

CHAPTER THIRTEEN FIGHTER GAMEPLANS

The fighter's initial moves at the merge typically define how long the fight will last. A poor decision could potentially put a fighter defensive throughout the rest of the engagement. A good decision, however, can make for a quick kill. Read these paragraphs carefully as these scenarios will help define each fighter's initial moves at the merge.

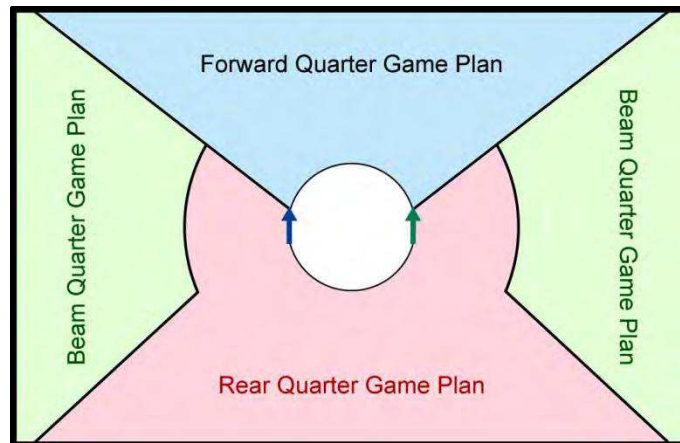


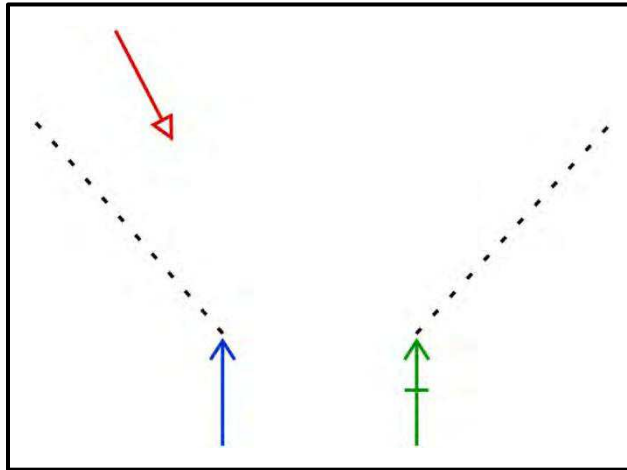
Figure 13-1 Fighter Gameplans

We will divide the fighter's gameplans into three scenarios based on where the fighters visually acquire the bandit:

1. Forward quarter visual pick-up.
2. Beam quarter visual pick-up.
3. Rear quarter visual pick-up.

Here are some good rules of thumb for the fighters regardless of the scenario:

1. If the first fighter can make a neutral, tight merge and has minimum vertical airspeed, he should strive to go nose-high 1C to keep the fight collapsed and possibly bleed down the bandit's energy.
2. The fighters must avoid in-plane defensive flow with the bandit behind both fighters. Getting the fighters out-of-plane is highly encouraged. Redefining early is acceptable as long as the bandit is inside your bubble.
3. Do not commit a BFM error in order to set out-of-plane or out-of-phase flow.

1300. FORWARD QUARTER VISUAL PICK-UP**Figure 13-2 Forward Quarter Visual Pick-up**

A visual pick-up in the forward quarter is the most offensive situation for the fighters; however, it has the highest closure rates. Forward quarter closure is, on average, three seconds per nautical mile, so time is limited, requiring expeditious comm and maneuvering:

“Mace 32 tally 1, left 11 o’clock, 2 miles, 5 low.”

“Mace 31 tally 1.”

Both fighters must execute the appropriate engaged comm while immediately turning nose-on to the bandit, in order to collapse any available turning room. The fighters should apply engaged fighter criteria to determine the “first guess” roles based on the geometry of the initial merge. After the initial merge, the fighters must communicate their roles that are now defined by the bandit’s lift vector placement. Additionally, the second fighter to the merge should use descriptive comm, as required to build SA for his wingman.

The initial engaged fighter should execute his best 1v1 BFM. *If possible, a good gameplan for the first fighter is to take out any turning room at the merge, and then maneuver pure nose-high 1C, with his lift vector in lead of the bandit.* This keeps the fight tighter, affording less weapons separation for the bandit, and provides the best chance for the free fighter to set out-of-plane/out-of-phase flow.

