WW II Aerial Combat
Fast and Easy Rules

by V. Lucchetti and Stefano V.
(All suggestions from Stefano were deleted on first revision …)
Based on the rules of Mic McGoldrick and Bill Molyneaux
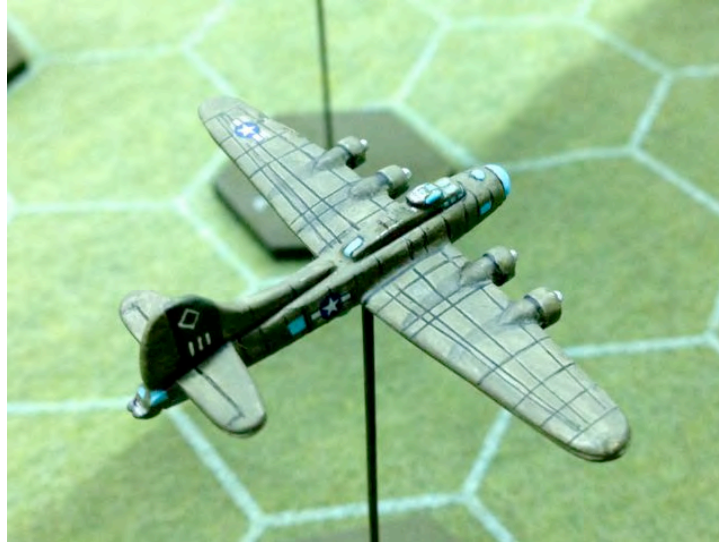
Version 2.0, April 2014

Table of Contents

This page is intentionally left blank.

Introduction

These rules have been thought by the original designers as a set for simple aerial combat between large formations of bombers, escort and interceptors, to be played in a short amount of time.

The rules have been designed to be pleasant and at the same time to give a feeling of what was the air war in World War Two.

Our main focus is on depicting the attacks on big boxes of American heavy bombers but we think that with little adjustments the rules may be played for other periods, like the Battle of England, Battle for Italy, Malta.

The main simplification of the rules has been to disregard the third dimension and depict maneuvers in a very stylized way. Our justification is that regarding the attack to a bomber formation, the combat will happen at the height of the bombers, being all at about same altitude.

On top of the original rules from McGoldrick and Molineux, we have built simplifications, like removing the card activation, all planes occupying a single hex. We think to have added some flavor, like friendly fire from bombers, rockets, and we also think to have fixed little problems generating for example the possibility that interceptor could have attacked the bombers without any possibility from the latter to reply back for essentially the whole duration of the game, fixed only with the active use of the escort.

We had great fun on writing this version of the rules and playing, we hope you also will. Enjoy !

Playtest

These rules have been tested numerous times with large groups of players. They work well and produce a fast and fun game.

The Models

Vittorio and Stefano play with 1/600 models from Tumbling Dice Miniatures.

The Board

The battle will be played on a hex mat.

Deployment

The Player controlling bombers positions his formation on a short side of the table, facing the other short side. His escort will also be positioned around the bomber formation, usually in front or behind.

At this point the players position randomly or the referees choses the position of the interceptor groups. Interceptors shall start at least 8 hexes from enemy planes.

