PAIR 5 FLYING BY DONNA AND JEFF MCCOWN (a continuation of the article from the Spring 2011 issue of KITING)

Part 3: Basic Maneuvers

Now that you've had a chance to practice follow and flank maneuvers from Part 2, and assuming your kites are not too badly battered, it's time to crank up the aerial mayhem and work on actual maneuvers.

First, there are a couple of things you will need to actively think about, one of them being peripheral vision. As you fly these figures and manuevers, you will not only need to see your own kite but your partner's kite as well. This is where the concept of "big eyes" comes into play. The more sky you can see, the better off you are. So whenever possible, try to see your partner's kite as much as possible.

Also, now is the time to seriously put body stagger to good use. Even with matched linesets, a small amount of body stagger will do a lot to prevent buffeting of the follow kite in turbulent air, sometimes called "tail wash." This dirty air happens when the follow pilot is standing forward of the lead pilot. As the air comes off the sail of the lead kite, it rolls and swirls. This air flows away down wind where the follow kite then flies through it. This buffeting action can make the follow kite very difficult, if not impossible, to control. Here is an example: As the kites fly across the window from left to right, the lead pilot should be standing about two feet forward and to the right of the follow pilot. As the kites near the right side of the window, call an up-about or down-about turn. As the kites make the turn, the lead pilot should take a short step backward, and the follow pilot should take a short step forward to reverse their stagger. If you learn to manage this small but crucial skill, your flying will not only be smoother but will look better as well.

Now let's look at some maneuvers. The first maneuver to learn is simple but quite elegant. This is the Flank Infinity. This maneuver is a simple figure eight on its side (also the mathematical symbol for infinity) where the curves of the "eight" are flown in a downward direction with 45-degree climbs coming out of the curves. To enter the maneuver, fly single file from left to right and one-quarter sky altitude. At window center, climb at approximately 60 degrees to three-quarter sky or just above. Just before you reach the right side of the window, fly a long sweeping curve downwards to just below one-quarter sky. As you fly the curve, lead should take an outside line and wing should fly inside of the lead by about ten feet so that through the half-sky line the kites will be side by side. As you fly through the bottom of the curve, the #2 kite will pull out in front of #1 and lead during the 45-degree climb to the left side of the wind window. Once again, climb to just above three-quarter sky and begin a long, sweeping downward turn. This time #2, who is leading, will take the outside line, and #1, in the follow position, will take the inside line. As with the earlier turn on the right side of the window, as the kites cross the mid-sky line, they will be side by side. As the kites continue through the bottom of the turn, #1 pulls back to the lead position with both kites climbing 45 degrees in single file. Once you have crossed the center window/mid-sky intersection, the maneuver is complete. This figure should be centered in the window with the mid-point of the 45-degree climbs intersecting with the center point of the window.

The next maneuver divides the window into four loops instead of two. This is the Flank Cloverleaf. For this explanation, we will enter the figure from an upward vertical line, even though it can be entered from any of the four directions. First, visualize the wind window divided into four equal quadrants by the half-sky line and the center window line. The kites will travel these two planes in both directions and be connected by a three-quarter loop in each quadrant with a diameter of half-sky (refer to Part 2: Calling Maneuvers for a review of this definition). To learn and practice this figure, start by flying a ground pass from left to right with kite #1 leading. At center, call for a flank up. The kites should now be side by side. As the kites fly upward through center window, call "Flank cloverleaf right . . . now." At the execution, fly a three-quarter loop to the right exiting the loop at half-sky. Now the kites should be flying at half sky from right to left with kite #2 leading. Before reaching the left side of the window, call "Down . . . now." Fly a three-quarter loop downward and exiting the loop vertically side by side. The next call will be "Left . . . now." Fly a three-quarter loop to the left symetrically matching the earlier right-hand loop. The exit will be at mid-sky flying left to right with kite #1 leading. As you fly across the window, make the call for the fourth, and final, loop, "Down . . . now." This three-quarter loop will exit in the vertical plane a third time side by side. As you fly vertically through half sky, the maneuver is completed. The beauty of this maneuver is in its graceful curves that can be entered from any of its four directions, thus making the cloverleaf versatile as well.