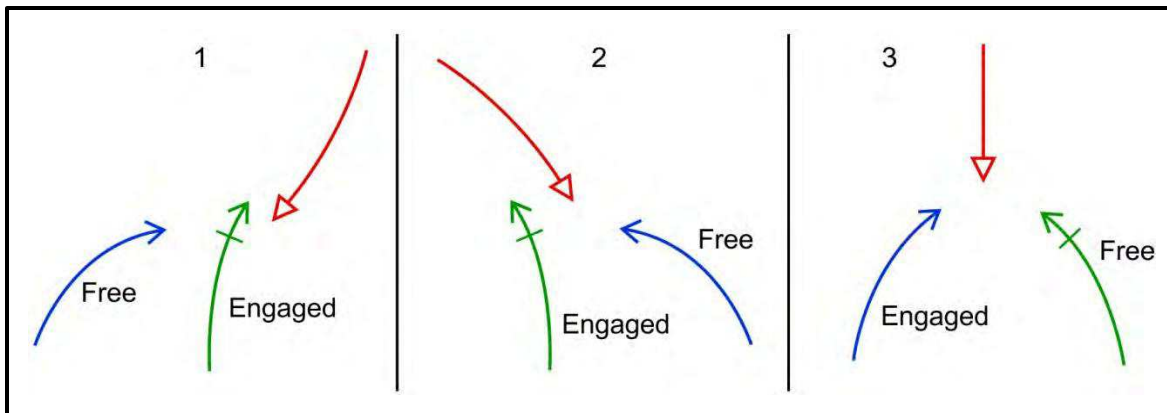


Figure 13-3 Initial Engaged/Free Fighter Roles

Defining Roles and Initial Moves:

When we breakdown the forward quarter scenario we see that if the bandit is outside the section, both fighters must immediately and aggressively turn nose-on to the bandit to avoid giving up turning room. If the bandit is between the section, and favoring one side of the formation, then the near fighter should make a tight, neutral merge, and the far fighter should aggressively maneuver nose-on to the bandit to take out any turning room. In either case the first fighter to merge is initially engaged. If the bandit comes directly between the section, then the tac lead is by default the engaged fighter, and is expected to aggressively maneuver to engage the bandit. The tac wing should take out turning room and watch for his wingman to make his initial move.

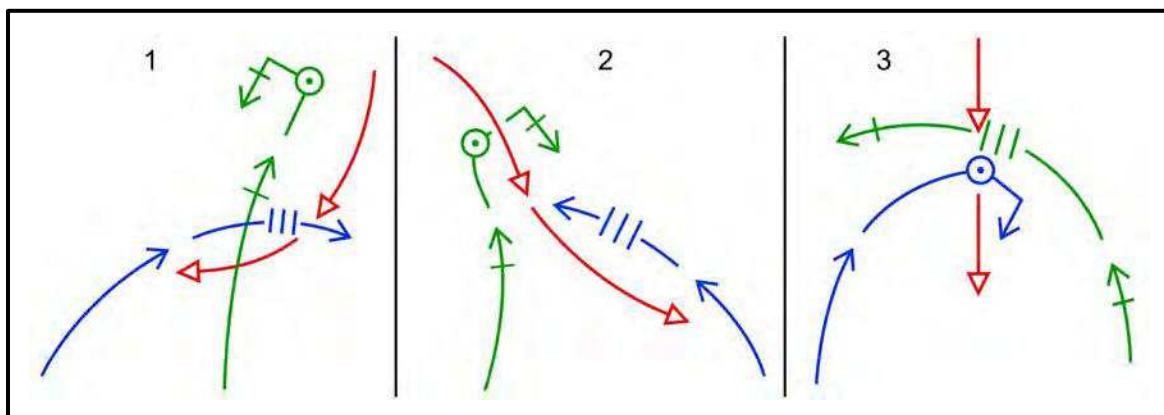


Figure 13-4 Fighters' Initial Moves

In all three cases, the engaged fighter should maneuver pure nose-high 1C, and assess. The free fighter now has a 2C option to create out-of-plane and out-of-phase flow.

One Fighter No Joy:

If one fighter is no joy approaching the merge, the fighter with higher SA should use directive and descriptive comm to drive flow and communicate the bandit's position. The no joy fighter should maneuver aggressively per the directive comm. If the bandit is on your side of the formation, an immediate hard turn to the stated clock-code will take you to the merge. Then, scan forward of your nose to gain tally. If the bandit is on the opposite side of the formation, point your nose slightly ahead of your wingman, scanning in front of your wingman's nose for a tally.

