

56th FG

Group Training Documents/Element and flight practice

Overview

This document details the skills required to become an efficient fighter pilot capable of coordinated action against hostile aircraft. The pilot is requested to gain all of the capabilities described herein, and will receive tuition as necessary before joining Squadron and Group combat missions.

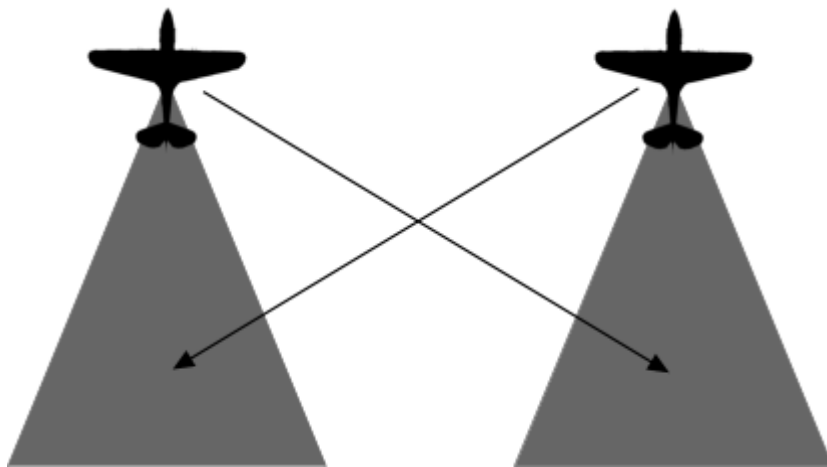
The Element

56th FG specialises in fighting as a team, and the smallest building block of the team is the Element (wing pair). The same tactics and procedures that govern element tactics also govern flight and squadron tactics, so, careful study and immaculate execution of element standards is highly recommended.

The element works fantastically well because it creates security and tactical flexibility that a single fighter simply cannot achieve nor productively combat. And since the bulk of opponents fly on their lonesome, the element has an outstanding advantage in just about any situation, including those where you begin the fight at a positional disadvantage. Once you master element combat you will never again want to fly alone.

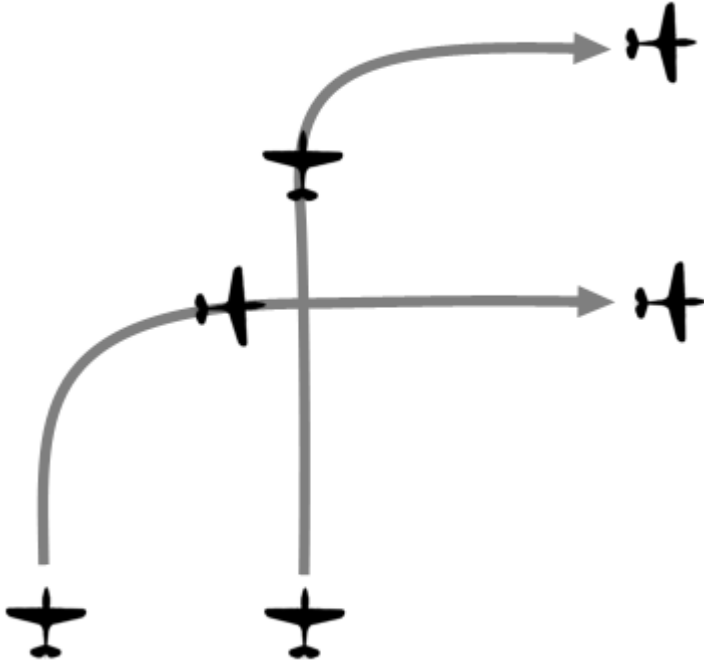
Line abreast

Key to creating visual security and tactical flexibility is to fly in line abreast at all times when you are not actively engaged in combat. The two fighters shall fly beside each other at 200-500 m distance and always be actively scanning toward their partner. In this fashion nothing escapes attention, in particular the vulnerable stern aspect. Maintenance of this formation is essential, for as soon as you slide out of your slot, you kill situational awareness for the team at large. Staying in place and flying a steady and predictable course is made easier by cruising at a reduced throttle setting, typically at Continuous RPM and max throttle (cont/max). If you slide behind the parallel position it is an easy matter to go to max/max and regain the proper slot. If you draw ahead, simply cut back on RPM and/or throttle until your wingman catches up – do not S-turn but work with throttle and slight heading and altitude adjustments instead.



