Feature

Cooperative Multiplayer - Practical Tips

by Guest Writer **Fran Mulhern**

Introduction

Firstly, this is *not* an article on Basic Fighter Maneuvers (BFM). For those of you interested, I would recommend either Shaw's Fighter Maneuvers and Tactics or, for a more concise explanation, Dan Crenshaw's "How to live and die in the virtual sky", available from here: http://www.flightsimcentral.com/fsc/howtolivandd.html at *Flight Sim Central*. Instead, what this article is is an attempt by the writer to give some practical pointers to those of you who often fly multiplayer combat flight simulations cooperatively with others, whether as part of an organized 'squad' or simply with a group of friends on a more ad hoc basis. It is my hope that after reading this article you will have learned at least something that will contribute to making your online sessions more enjoyable. We all perform better the more we enjoy something — and flight sims are no different.

Please note that this article assumes two things. Firstly, that the flight simulation uses features from modern (third or fourth generation) combat aircraft. Large parts of this article will be applicable in any event, but the article is written specifically with those aircraft in mind. Secondly, that each member of your team has voice communications: I recommend *Ventrilo*, available here: http://www.ventrilo.com. Voice communications are, I believe, *essential* in promoting a cohesive multiplayer experience since it is really only by speaking in real time that each member of the mission can pass on, and receive, information and warnings.

I have split the article into sections, each providing some practical pointers in relation to specific 'phases' of your

online experience. I again emphasize that this article sets out to be neither exhaustive nor definitive.

Briefing

The briefing needs no introduction from me: this is where the player learns about the mission objectives, potential threats (whether surface or land based), support units available, and any other information that may be relevant to the mission (for example, divert airfields etc.). Let's take some of these in turn.

- *Mission objectives.* Let's get one thing straight right away — the purpose of any given mission isn't to shoot down or blow up as many bad guys as possible. The purpose of the mission, and the criteria by which the mission will stand or fall, is set out in the *mission objectives*. By way of example, let's assume that the mission objective is to protect, against air threats, a flight of B-52s on their way to a target. In our example, we'll assume that there either are no ground based threats or — to the extent that there are any — that there are other friendly forces taking care of them prior to the arrival of the B-52s. Our job, in other words, is purely to protect the B-52s from enemy aircraft sent up to intercept. A few minutes into the flight, you're informed by AWACs that group of enemy fighters are closing on the B-52s' at two o'clock — in other words, coming at the bombers from their front right. You're leading a group of four F-15s, and you immediately launch yourselves towards what turn out to be four MiG-23s. Your group kills one before the other three turn and flee. You feel the natural temptation to pursue: but should you? These aircraft could turn around at any time and continue their assault. Think for a second before reading on, and make your decision.

  Surely the answer here has to be a resounding "no". Again, this goes back to the mission objective which *isn't* to kill as many enemy fighters as possible. Should your flight go charging after the MiGs in our example, you may well find that another enemy group approaches the B-52s from a different direction — and by now you're 70 miles away from the B-52s and unable to respond in time. Sure, you might get your four MiG-23s, but the two MiG-31s successfully shot down all four B-52s. Your group has bagged two thirds of the bad guys, but you've still lost. So... mission objective, mission objective, mission objective. Keep it in mind, and live by it in the game.

- *Enemy threats.* Here, intelligence is important. You need to know what each platform that you're likely to come up against is capable of doing. It is only by knowing the limitations of each threat that you will be able to react against and defeat it. For example, are the SAMs facing you high or low level systems? Knowing this can have an impact on the mission profile, since one is hardly likely to fly NOE (nap of the earth) if the route to the target is protected by low-level SAM systems and mobile air defense platforms such as the ZSU-23-4. Likewise, the likely direction and make-up of any air threat, such as MiG-31s or SU-27s, is likely to dictate a ground attack aircraft's route to the target — snaking through valleys will be much more important where air based threats are on the prowl looking for you.

- Know your target area. Falcon 4 is great for this. F4 provides a feature whereby the player can see a 3D make up of the target area and the surrounding geographic features. This can be very useful when deciding on routes to the target (if flying a ground attack mission) or identifying routes that may be taken by opposing ground attack aircraft (if flying an air-to-air mission). As we mentioned above, "snaking" through valleys can be a very good way of "losing" yourself in the ground clutter and hiding yourself as much as possible from the enemy's radar: so such features should always have close attention paid to them.