Bandit Only Tally One:

If the section enters unobserved, maneuver to take advantage of this situation. Utilize the turning room available to obtain an offensive advantage and a quick kill. The bandit may be tally one and turn his tail to a fighter with his initial move. Should this happen, the bandit has committed a BFM error, and the fighters should aggressively maneuver for the quick kill.

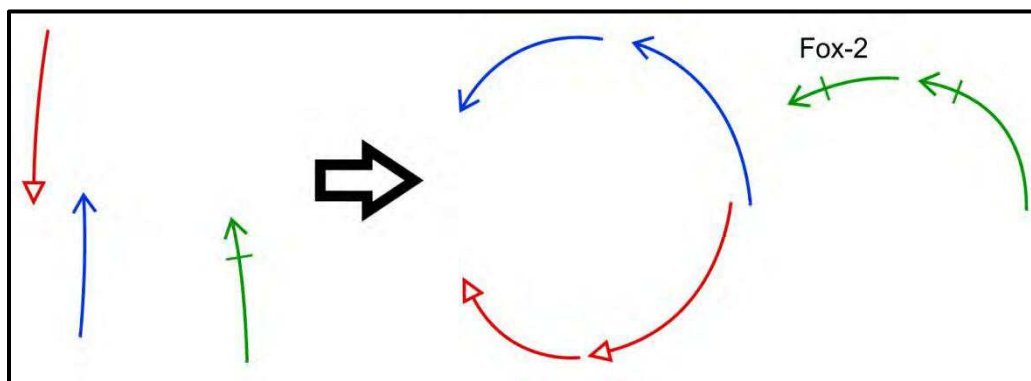


Figure 13-5 Forward Quarter Quick Kill Scenario

1301. BEAM QUARTER VISUAL PICK-UP

When the fighters pick up a tally in their beam quarter, they should execute a break turn into the bandit using proper engaged comm. A break turn for 180 degrees, however, is inappropriate for this scenario. Therefore a “break left/right 90” call is used. Both fighters should continue the break turn only as long as required to take out turning room. Once a tight pass is achieved, ease your pull to conserve your energy. “First guess” roles define the engaged fighter as the first fighter to the merge:

“Nickel break right 90, tally 1, right 3 o’clock, 2 miles, level.”

“Nickel 62 tally 1, chaff/flares.”

Initial moves at each merge will heavily depend on merge geometry and each fighter’s energy state. The fighters will have an energy deficit in reference to the bandit and may be at an angular disadvantage as well. *A good gameplan is for the first fighter to turn across the bandit’s tail,*

level to slightly nose-low, and for the second fighter to check turn across the bandit's tail, and reverse (nose-high if able) in order to set out-of-phase and out-of-plane flow. After the initial merges, the fighters should assess the bandit's lift vector placement and communicate roles accordingly. The second fighter to the merge should use descriptive comm, as required to build SA for the near fighter.

In general, if at the merge the engaged fighter is below minimum vertical airspeed, nose-high is not wise. A level-to-slightly-nose-low initial move across the bandit's tail, capturing the upper end of the rate band, is the best and perhaps only option for the first fighter to the merge. However, if the engaged fighter's energy state allows for a nose-high gameplan, he may execute one. An example of this may be a low-to-high stacked merge in which the engaged fighter can early turn nose-high and gain angles. Remember to communicate your intentions in this case as this was not the fighter's pre-briefed gameplan. Either way, the free fighter must monitor the engaged fighter's initial move and adjust accordingly.

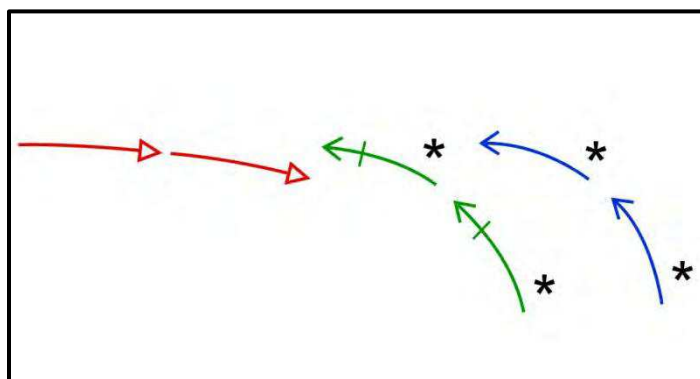


Figure 13-6 Beam Quarter Maneuvering (Initial break turns)

