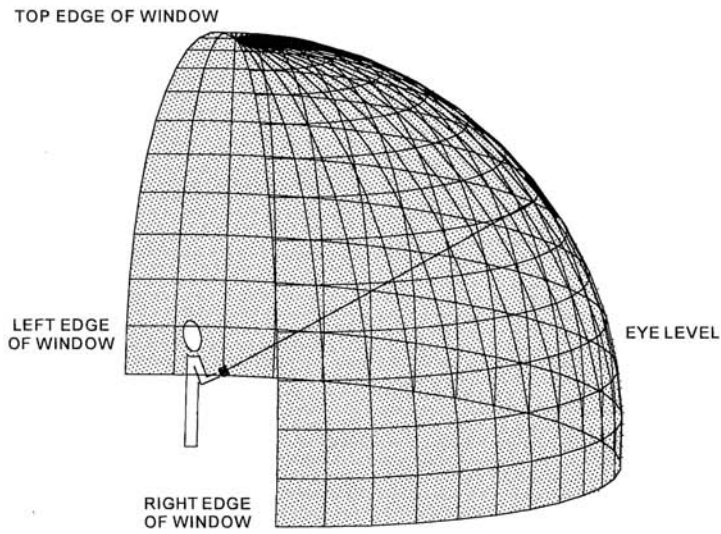
The farther back that you pull the one handle, the tighter the spin. Also the harder it is to keep track of how many complete spins you've made, and the harder it is to know where your nose will be pointing when you stop the spin. Practice makes this easier.

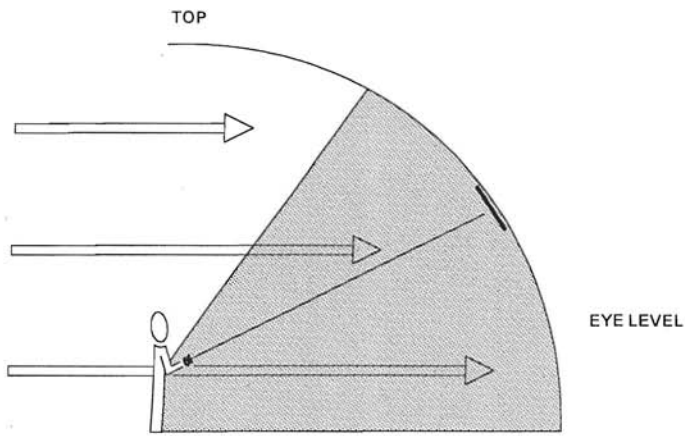


To stop the turn, or spin, just remember to release that pull, bringing both handles back to being even with each other.



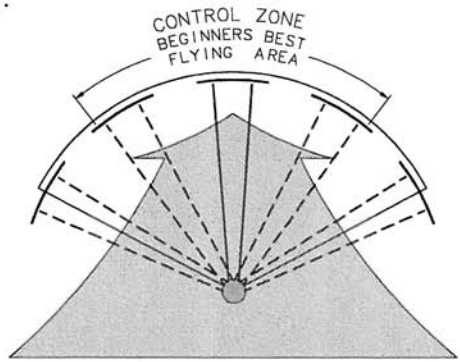
When practicing spins, keep the kite somewhere between eye level and the top edge of the window.