- Listen to the others you're flying with. The attitude on leadership seems to vary from group to group. I've flown with some groups who have a very rigid command structure where dissent and other opinions aren't really tolerated. Likewise, I've flown with groups where no command structure exists at all, and what you really have is a collection of individuals doing their own thing, only loosely working towards the same goals. The answer, I believe, lies somewhere between the two. No one has the monopoly on good ideas — or good mission planning — and where possible it's useful to have a group debate on tactics and the best way to achieve a mission result. The political philosopher J. S. Mill once said that freedom of speech is useful as it

serves to promote the clash of ideas and, through this, the emergence of the truth. Well, I'm not sure there is any absolute truth in mission planning, but there certainly are better ideas and worse ideas. Group discussions hopefully help promote the former and weed out the latter.

Another useful purpose of such discussions at the briefing stage is team building. By having an inclusive briefing, a team atmosphere can be promoted whereby each member of the mission feels as though they have contributed something useful to the mission. This will hopefully pay dividends when it comes to working together as a team throughout the mission. Team building and team spirit is a theme which I will return to during the remainder of the article.

The Mission Itself

When you're in the game world itself, you may find the following pointers of use:

- *Missile performance*. Remember that the performance of a missile differs depending on aspect. For example, if a missile is said to have a range of 20 miles, you can assume this is 20 miles under ideal conditions: when fired "head on" at a bandit at the altitude as or lower than you. You will therefore find that the same missile is not going to reach a target that's 19 miles away from you and 10,000 feet higher than you are. The reason is that although the missile has a theoretical range of twenty miles, the bandit will be constantly moving in the same direction as the missile — so by the time the missile has covered the 19 miles to where the target was when the missile was fired, the target may well have moved a further 14 miles — and with the missile's energy exhausted the bandit will escape. You may find that in such a situation, you may have to move to within 5 miles or less for a successful shot.

- *Missile aspect*. This follows on from the above. Personally, I prefer to have a missile launched from either way below or way above me. Why? Remember how a missile works: after launch, the motor often only burns for a few seconds. This pushes the missile to its top speed, after which the motor burns out and the missile relies on its kinetic energy to take it to its target. This has several consequences. Firstly, the energy available to a missile is limited, and this becomes much more important once the missile's motor has burned out.

  Let's assume that I've got a missile coming straight towards me, but that it's been fired from 10,000 feet higher than me. Let's also assume that its motor has stopped firing, and so the missile is relying only on its kinetic energy to reach me. On the "minus" side, gravity is helping the missile in its quest to reach me — because I'm lower than it, gravity is pulling it towards me, doing some of the missile's work for it. Theoretically, this should be something to worry about. But in practice? Not necessarily. As the missile closes in on me, I start to pull violently up and to, say, the right. Now, the very same force which worked against me — gravity — works in my favor. Remember that the missile's own motor has burned out, so it's relying on its kinetic energy to reach me. Firstly, by executing such a sharp maneuver I require the missile to "bleed" energy to stay with me in the turn — energy that it won't be able to replace. In addition, the missile is — if I've executed my turn properly — going to have to go from pointing downwards to heading back up again — which gravity, in all its wisdom, is going to try to prevent. So hopefully the same force that pulled the missile towards me will now attempt to pull the missile away from me.

  I mentioned above that I'd prefer something coming at me from high above or down below. I've explained why I'd prefer it coming from high above. But why way below? Again, let's assume the motor in the missile has already burned out. Well, in this situation, gravity is already pulling at it, bleeding its speed off to such an extent that — hopefully — it won't be able to reach me. And if it does manage to get close then hopefully it will have lost so much speed in "the journey up" that it should be fairly easy to dodge.

  Of course, not *all* missile defense is so easy. Often, you'll have multiple threats coming in from multiple angles. The answer? Stay sharp, do your best, and let the others know if you've punched out!

- *Wingman utilization.* This is one that could fill multiple books by itself, but I'm going to be brief here. Firstly,

two (or more) aircraft working together can often be of greater effectiveness than the sum total of their parts. You will almost certainly find AI opponents using “text book” tactics in this regard, and so it’s important to ensure that your own group cohesiveness is maximized. For this topic, I wholeheartedly recommend the chapter on wingman tactics in Dan Crenshaw’s book — short, but thorough and easy to understand.

- *Radio comms.* Use them! Don’t clog up the channel with irrelevant chatter, but be sure to keep your flight lead — and each other — informed of where you are. Subject to the flight lead keeping an open mind on comments from other members of the flight, it’s his job to manage the flight from a formation point of view — and he can’t do this if he’s unsure where you are. If he, for example, asks you to pull left by 15 miles in order to bracket an incoming threat, then do so — and let him know when you’re in position. Likewise, call enemy contacts on your radar, even if you think your lead already has them. Better safe than dead. *Editor's note:* See the SimHQ article on Brevity Codes by Vince Putze here: http://www.simhq.com/_air/air_008a.html.