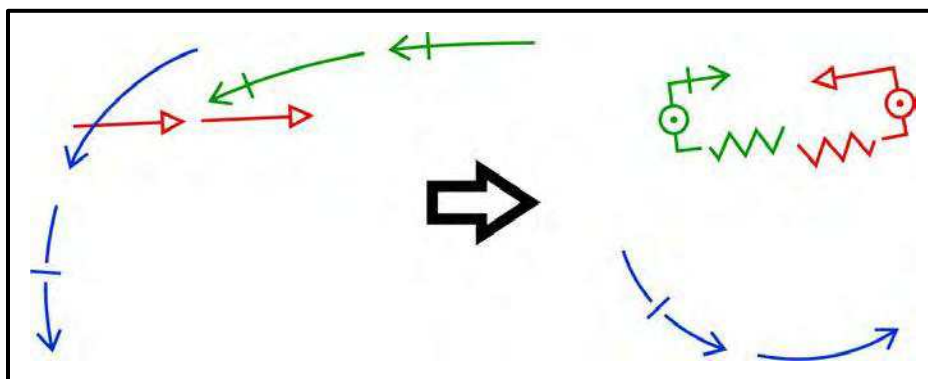


Figure 13-7 Beam Quarter Maneuvering (Forward of 3/9 Line)

Initial Geometry:

During the initial visual pick-up, the more aft the bandit is relative to the fighters, the more defensive the fighters will be. For example, if the fighters pick up the bandit forward of their

3/9 line, they both should be able to take out all turning room, and force high-aspect merges. If the fighters pick-up the bandit aft of their 3/9 line however, the near fighter will not be able to take out the turning room. He will have a wide pass with the bandit and may not be able to deny the bandit angles. The free fighter should still be able to take away turning room, but at the cost that his airspeed will likely be less than minimum vertical airspeed; his ability to set out-of-plane may be difficult. The fighters are at a significant energy disadvantage in this case, which may lead to an angular disadvantage if the engagement lasts too long. Timely maneuvering and comm are required to survive.

An even more defensive scenario is if the bandit is not acquired until inside 1 nm of the fighters; in this case, neither fighter will be afforded the ability to take out turning room, and the flow will look more like the flow for a rear quarter gameplan, which we will talk about in the next section.

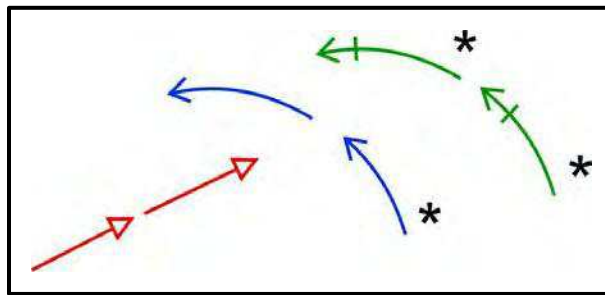


Figure 13-8 Beam Quarter Maneuvering (Aft of 3/9 Line)

Bandit Tally One:

If the section enters unobserved by the bandit, maneuver to take advantage of this situation. Utilize the turning room available to obtain an offensive advantage and the quick kill. The bandit may be tally one and turn his tail to a fighter with his initial move. If this is the case, aggressively maneuver for the quick kill.

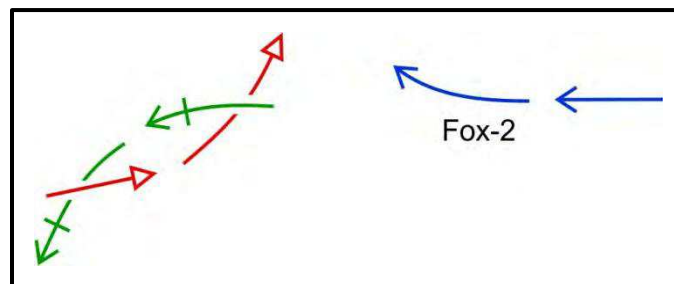


Figure 13-9 Beam Quarter Quick Kill Scenario

1302. REAR QUARTER VISUAL PICK-UP

A visual pick-up in the rear quarter is the most defensive scenario for the fighters. Each fighter must initially assume an engaged fighter role, and execute his best DBFM. As the fight

13-6 FIGHTER GAMEPLANS

progresses, reference the bandit's lift vector placement to define roles. Since both fighters are initially engaged, both fighters are responsible for deconfliction.