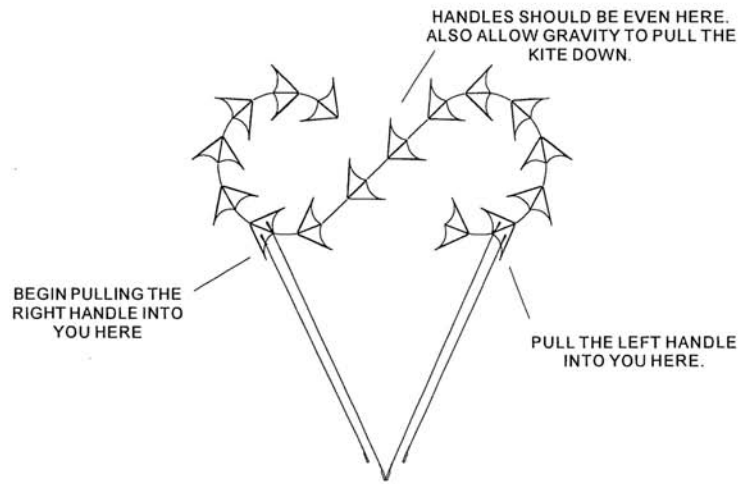
Remember that the more spins you do the more altitude you lose. Starting too low in the window could result in a crash with the ground.

Also stay within the control zone area of the wind window. This will allow enough room for the kite to do several spins and will give it the maximum wind power necessary.



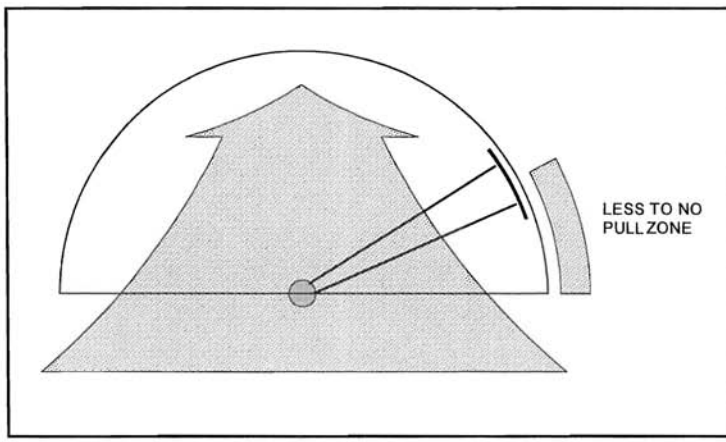
Once you are proficient at flying, and have a good feel for all areas of the window, you can spin very close to the ground or even near the outer edges of the window.

When you find yourself getting bored with spins and turns, try the figure eight. Fly in big slow turns, keeping the kite high in the window.

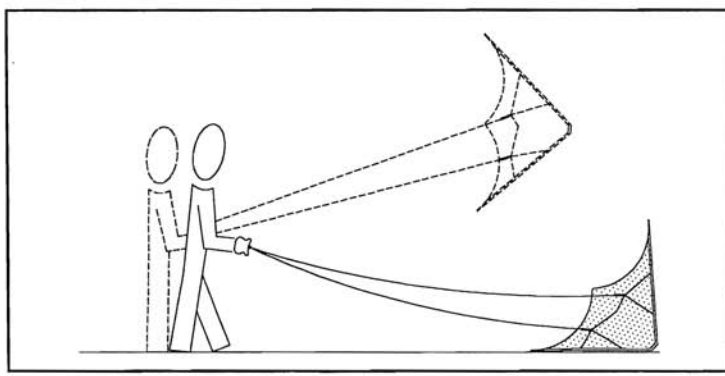


LANDING

Eventually you will get to a point where you need to take a break, the easiest way to land a kite is to fly either to the right edge or to the left edge of the wind window. Here the kite will loose wind pressure and consequently momentum.



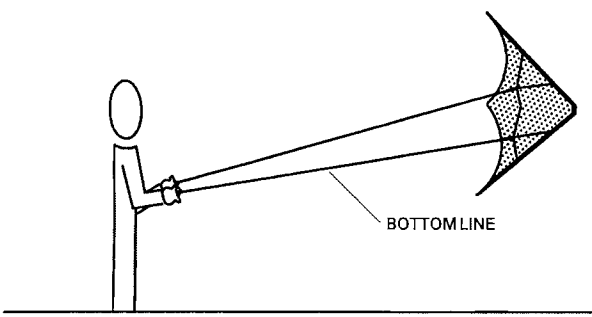
When the kite is close to the ground take a step or two towards the kite and it will land.



