

# SOP for E2-C FCLP and Carrier Pattern Hawkeye

The goal of the FCLP/Carrier pattern is to arrive at a consistent and repeatable abeam point each pass. This allows for a constant angle of bank during the approach turn and makes it easier to manage the energy state of the aircraft. A consistent abeam requires focused airwork, discipline in the crosswind turn, downwind track, and abeam distance recognition.

## CROSSWIND TURNS:

The appropriate crosswind turn is specific to the aircraft type. The E-2 crosswind turn is flown at 150 KIAS and 30 degrees AOB; the C-2 crosswind turn is flown at 130 KIAS and 30° AOB. It is critical that the airspeed and AOB are maintained during the entire crosswind turn. Failure to do so will result in the aircraft being either too tight, or too wide. Additionally, for both the E-2 and C-2, the aircraft must be in coordinated flight. Failure to fly a coordinated turn (centered rudder ball) will negatively impact your turn radius.

## DOWNWIND:

Maintain 150 KIAS after leveling the wings on downwind and begin flying the appropriate track. Ground track can be found on the MFCDU along with the wind direction and magnitude. Initial downwind track should be the reciprocal of runway heading until winds can be evaluated. Once the aircraft reaches midfield execute a level speed change to on-speed. Continue to maintain track and begin to look for the abeam point. Evaluate the winds to adjust the downwind track on subsequent passes to arrive at the optimum 180 position. You do not change your airspeed in the crosswind turn to compensate for winds.

## ABEAM:

The abeam is the first and most critical checkpoint of each pass and is defined as directly abeam the intended point of landing. At the abeam, you begin timing to the 180. The goal is to arrive trimmed up, hands-off, onspeed, at pattern altitude, with zero VSI. Timing should be between 10 to 15 seconds before turning at the 180 depending on winds, and must result in a groove length of 15 to 18 seconds. A good abeam distance will be between 0.9 and 1.1 DME. When locating a visual checkpoint, find two ground objects that can be lined up to help reproduce a consistent position.

## 180:

The 180 is the turn point and should allow the aircraft to roll out with a 15-18 second groove length. If the turn point is too tight/wide then the track must be adjusted on the next pass. **It is critically important that airwork from the crosswind turn to the 180 be precise so that the downwind track is the only variable that is being adjusted each pass.**

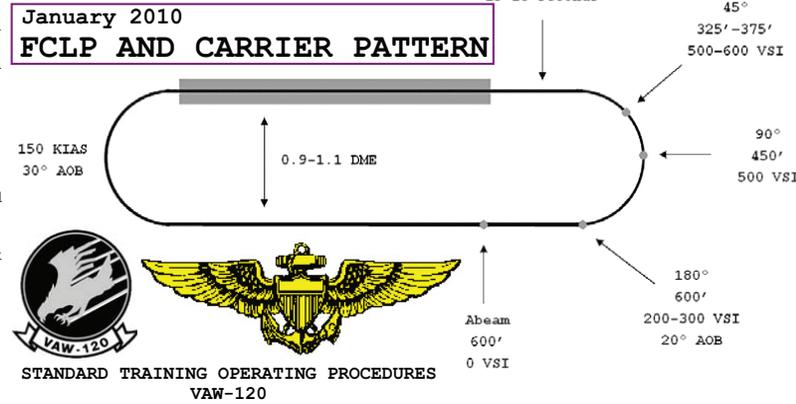
## 180 TO THE 90:

Using 20° AOB, set your rate of descent to approximately 200-300 fpm (for a 600' AGL pattern) to reach the 135 position at 525' AGL and the 90 position at 450' AGL. The key to flying a disciplined approach turn is to maintain a focused instrument scan (VSI, AOB, rudder ball, altitude, and AOA) while

constantly trimming the aircraft. At the 90, look outside to evaluate the turn rate. Adjust AOB as needed in order to intercept extended centerline.

## 90 TO THE GROOVE:

Adjust the rate of descent to 500 fpm and maintain an on-speed, 20 degrees AOB. After looking outside at the 90, utilize an inside/outside scan to the 45. At the 45 your altitude should be between 325-375 AGL with a 500 fpm descent and begin to transition to an outside scan. Adjust AOB to reach extended centerline with 15-18 seconds of groove length. Rollout on centerline with the aircraft fuselage aligned with the runway. Maintain centerline using wing-down, top rudder as required during crosswind landings.



STANDARD TRAINING OPERATING PROCEDURES VAW-120

<http://www.public.navy.mil/airfor/vaw120/Documents/VAW-120%20E-2C%20SOP%20Manual%20-%20Jan%202010%20c1.pdf>