The initial break turns from the fighters will be determined by the bandit's location. Both fighters should break into the bandit, dispensing chaff/flares. Typically the fighters will break in the same direction, however if the bandit is between the fighters, opposite direction break turns should be used, somewhat resembling a cross turn. ***When in doubt, the fighters should break in the same direction.***

Same Direction Break Turns:

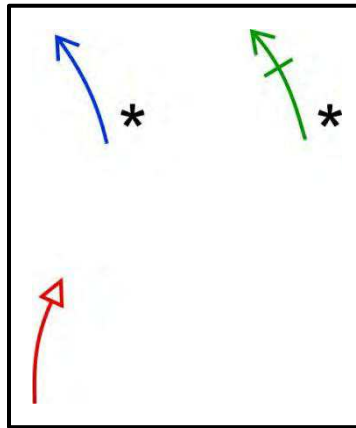


Figure 13-10 Rear Quarter Initial Break Turns

Typically if both fighters break in the same direction into the bandit, it will afford the biggest RAC problem for the bandit to solve. ***An immediate nose-low, or nose-high break turn/maneuver from either fighter, would be a BFM error and should be avoided.*** The fighters should keep their lift vector on to slightly below the bandit when executing their break turns:

“Anvil break left, tally 1, left 7 o’clock, 1 mile, level.”

“Anvil 11 tally 1 chaff/flares.”

“Anvil 12 chaff/flares.”

When the bandit is acquired behind the section, it is possible that his nose may sweep through, or toward, each fighter as the bandit engages. It is paramount that a fighter only redefines if his criteria have been met! If both fighters redefined nose-low, it would allow the bandit to be offensive on both fighters on the deck where survival options would be extremely limited.

If the bandit turns to engage the near fighter, it will look very similar to a defensive perch set. The near fighter should redefine as appropriate, while the far fighter pulls for a shot. The bandit's error will lead to a quick kill.

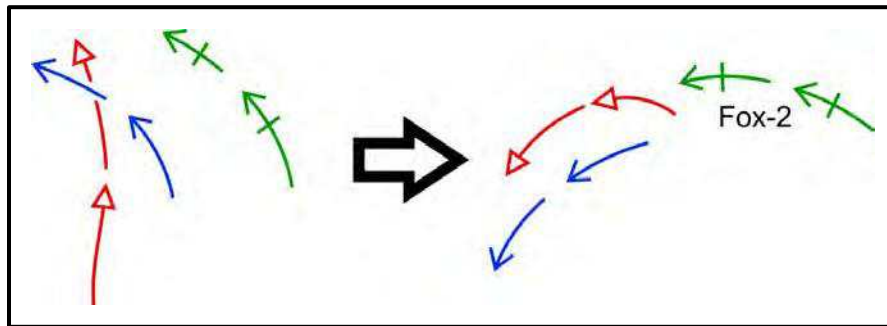


Figure 13-11 Rear Quarter Quick Kill Scenario

If the bandit is proficient, and tally two, he will not turn his belly to the far fighter. The bandit will try to lag both fighters in an attempt to execute an OBT at the AWE of the far fighter. As long as you can pull the bandit forward, continue with the energy excursion. Recall from DBFM, as soon as you can no longer pull the bandit forward on your canopy, you should intercept a compromise pull. Be patient and assess the bandit's actions to make the most appropriate SEM and DBFM decisions.

As the far fighter, if you can still pull the bandit forward on the canopy regardless of sensor nose, keep pulling him forward. By continuing to pull him forward you may be able to force a high-aspect pass, or an ICFPOS. Use expendables and continue to fight your best DBFM 1v1 to survive.

As the far fighter you need to continue the pull and assess the bandit's pursuit:

1. Can you force a high-aspect pass?
2. Can you force an ICFPOS?
3. Does the bandit initially lag, attempting to enter your AW?
4. Did the bandit lag too long and get stuck in lag?

Let's look at each of these situations:

Far Fighter Creates a High-Aspect Pass:

If the far fighter can force a high-aspect pass (<1000 ft) after the initial break turn, he should assume the engaged fighter role, and attempt to set 1C flow away from his wingman. The engaged fighter should use descriptive comm as required to build SA for the free fighter.