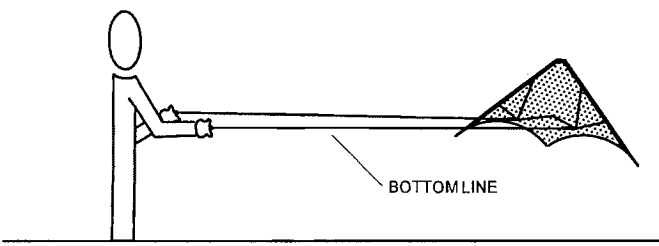
Once you have the kite on the ground you can stake the handles, walk down to the kite, and lay it on the ground. The bridle side should be down and the nose pointing into the wind, and or towards the staked handles. If flying on the beach, pile some sand on top of the kite at the nose. This will keep it on the ground until you are ready to resume flying.

Now you are probably wondering how those flyers are able to land their kites in a smooth, easy, upright manner. The trick is stalling the kite. For practice, a light wind is the best. Fly the kite over to the far right or left edge of the window, keeping it low to the ground. Then push the bottom handle into the kite until the kite is in an upright position, with the nose pointing towards the heavens. At this point push both handles in towards the kite while taking a step or two forward. The kite will stall out and float down to a landing on it's wing tips. Once it is touching the ground, take another step forward in order to lean the nose back away from the wind. In a heavy wind this landing will take more of an aggressive snap type motion in order to stall it and thus land it. Sounds easy, doesn't it? Think again. Be assured that it does not take long to master a stall. Then it will be as easy as it sounds.

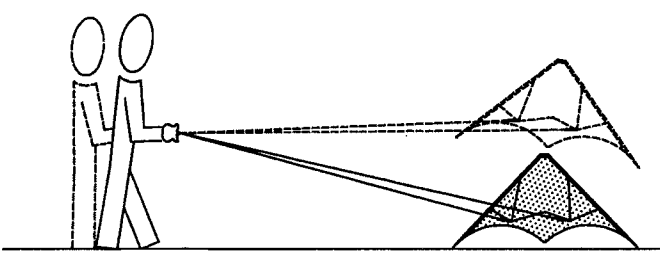
You can also practice stalling up higher in the window and not worry about trying to land it. The practice will give you a feel for how the kite behaves in a stall and exactly what will effect the kite, and how, as it stalls. Once you get a feel for it and are able to stall successfully then move on to the landing.



FLY TO OUTER EDGE OF WINDOW



PUSH IN THE BOTTOM HANDLE



PUSH BOTH HANDLES EVENLY AND WALK TOWARDS THE KITE

SPEED CONTROL

By now you have figured out that the speed of the kite can be controlled by you walking towards the kite or backing away from the kite. As we have mentioned previously, a step or two towards the kite will slow it down. A step or two back away from the kite will cause it to rise and gain momentum. This is also true while the kite is flying, no matter what the direction.

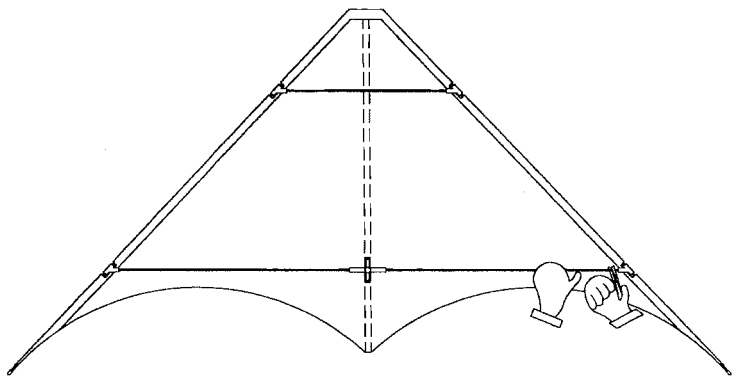
If you have a chance to watch a team flying a routine you'll see how often they use this technique. This adds a great deal to the artistry of the performance. It is also a critical technique to use when flying forward towards the ground. The kite will naturally move faster due to the pull of gravity and if you're not ready you will quickly meet the ground head on. By taking a few steps toward the kite you will slow down this descent and give yourself time to pull out just before meeting the ground.