Bomber Formation
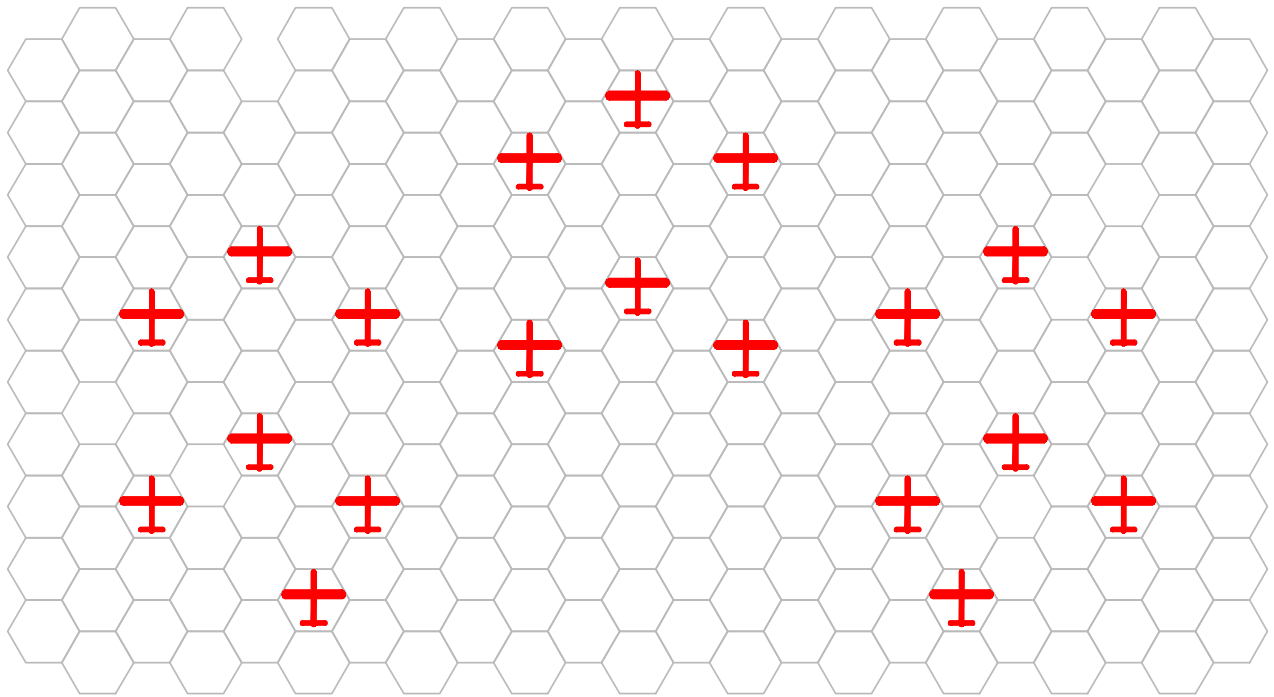
A TYPICAL AMERICAN BOMBER BOX FORMATION OF 20 PLANES, IN GROUPS OF THREE.

Rules

Sequence of Play

To simplify the game we have decided to use the following fixed turn sequence, without cards as in the original rules.

Two categories of plane are defined, bombers, moving in formation and essentially straight throughout the game, and fighters, which are all other planes not moving in formation. Fighters are divided in Escort and Interceptors if they fight respectively on the side of the bombers or against them. Jets are a particular type of fighter, which has few dedicated rules.

1. Escort Planes Move

2. Escort Planes Fire

3. Bombers Move (if any in the scenario)

4. Interceptor Planes Move

5. Interceptor Planes fire

6. Bombers Fire (if any in the scenario)

7. Bombing
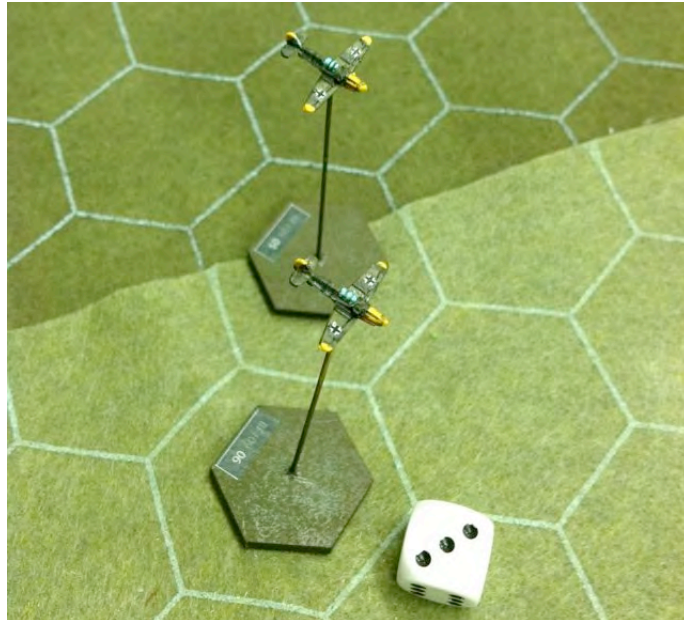
A BF109 WITH HIS WINGMAM FLYING OVER GERMAN HOMELAND

Movement

Each plane has a SPEED rating that indicates the maximum number of hexes the plane can move. Planes must ALWAYS move at SPEED hexes or SPEED-1 (jets also SPEED -2) hexes.