Tactical Turn

The element in line abreast navigates (i.e. turns) by the use of 90-degree tactical turns (tac turns). The drill is to allow the "outside" ship turn first onto the new heading, and as the "inside" ship sees his wingman slide behind his tail, he too initiates the turn. Make your turns deliberate and at a sustained rate, neither too quick nor too slow. E.g. for a right turn, the left fighter turns first across the wake of the right fighter.



In-place Turn

Small course corrections up to 45 degrees are effected as in-place turns, without trading places as in the tac turn. The inside fighter should cut back on throttle somewhat while the outside fighter increases throttle, since the outside fighter has a somewhat longer stretch to cover.

Cross Turn

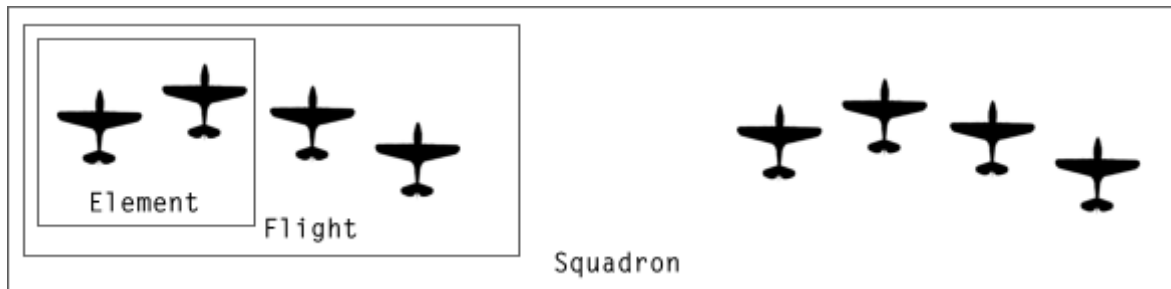
A 180-degree reversal is effected by the fighters simultaneously turning towards each other at a sustained rate, to end up in line abreast in the opposite direction. The cross-turn is employed as a guns defence and general combat manoeuvre against bandits sneaking up from behind at close range and high to moderate closure.

Split Turn

In the split turn the fighters turn 180 degrees away, not towards but away from each other. I.e. the left fighter turns left, the right fighter turns right, until a very wide line abreast formation is attained in the opposite direction. This is employed as a preliminary to the bracket manoeuvre against bandits sneaking up from behind at extended range and low to moderate closure.

The Flight

Navigation in flight strength (4-8 fighters) is similar to element procedure. The difference lies in cross and split turns. In a 4-ship flight, the element turns as a body, trading places within the element as it turns. The same goes for an 8-ship (which is further subdivided in two four-ship sections): the sections turn as bodies, maintaining close formation within the section and separation to the other section as it turns. For tac turns, the 4-ship flight employs the same routine as the element does, one ship at a time until the whole flight recovers line abreast formation.