This can also be used to maintain an even speed through your flight path. Although a fast descent can be quite dramatic, there may be times when you want to create a smooth, even, gliding affect. By moving back to increase speed while climbing, and moving forward to decrease speed while diving, you are able to level out the overall speed and create that smooth flight.

TAKING A LONG BREAK

When you want to quit flying for a short time and if you are in a crowded area, it is best to unhook your lines from the kite and wind them in. This will avoid someone running across your outstretched lines and possibly tripping, or dragging the lines with them. If you think that you are not going to fly for an hour or so, you should also disassemble your kite and put it in the bag. This will prevent sun deterioration on the kite skin and will help it to maintain it's bright beauty.

When disassembling your kite, you may find that the rods fit very tightly into the vinyls and removing them can be difficult. If this is the case try using a clothespin to pop the rods out of the vinyls.



When winding the lines onto your handles, it's best to stand in one spot and wind the lines into you. Have your fingers tight on the lines in order to pull out any twists. Which ever direction you wind, also unwind the same. This will limit having twisted lines and also prolongs their life.

CRASHING

AND NO WALK RE-LAUNCH

If you find yourself in a potential crash situation, (the kite and the ground are about to meet), just walk or run, keeping handles in hands, towards the kite. This will take pressure off of the kite and will slow it down enough to possibly allow you to maneuver out of the crash dive or at least allow for a softer landing.

Just remember that the pull on the lines and you moving backwards gives the wind more power on the kite. The pushing of the handles and the moving towards the kite lessens the power of the wind.

When learning, try to have a flying partner. They can be your best friend in this time of need. Then once you have gained the hours and don't need the help you can give them a kite and become their flying partner. Down the road you can try pairs flying.

If you do find yourself flying alone and your kite has crash landed, quickly stake down your handles and run down to the kite. Observe caution as you approach. Sometimes a downed kite will seem to go into convulsions, jumping up and down as it spins erratically out of control. The only thing to do is grab it and assess the damage.

Hopefully you have not broken a rod. If you have, your flying day is over, unless you are fortunate enough to have brought along extra rods. Generally, though, you'll find that a rod has only popped out of it's connection

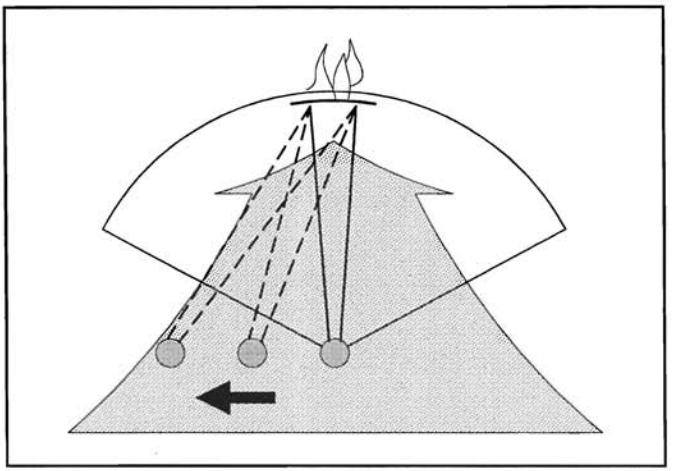
in the vinyl. If this is the case rejoin and secure all other connections. Make sure that the lines are not twisted around a wing tip and then rotate your kite to untwist the fly lines. Set the kite upright with the nose tilted back away from the wind and return to your handles to resume flight.