Escort plane may move at the speed of the bombers at the beginning of the scenario, general rules apply when combat starts.

It costs one hex of movement to move forward or slip to the right or left. When a plane slips it doesn't change facing, it slides over and forward (see diagram).

Right & Left Slips   Right & Left Turn
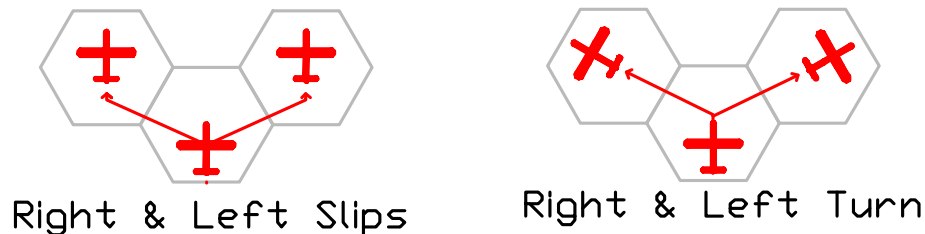
A plane can make as many slips as allowed by his SPEED. When a plane has finished slipping on one side, it must go straight at least one hex before slipping on the other side.

Bomber formation moves straight for the whole game, but single bombers may slips on a side at the beginning or at the end of movement if for any reason a single bombers starts its move out of formation.

A bomber may also increase the speed by one hex to try to keep formation with 5-6 on a D6 roll.

Planes also have a Turn rating which indicates the cost in hexes to move straight before a turn. A turn is performed by changing the plane's facing one hexside to the left or right at no cost and then moving forward at least one hex if any movement is left (see diagram).

If a player is not allowed to turn because he has not done enough straight movements, he may declare that his plane is starting to turn right or left. He will move straight for his remaining move and he will note with a marker how much it moved straight and whether he is going left or right. This number must be used on next move to anticipate the declared turn.

Each plane also has an Immelman rating that indicates the cost in hexes for the plane to execute an Immelman turn (also known as a split S). When performing an Immelman turn the plane moves forward a number of hexes equal to it's Immelman rating then in the last hex it changes facing by 180-degrees and completes its movement straight.

The hexes the plane moves through while performing the Immelman turn can NOT contain any other planes.

Immelman Turn
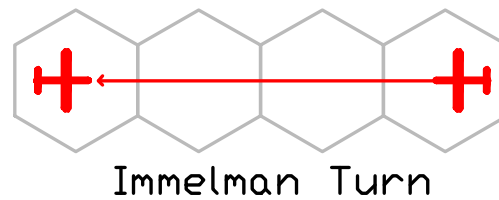
Immelmann is a difficult maneuvre, it fails on 1-2 on a D6 throw. If it fails then the plane must move straight for the remainder of the move.

Each plane can move and maneuver as it wishes as long as the total cost doesn't exceed its speed. Moving planes can fly through hexes that contain other planes but they may not end their move in a hex that contains another plane. There is an exception to this rule.

If a bomber ends its move on an hex occupied by a fighter, the fighter will slip randomly on an empty adjacent hex (See Random Shift figure).

Shooting

Fighter planes may ONLY fire at enemy planes that are in the line of hexes directly in front of their nose, they may not fire off to the sides or at an angle. Fighters can shoot up to 4 hexes.
Fighter planes with a rear gun can only fire the rear gun at enemy planes in the line of hexes directly behind them and are limited to a range of 3 hexes.
Planes block line of sight, so you can't shoot through friendly planes.
The Gun rating indicates the number of dice to roll when shooting. The Shooting table shows the die roll needed to score a hit. Hits must be recorded on the target plane. This can be done by putting small markers on the base or wings or you can keep a written record. When the number of hits on a plane equals its Damage rating it is removed from play, its fate will be known at the end of the game. Damage to a plane does not affect the plane's ability to move or shoot (heavy bombers are an exception).