- *React to threats.* Countless times I have avoided — and have seen others avoid — reacting to a missile warning beep in the hope that “just another few seconds” will enable me to get a shot off. If you have those few seconds, then great. But what often happens is that you will never get your shot off, because while waiting to do so the missile causing the beep will hit you. And when you’re dead you can’t shoot back. This is really just an example of target fixation — becoming so focused on killing your target that you ignore threats. *Don’t do it.* If you’ve got a missile coming towards you then you’d better react. If you’re close enough to your own target, a “snapshot” may buy you some time — a missile shot “down the throat” of your target but without a radar lock. With any luck, this will also force your target to “go defensive”, thereby denying him the opportunity to close on you while you’re still on the defensive. And if you’re *really* lucky, you may even get a kill from it.

- Just to recap on a fundamental piece of advice here: *know your objective*. As I mentioned earlier, it's no good charging off like John Wayne and shooting down almost everything in sight, only to return and find that the package that you were meant to escort has been decimated. Likewise, you can kill all the tanks in the world, but if that surface-to-air missile site is still active, your buddies coming in low to attack the airfield are going to be in serious trouble. To lift a quote from the end of the original Star Wars movie: "stay on target" (note here we’re talking about mission objective — you still need to avoid target fixation mentioned previously).

- I mentioned previously that, while some groups of online players (I'll call them squads from now on) are very coordinated, some just aren't. And some — perhaps most — are in between. Maintaining flight discipline, where each member sticks to his or her task, is extremely difficult — maintaining flight cohesiveness even more so. If just one member of your flight decides to go off and do "his own thing", this can have several effects on the rest of your team. Firstly, it may encourage some of the other less disciplined members to do the same. This can be avoided by a timely comment on comms that everyone needs to focus on their own particular role. Secondly — and much more importantly — someone going off and doing their own thing can create a "gap in the plan". In other words, the task that he or she should have completed will remain unfinished unless you, as flight lead, take steps to address it. Either re-orientate your entire flight so that it attempts to meet the same threats with fewer resources, or simply assign to one person the additional role that should have been performed by your now absent team member. The latter usually requires an extremely competent player, but avoids the situation where the whole team has to shift their position, which can be much more difficult to coordinate.

- Lastly in this section, *"think 3D in the 3D world"*. What I mean by this is that you need to try to develop a sense of situational awareness that won't come naturally to you. A flight simulation on the PC will give you a limited field of view, and it'll usually be very difficult for you to look around as quickly as you could in real life. Likewise, your body is robbed of certain sensations — notably the effect of g-forces. With experience and practice, you will begin to develop a “feeling” for where you are in relation to other objects — both friendlies and enemy and also — very importantly — the earth. A useful tool for this is the very successful *TrackIR system* available from http://www.naturalpoint.com or http://www.rcsimulations.com. Any competent flight simmer will develop a sense of where their aircraft is in relation to terra firma.

The Debriefing

Contrary to popular opinion, the debrief can be as fundamental a part of the learning process as either the briefing or the flight itself. Some pointers as to why:

- As before, *listen to each other*. Discuss your own failings during the mission you've just flown. Did you go "off objective"? Did you communicate efficiently? Or did you jam up the comms channel with unnecessary chatter when someone else needed it to call a threat? Examine your own failings — there's always something we could have done better — and be careful to listen to any other criticisms of your performance.

- *Provide others with feedback*. Any criticism should always be constructive. Remember that you're part of a team, and that it's only by building your team spirit that your team will reach its maximum efficiency. Destructive criticism will have a negative impact here — others may be unwilling to fly with you in future and your criticism may simply get others' backs up and so start a chain reaction of such criticism. Don't do it. It's not big, it's not clever, and it's no fun flying by yourself.

- This links to the above point, but it's worth reinforcing — every aspect of your time in a multiplayer experience should be undertaken with one purpose in mind: *enjoyment*. And enjoyment comes from, firstly, conducting a successful mission and, secondly, sharing that success with others and forging a common bond with your team. Never forget this — you'll increase your own enjoyment of the experience and hopefully those around you.

Conclusion

Never forget: any computer game (and, really, that's all a flight simulation is) is to be enjoyed. And that's all this article is aimed at - increasing your enjoyment. If any of the points set out here don't work for you — no problem, disregard. Just enjoy yourself — and don't neglect real life.

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