Element and Flight combat tactics

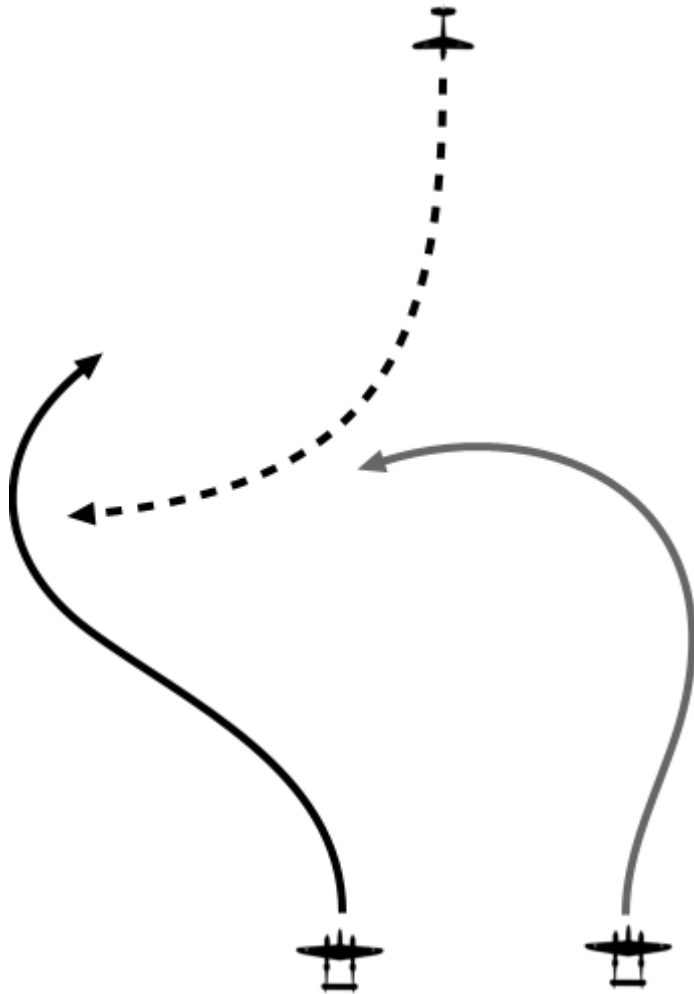
The lateral separation so crucial for visual overwatch is also key to how the element and flight fights. Once combat is joined however in any formation greater than 4, elements should stick closely together. In the flight fight, the elements should act in the same way as individual aircraft act in the element fight. As soon as the combat is concluded or transforms into a chase or disengagement, immediately regain line abreast formation!

Bounce

The element leader always takes the bounce unless he directs the wingman to attack first. If the leader fails to spot the opportunity or is unable to engage, the wingman may take the bounce on his own initiative. During the attack, the wingman should "hang back" several seconds in order to take advantage should the leader miss his attack. Avoid dogfighting! The idea is to work as a team and string the enemy along so that wingman may get solid shots against non-maneuvring targets. If the enemy breaks hard, let him go and reverse only to reengage when the wingman is heading in for his attack. Communicate heavily: "in" and "off" signifies whether you are attacking or extending, "reversing", "dragging W", "he breaks" etc are key clues that govern your action in any instant.

Bracket

When engaging a co-altitude bandit in the forward quarter, the element should always employ bracket tactics. With the bandit approaching head on, the leftmost fighter angles out left while the rightmost fighter angles out right. The bandit must now choose whom to engage, he cannot fight both. The "engaged" fighter must fly so as to pass outside of the bandit, thereby flushing the bandit outward so that the "free" fighter, who turns in at the appropriate moment, gets a money shot from astern or high angle off. If the fight is not immediately concluded, maintain separation and subject the bandit to sequential attacks until he is down and dead.



Split

When pursued by a mass of closing bandits, the element employs the defensive split. The wingman angles out by 45 degrees while the leader continues straight ahead. The enemy must now choose between targets or divide themselves to pursue both. Assuming that the closest bandit goes for the wingman by cutting across his path, the leader turns gently toward the wingman to gain a shot at his pursuer. Once the closest bandit is down or defensive, the element regains line abreast and prepares to receive the next aggressor in a similar fashion. Keep up the speed – do not become stationary against a more numerous enemy. If there are but one or two bandits, employ the cross turn and bracket tactics previously described.

Drag

When dragging for a wingman or squadron member, know that it is always the relief party who calls the shots once the situation has been clarified and contact established. Always drag in straight lines so as to give the relief party unloaded and easy shots. Never drag straight at a friendly party but angle out so as to run at a 45-90 degree relative to the friendly heading. If you are forced to manoeuvre hard, you are beyond effective help.

Cave Tonitrum!

Johan "BMBM" Kylander, Commanding Officer 56th Fighter Group
"This is Yardstick. Follow me."