**EXAMPLE OF DAMAGE MARKERS FOR ALLIED AND AXIS PLANES**

SHOOTING TABLE: 1D6

Range	1	2	3	4	Hexes
Fighter	3-6 (4-6*)	4-6	5-6	6	(*vs Jet)
Rear guns	4-6	5-6	6	-	
Bomber guns	3-6 (4-6*)	4-6	6**	-	(*vs Jet) **Only one turret

Gun rating from Fighter and Bomber Tables is number of dice to roll on this table.

Bombers and rear guns shoot only up to 3 hexes.

Wingman on adjacent hex, little behind on left or right flank   +1 dice
Ace   +1 dice
Frontal fire   - 1 dice
Tailing fire (Optional, only when Stefano referees the game)   +1 dice (fighters only)

Record all sixes thrown, since they will cause critical hits and engine hit checks on bombers.
When firing at maximum range, requiring 6 to hit, no critical hits are done (optional rule: two sixes are required in this last case to cause a critical hit), engine hit checks on bombers are done as usual on all sixes.

Tailing Fire   Frontal Fire
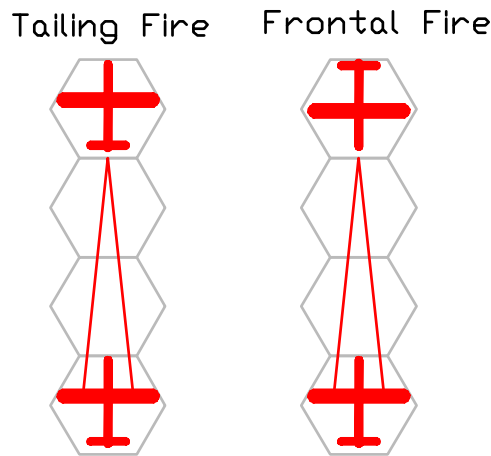
Penalty of -1 dice on Frontal fire applies to fighters and for each turret of bombers firing head-to-head on fighters.
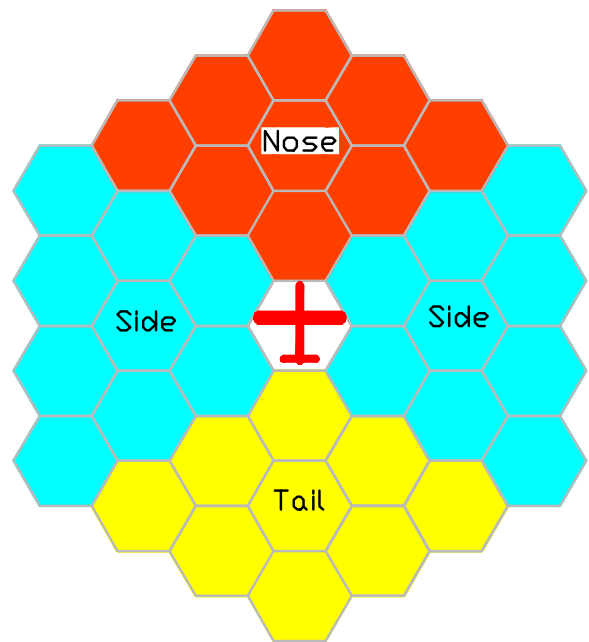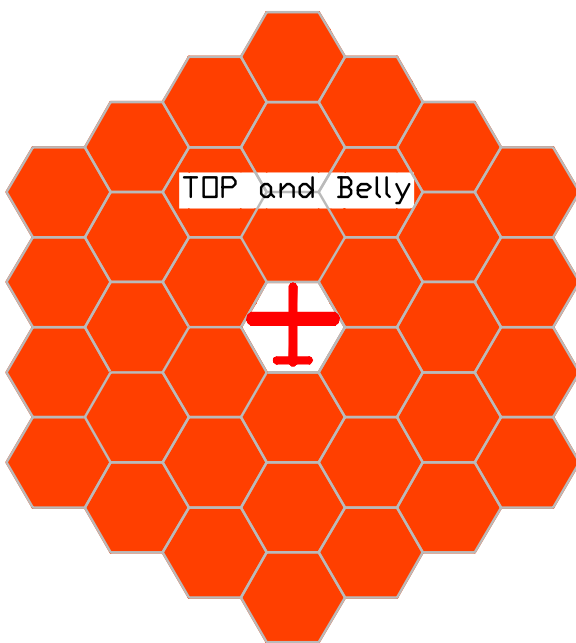
EXAMPLE OF HEAVY TAILING FIRE AND DAMAGE.