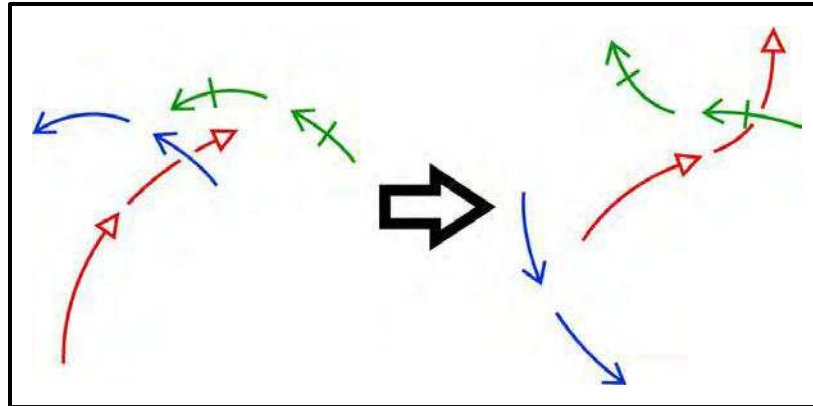


Figure 13-12 Far Fighter Makes a Merge

Bandit Overshoots Far Fighter:

If the bandit flies pure pursuit, there is a chance for an in-close overshoot. The far fighter should defeat any shots and then take advantage of this overshoot, reverse, and engage the bandit in the flats or 1C away from his wingman.

Bandit Stuck in Lag:

If, during the 2C defensive fight, the bandit is having difficulty bringing his nose to bear on the fighters (e.g. stuck in lag), the fighters should not continue in this lufberry with altitude below them. Since the engaged fighter does not want to sacrifice his altitude unnecessarily, the free fighter should use the available altitude to set out-of-plane flow, all the while potentially gaining angles on the adversary.

Bandit lags to attempt an AWE of the Far Fighter:

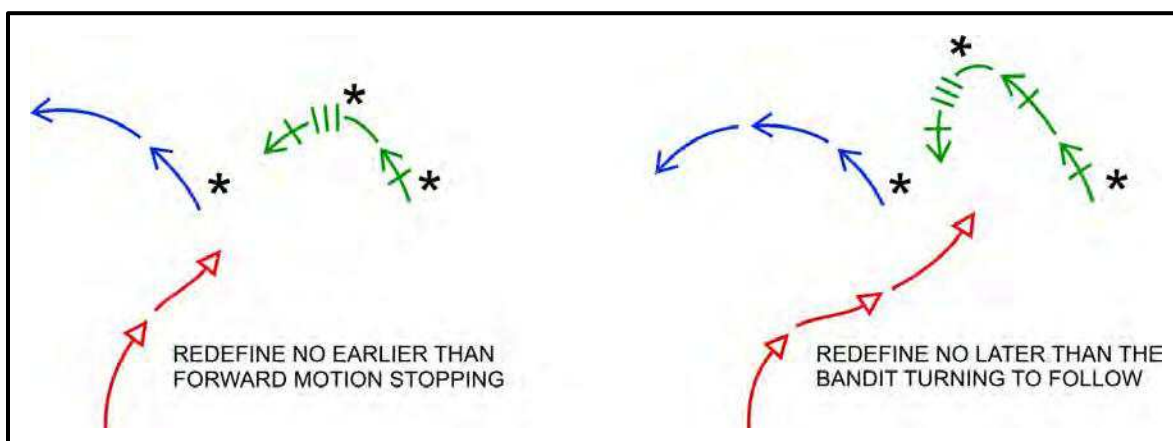


Figure 13-13 Far Fighter Redefines

If the far fighter assesses the bandit is attempting to lag to his AW, then it is time to redefine before sensor nose is a factor. Think about the sight picture from your basic DBFM perch sets and redefine when your criteria have been met (as a rule of thumb, do not redefine any earlier than forward motion stopping on your canopy, or any later than the bandit reversing his turn to follow. This redefinition should come within the first 90 degrees of turn for the far fighter.) ***It is highly recommended to avoid in-plane, 2C defensive flow with the bandit behind both fighters.*** You can afford to be flexible with DBFM Axiom number three (target aspect decreasing), because as long as the bandit is inside your bubble, a redefinition is not a BFM error, and will greatly aid the section's SEM gameplan. When a fighter redefines, it creates out-of-plane flow and forces the bandit to choose which fighter he wants to engage--the nose-low fighter, or the level fighter.

If the far fighter misses his redefinition opportunity due to a late tally, fight geometry, or poor headwork, the fighters will be stuck in-plane, defensive 2C flow. As MATC play out, the bandit's sensor nose will become a factor to one of the fighters, potentially to the outside fighter first. This fighter must now execute his redefinition.

In either case, the redefining fighter must be visual of his wingman before executing the redefinition. ***Sacrifice tactics for safety in a training environment.*** A "redefining" call should be made to increase fighter SA:

"Rage 32 redefining, chaff/flares."