LEADING EDGE LAUNCH

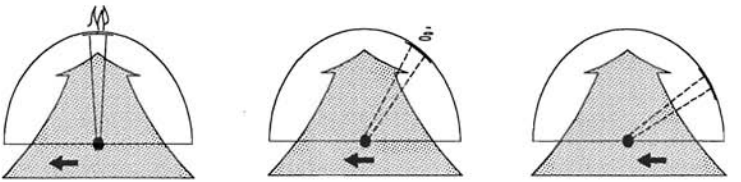
In time you will not have such dramatic crashes. Your crashes will be, more or less, medium soft landings, without the popped rods and lines twisted around wing tips. To take off from this type of crash without staking the handles and walking down to the kite or relying on a partner, you can do it from your position at the handles. This is called a Leading Edge Launch.

Lets assume that your kite is lying on the ground on it's right leading edge with the nose pointing out to the right. If the kite is in the middle area of your wind window you need to walk, cross wind, to the left of the kite in order to place the kite at the outer right edge of your wind window. The easiest way to accomplish a leading edge launch is to have the kite in the far outer edge of the window, (right side or left), with the nose pointing out.

Once at the edge, ease the top wing toward you by pulling the top handle into you, while at the same time keeping slight tension on the bottom line. It may also help to back up as you do this giving the kite more power and lift. Continue until the kite comes off of the ground and then pull back both handles for more power, gradually pulling the inside handle into you, which will turn the kite around towards the center of the window.



MOVE TO PLACE KITE AT EDGE OF WINDOW

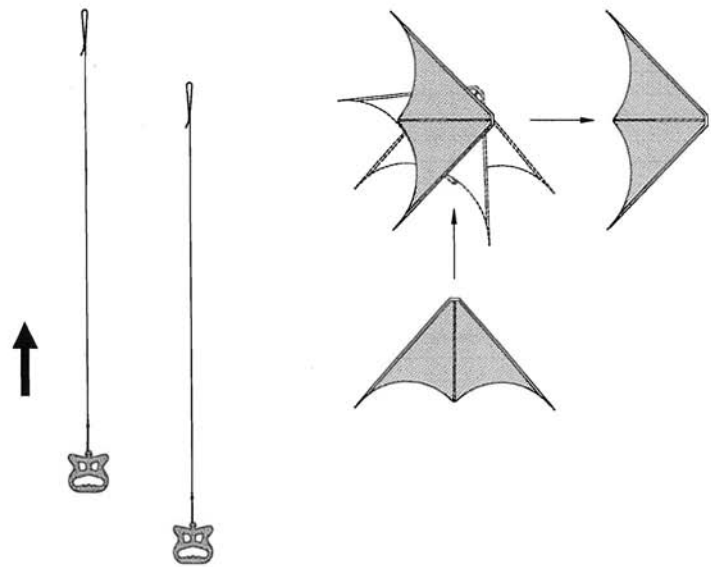


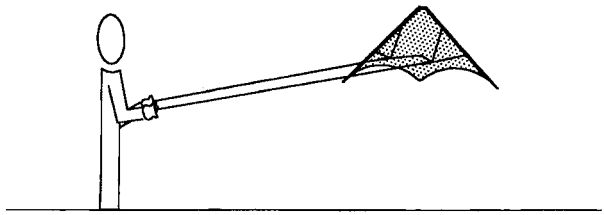
Your body is always at the center of your wind window. When you move so does your window.

This maneuver does not take long to master and can be done with any kite, although some are easier than others due to their design. The most common problem is pulling the top handle too much and not having enough tension on the bottom. This is a balancing act.