The "Four Squares" is next in progression. This figure is flown the same way as the Cloverleaf, except each "leaf" is square instead of circular. For this figure, we will use the ground pass and flank up through the center of the window as discussed with the previous figure. Also, as before, visualize the wind window in four quadrants and fly a square in each quadrant beginning with upper right first, then lower left, followed by upper left, and finally lower right. This maneuver happens fairly quick, so detailed calls won't really work. This is a good one with which to practice series calls. After the incoming ground pass and flank up, the series call is made as the kites fly vertically upward through center window: "Four squares, right . . . now." The call of the right hand direction is a modifier to say which direction the first square is entered. If the upper left square had been chosen, the call would have been "Four squares, left . . . now." After the series call to start the figure is made, the first turn is to the right. The kites make a 90-degree turn, and the kites change from side by side to single file, #1 leading at window right. The next call is "Turn." (No need to worry about direction right now. We know we are flying a square.) This is a hard 90-degree turn down, and the kites

are again side by side. At mid-sky, call "Turn" again, and the kites will fly from right to left single file with #2 leading. At window left, you have a choice, so a direction must be named. Call "Down." Again, the kites are side by side. Before crashing into the ground, "Turn" is called, and you should be at ground pass level with #1 in the lead. At center window, "Turn" is called again, and the formation is side by side flying to the top of the window along the center line. At the top of the window, you again have a choice, so a direction must be named. Call "Left." This turn puts the kites again in single file with #2 leading. At window left, call "Turn." This turn is down with a side by side formation. When at mid-sky again, call "Turn" to fly a line from left to right and kite #1 leading. For a final time at window right, there is a choice, so a direction has to be named. Call "Down" and turn to side by side, then "Turn" before crashing, back to single file, and #2 leads. At center window "Turn" is called for the vertical side by side line to complete the figure.

Opposing Cloverleaf. This figure is really the same as the Flank Cloverleaf described earlier except the kites will travel the diagonally opposite circles and will make head-on passes in both horizontal and vertical directions. To learn this figure, start out flying a ground pass from left to right single file. At center window, flank up and call "Split cloverleaf . . . now." Kite #1 splits away right and #2 splits left on the turn command. #1 flies the upper right "leaf," and #2 flies flies the lower left. The kites will pass "head-on" in the vertical plane #1 flying down and #2 flying up. The next turn call comes before #1 crashes into the ground. Next, #1 flies the lower left "leaf," and #2 flies the upper right. Then the kites will head-on pass horizontally. With the next turn call, #1 flies the lower right leaf and #2 will fly the upper left. Once again, there is a vertical pass. The final turn will have #1 flying the upper left and #2 flying the lower right. As the kites make the final horizontal pass, flank up. The #1 kite should be on the right and #2 on the left flying upward side by side. The maneuver is complete when the kites have crossed the mid-sky plane. Just like the previous cloverleaf, this one can be entered from any direction. This description is merely an example based upon how it is flown in our current ballet. This figure also makes a good transition between trick sequences.

The next split maneuver is called the Split Flat Infinity. This maneuver looks best when the vertical passes are close and tight and the turns snap together. To begin this maneuver, fly across the top of the wind window single file, kite #1 in the lead. At the right side of the window, call "Half sky down-about . . . now." After the turn, the kites should be flying at half-sky with #2 leading. At this point call "Split flat infinity . . . now." The figure begins at half-sky and mid-window. On the execution call, #1 splits upward and #2 splits downward. At the top and bottom of the window, the "Turn" call is made, and both kites flank left. At the left side of the window, the next "Turn" call cues a vertical pass. #1 passes on the right, #2 on the left. The lead kite goes to the bottom of the window and #2 goes to the top, and the next "Turn" call is made, and the kites flank right. At center window, the next "Turn" call means the kites flank in for another vertical cross, and again, #1 passes on the right, #2 on the left. The next "Turn" is when #1 is at the top of the window and #2 is at the bottom, and both kites again flank right. At the right side of the window, "Turn" is again called. Both kites close to mid-sky, and the final "Turn" is called where both kites flank left to a single file formation, #2 in the lead at the left side of the window. Call "Half-sky down-about . . . now." At ground pass level with #1 in the lead, the figure is now complete.

The final basic maneuver looks more difficult than it is and will occasionally make spectators ask you how you flew it without twisting your lines. Truth be known, they don't twist at all. The twist is an illusion. This maneuver is called the Exchange. The maneuver begins by flying single file up the center of the window. When kite #1 reaches about three-quarter sky, call "Split flank . . . now." Kite #1 splits right, #2 splits left. At the edges, call "Down-about . . . now." Next, fly a horizontal pass, kite #1 above and #2 below, and continue onto the window edge. Now call "Down-about . . . now," and begin a second pass. Just as the kites meet at center window, call "now." Kite #1 makes a down-about and kite #2 makes an up-about. Each kite is now flying the opposite direction on the opposing kite's line. At window's edge, call "Down-about . . . now," to begin the third pass. Call "now" again at window center, and kite #1 flies an up-about and kite #2 flies a down-about. #1 is once again on the upper line, #2 on the lower line, and continuing onto the opposite window edges. At the edge call "Up-about . . . now," to turn back to center window. The next call will be "Flank up . . . now." At the center line, both kites flank up into a single file line as when the maneuver started.

These manuevers will give you a starting "playbook." Don't forget that you can also change the directions of entrances and exits and, therefore, change the entire look of the maneuver. As usual, don't be afraid to use your inmagination, experiment, and above all, have some fun! k