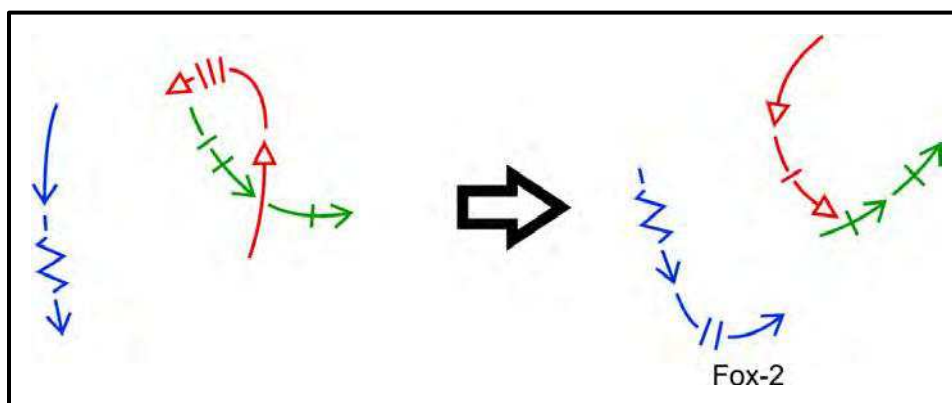


Figure 13-14 Far Fighter Redefines (Bandit Follows)

Now that the fighters are out-of-plane, reference the bandit's lift vector placement to determine roles. If the bandit follows the nose-low fighter, he is engaged. The free fighter should be able to see the fight translating down. Manage weapons separation by either climbing for vertical separation, or by easing your pull for lateral separation (or a combination of both). Getting out-of-phase is not required. Once you have weapons separation, place your lift vector on the bandit and execute an energy excursion for a shot.

If the bandit stays with the level fighter, he is engaged and the nose-low fighter is free. As the defensive flow plays out, the engaged fighter may need to execute his own redefinition. The free fighter is more than likely still below the engaged fighter. If both fighters are blind, use altitude

to deconflict; this scenario will likely result in a KIO, vice continuing the fight. In the training command, due to safety, the bandit shall not intentionally present this scenario.

Opposite Direction Break Turns (Cross Turn):

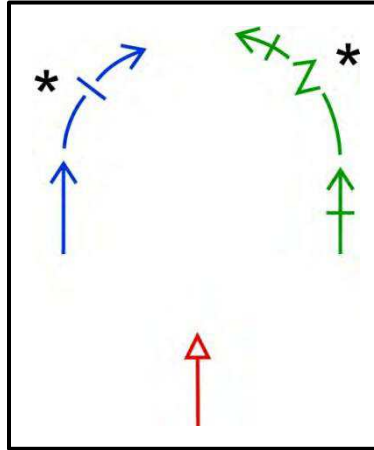


Figure 13-15 Rear Quarter Cross Turn Option

If a bandit is detected directly aft and between the section, then a cross turn is a valid choice. The advantage of the cross turn is it immediately sets out-of-phase and out-of-plane flow, forcing the bandit to make an early decision. The cross turn is like the one you learned in TACFORM, however the high fighter will break slightly nose-high (3-5°), and the low fighter will break slightly nose-low (3-5°). The slightly nose-high and nose-low break turns cause the flight paths to diverge, increasing the out-of-plane problem for the bandit without negatively impacting DBFM and forces the bandit to choose which fighter to engage.

To initiate the flow, be directive and call for a cross turn while describing your tally. This directive and descriptive comm, along with this pre-briefed understanding, will provide the requisite SA to perform this non-standard cross turn. Once the bandit chooses to engage a fighter (i.e. defined by bandit's lift vector placement), define the roles:

“Anvil cross turn tally 1, 6 o'clock, 1 mile, level”

“Anvil 11 low”

“Anvil 12 high”

“Anvil 11 chaff/flares”

“Anvil 12 tally 1 chaff/flares”

The engaged fighter should continue the defensive break turn for as long as he can pull the bandit forward on his canopy. As the bandit turns to follow, monitor his target aspect and motion on the canopy. If the fighters' flight paths have crossed and redefinition criteria (DBFM Axiom number four) have been met, redefine. ***For deconfliction purposes, do not redefine until after the fighters' flight paths have crossed.*** In this scenario, the engaged fighter can be slightly liberal with DBFM Axiom number three (target aspect decreasing). As long as the bandit is inside your bubble, a redefinition is not a BFM error. The advantages of the out-of-plane

maneuver are tactically significant in SEM. Establish deconfliction early and avoid in-plane maneuvering. A “redefining” call should be made to increase fighter SA. The bandit is now forced to decide to follow nose-low or stay level:

“Anvil 11 defensive, redefining, chaff/flares.”