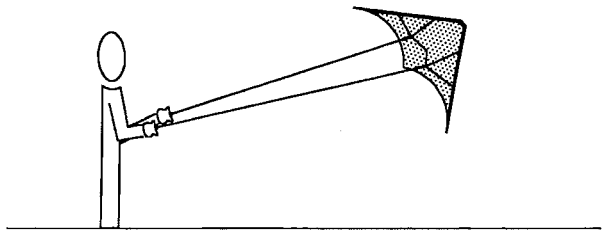
SLIGHTLY BEYOND BASIC

To get a more precision look into your flying, try pushing instead of pulling the handle. For instance when you pull the right handle into you to turn, you are pulling that right wing of the kite into the wind. This gives the opposite, or left, wing more lift which causes it to want to fly around the other wing. For a more exact, precision look, try pushing the left handle out towards the kite. This has the same effect on the kite but in a pivotal, exacting way. This is called a push turn, a push out and a pull back, (like a punch or jab at the kite). A push turn provides a nice angular turn and when you bring that handle back to being even with the right one in order to stop the turn or spin, the kite will stop quicker and more precisely.

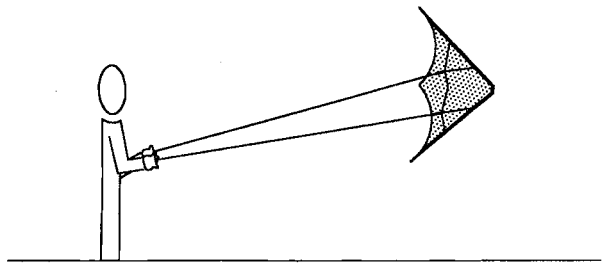




FLYING STRAIGHT - HANDLES TOGETHER



PUSH OUT LEFT HANDLE - TURNS KITE TO RIGHT



BRINGING BOTH HANDLES TO EVEN - RESUMES STRAIGHT FORWARD FLIGHT

While a push maneuver provides fine angled turns, a pull instead of a push will turn the kite in a rounded and graceful turn. Advanced flyers do both push and pull movements within their routines.

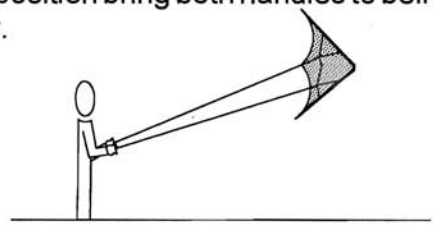
In heavier winds doing a push turn is an extremely

fast out/in punch type motion which provides a quick snap turn.

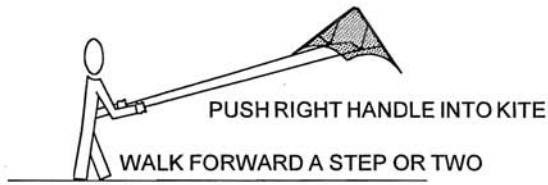
STALLING

At this point you have learned the basics of flying the kite in a forward path and you have learned how to land the kite. Now you can taste the frosting on the cake and learn to not fly the kite.

We have mentioned using a stall to land the kite. Stalling is also great fun while flying. It can have a great effect on your style and is fun to do and watch. With experience it can even be done in the middle of the wind window. To start, your best bet, is to try it over to one side or the other of the window where the wind pressure is the least and the kite will stall the easiest. Fly from say left to right and above eye level, push the bottom, or in this case the right handle, into the kite to stall it and walk toward the kite to continue the stall. Once the kite is in an upright position bring both handles to being even with each other.



FLY TO EDGE OF WINDOW



STALL THE KITE

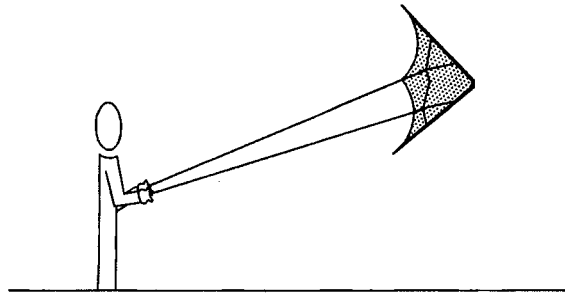
Try to sustain the stall as long as possible. If the kite wants to fly forward walk toward it to keep it in the stall. If the kite is losing altitude too fast, or if one wing tip is falling, give a quick jerk to control and maintain the stall.

