



FIGHTER FORMATION FUNDAMENTALS



ASSUMING MAKES AN

Well, airshow activities and summer flying are here again. I wish that were true in the Ohio river valley. I've missed two shows already due to continual rain. Anyway, this is the third in a continuing series of formation related topics. I was looking through a recent USAF Flight Safety magazine the other day and came upon an interesting article. The Flight Safety magazine is a tool the Air Force uses to pass on flying safety tidbits. Some of the articles are in the "I learned about flying from that" category.

Even in an organization that practices formation on a daily basis, simple mistakes are made. Most of the time these mistakes result in nothing more than an intense debriefing. However, in formation, small mistakes can be devastating. Flying formation in fighter aircraft requires our constant and diligent attention whether on the wing or in the lead. A break down in SA (situational awareness) can spell disaster to the whole flight. Keep this in mind as you read the anonymous article from an F-111 driver on a low-level bombing mission:

It was to be the standard range-hopping sortie for a three-ship of F-111s. During the preflight briefing, the flight leader briefed that after departing a bombing range, the flight would rejoin to fingertip formation for a battle-damage check (the Air Force does not use the notation of "strong" left or right fingertip, just fingertip left or right).

The flight progressed smoothly through the low-level and onto the first bombing range. After dropping a half-dozen practice bombs, lead called the flight to depart and transition to another range about 60 miles away. Being good wingmen, no. 2 and 1 and no. 3, followed the prebriefed procedure and rejoined to fingertip formation on our leader's right wing.

We cruised along in this position for a few minutes when suddenly, the leader initiated a hard 60-70 degree bank turn to the right! (it is not unusual in real low-level formation to execute rapid turns or threats, etc., but into the formation is obviously taboo!) The imminent midair collision between three F-111s caused sheer survival instinct to take over. No. 2 immediately pulled straight up and I simultaneously rolled 90 degrees right and pulled to the stall warning horn.

The "Thunderbird Burst" quickly caught the flight leader's attention, as well as that of his WSO (Weapons System Officer), both of whom had previously been unaware of the position of their wingmen. Lead had assumed his wingmen would stay in trail position since the second range was a short distance away, despite what he had briefed, and his WSO never bothered to look to his right to check on the position of the other flight members.

We all survived, but this story could easily have had a very unhappy ending. The lessons learned here are obvious for both flight leaders and their wingmen. What I learned here from it all is that in the flying business, things can go from smooth sailing to life threatening with absolutely no warning at all!

"Anonymous"

Well, that's the story. I think there is a lot to learn from the above scenario. Something I see very often is a failure of flight leaders to adequately crosscheck your wingmen. It is the flight leader's responsibility to be aware of the **condition and position** of your wingmen at all times. This is not only to avoid situations like the one described above, but to monitor any problems or potential problems your wingmen might encounter. The leader should periodically scan the wingmen's aircraft and make a mental note. He could be experiencing a problem and be NORDO, therefore unable to raise you on the radio. This mental note also allows you as flight lead to properly debrief the flight regarding position, etc. This is standard practice


"flying fighters is not a matter of life or death - it's much more important than that"

in the military; however, as you have just read, even experienced fighter pilots make mistakes. Another thing to learn is to fly defensively. By this I do not mean as wingmen to fly outside prescribed formation position guidelines. In the words of General Chuck Yeager, "always leave yourself an out". In the back of your mind as a wingman you should always be cognizant of how you would break out of any formation if need be.

Finally, in the words of the Flight Safety magazine editor, be careful when you assume what someone else is thinking. Be direct as a flight lead and leave nothing to chance. As a wingman, a simple "Two's in" would have reminded lead of what the situation really was in the above case. SA is a fragile thing that needs inputs from everyone to be properly maintained.

On other notes, Planes of Fame Aviation Museum of Chino, California has joined our program. Welcome to Steve Hinton, Ray Dieckman and all the crews at POF. Ray has been holding ground schools out there with our manual and we appreciate his efforts in maintaining this professional, safe operation. Also, the new patches are in production and will hopefully be to you no later than 10 July. They are outstanding and I have attached an enlarged photocopy for your viewing. Hope everyone has a great summer flying season. If we ever make it out of Louisville on the next ARK, we'll see you at Oshkosh 97.

Check Six,

A handwritten signature in black ink, appearing to read 'Brad C. Hood', with a stylized flourish at the end.

Brad C. Hood