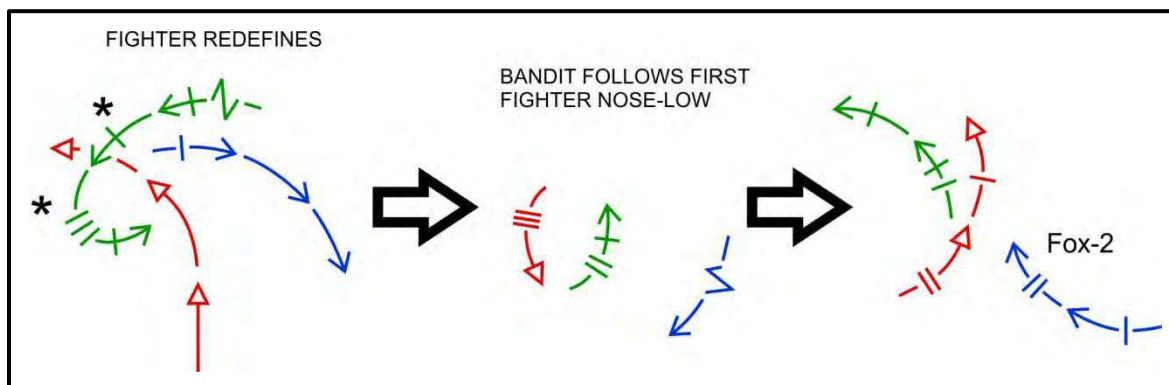


Figure 13-16 Bandit Follows Redefining Fighter

If the bandit follows the nose-low fighter, then he is the engaged fighter. The fighters should communicate the now-established roles accordingly. When the free fighter sees the bandit execute his redefinition follow, extend if required, and reposition the lift vector on the bandit as appropriate, performing an energy excursion for a weapons employment opportunity. The free fighter also has the opportunity to use descriptive comm to aid the engaged fighter in determining the bandit’s actions (e.g. “the bandit’s following you”). Sound comm will keep fighters alive and provide a timely kill.

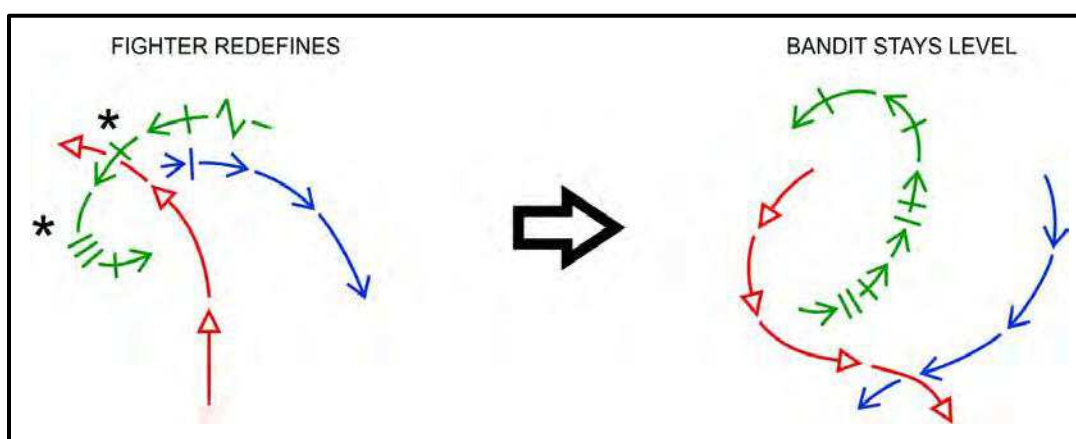


Figure 13-17 Bandit Does Not Follow Redefining Fighter

If the bandit stays level, bandit lift vector placement dictates the roles. The engaged fighter (high fighter) may have a shot opportunity after another 180 degrees of turn. If not, the engaged fighter should control the merge so the bandit is between the fighters (i.e. the bandit is bracketed), as long as it will not be a BFM error. Check turn across the bandit’s tail, then attempt to set 1C flow away from your wingman without making a BFM error. The engaged

fighter should use descriptive comm, as required, to build SA for the free fighter. Continue to update roles as required. In any case, out-of-plane and out-of-phase flow will provide shot opportunities. Utilize sound comm to keep SA high throughout the fight.