A snap stall is a quick stall performed using a snap type motion. It is one of the most aggressive ways of pulling the wind out of the kite. When in the horizontal position flying from left to right, pull on the top handle, (or left handle), to initiate an upward turn while at the same time pushing out the other handle. When wing tips are coming parallel with the ground, bring both handles to even with each other and push both forward, toward the kite, while taking a step or two forward also. This puts slack in the lines thus allowing a stall. Running forward may be necessary in heavier winds.

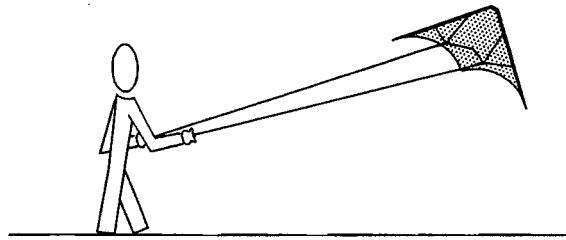
In explaining this move it may sound as though the motions are slow and well thought out. But alas this is not so. In order to achieve this type of stall the movements are actually very quick. As in a punch type motion, or snapping motion.

To achieve this quick motion, practice the hand movements without handles or kite. Make the snapping motion as quick as possible. When your hands become a blur, as you look at them, you'll know that you are doing it right.

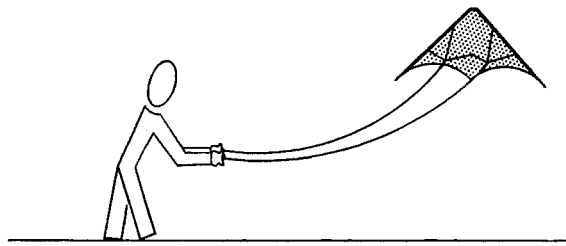
Heavy winds require more aggressive moves and a quicker pace as does being in the center of the window. Just remember that this type of stall can be done anywhere in the window, in any type of wind conditions. If you go for the lighter and easier side of life in order to learn, than the fast paced world of the ultimate, heavy wind, snap stall will be much easier to accomplish.



FLYING LEFT TO RIGHT ACROSS WINDOW



PULL LEFT HANDLE - PUSH RIGHT HANDLE



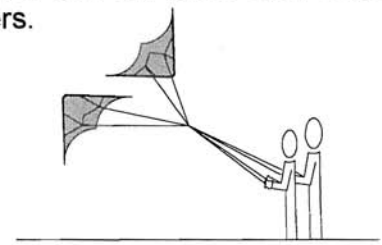
HANDLES EVEN - SLACK IN LINES

Bridle adjustments are also important. With the nose backed out, the kite will stall easier. With the nose into you the kite will want to fly rather than stall. The kite, the bridle, the pilot, and the wind speed, all work together to perform a correct and perfect stall.

Once you have accomplished stalling the kite, and can do it successfully over and over again, your kite flying world will take on a whole new dimension and then the real fun begins. You can now let your creativity soar. There are numerous moves being developed by fellow flyer's that use the stalling technique. A new dimension in kite flying has begun including such moves as the axle, 1/2 axle, coin toss, and cascade.

These non-flying moves are exciting and crowd dazzling, not to mention extremely fun for the flyer. Rather than try to explain these moves in this book, which is very difficult to do, we would suggest that you consult your local kite shop, or kite catalog personnel. These people can recommend the best how - to video's on the market. There are several that provide an excellent verbal and visual explanation on all of the different types of kite tricks.

Other good sources to consider are the kite flyers clubs and kite festivals. The clubs, local and national, will give you helpful advise and are often involved in the festivals. The festivals are held in numerous areas across the country and there you will find professional as well as amateur flyer's who are more than willing to give you some pointers.



We hope that this book has provided you with the knowledge necessary to put you on your way to successful kite flying. You'll never regret having experienced this sport and we hope that you enjoy it as much as we have.