Bomber Firing Arcs

Bombers have different firing arcs and their guns are limited to a range of 3 hexes. The diagram shows where each bomber turret can fire.

A bomber may acquire a maximum of two targets and cannot fire both top and belly turrets at the same fighter.

PICTURE OF AN ALLIED HEAVY BOMBER BOX

Friendly Fire

A bomber will fire to a friendly escort a single generic turret (2D6 guns), depending on distance, if on a D6 roll he rolls:

1-3   if friendly fighter is at a distance of 1 hex
1-2   if friendly fighter is at a distance of 2 hexes
1   if friendly fighter is at a distance of 3 hexes

Rockets

Some german planes had rockets to disrupt bomber formations. Planes may be equipped with two or four salvos. Each salvo is solved by a throw of 1D6, player chooses how many salvos to fire in a turn. Range is 3-8 hexes. The hit probability is 4-6 and the damage assessment is done looking at the Table appearing in the Critical Hits chapter. A six causes also an engine check and critical hit as usual.

Hits on multi-engine planes

When a fighter scores a hit on a multi-engine plane with a roll of 6, there is a chance that an engine was hit.
Roll again for each 6 that was rolled to hit the plane. If the second roll is a 4 - 6 then an engine was destroyed. Engine hits can be marked by putting cotton on the plane.
Each engine hit after the first one reduces the speed of the bomber by 1 hex in the case of four or three engine bombers. Bombers with two engines reduce their speed by one when their first engine is hit.
If a bomber is reduced to speed 0 then it rolls 1 die each turn and it can move 1 hex on a roll of 4 - 6.
If a bomber loses all of its engines it is shot down.
This die rolls are additional to the critical hit chances that occur when sixes are thrown.

EXAMPLES OF ENGINE HIT MARKERS

GERMAN HIGH TECHNOLOGY LOOKING FOR ENEMY BOMBERS. JETS HAVE SPECIAL RULES WHEN BEING TARGETE

Critical Hits

If any sixes are thrown when firing, then consult to critical table below after throwing 2D6. An airplane could just go down in flames with a single shot!

Remember to throw 2D6 only once per plane, independently from the number of sixes rolled.

The same table will be consulted when rockets hit, or if subsequent to a shift, two bombers end in adjacent hexes. In a sort of chain reaction, one rocket might cause the shift and collision check of multiple bombers in the same move.

CRITICAL HIT TABLE: 2D6

2D6 Dice	2	3	4	5	6	7	8	9	10	11	12
Target is Fighter	H									H	H
Target is Bomber										H	H
Target is Jets	H								H	H	H
Rocket Fire	S2	S1	S1	*3*	*2*	*1*	*2*	S1	S1	S2	S2
Bomber Collision (each plane)	H	S1	*3*	*2*				*2*	S1	S1	H

H = Plane Out of the Game due to damage, mechanical failure or just morale, check its fate at the end of the game.
S1 = one plane shifts one Hex (next move, see template).
S2 = two planes shift one Hex.
3-4… = Number of hits taken.

Dice Modifiers

30mm Cannon   +1
Receiving Frontal fire   +1 (applies to fighters and bombers, due to hits on cabin or motor!)
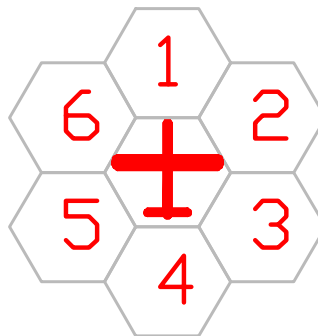
Plane Hex Shift

S1 = The airplane hit will shift one hex at random, se diagram below.
S2 = As above, but also nearest bomber (if more than one, just throw dice to decide which) will shift one hex.
Note: the shift occurs at the end of the next bomber move.

Random Shift

Bomber Collision

Bombers end their move adjacent to each other, throw against the critical table for collision.
Result resolved immediately. As in a chain reaction, all other planes will throw for collision if adjacent.
Shift is prohibited on an occupied hex, nothing happens in that case, but planes will throw again next move if they will be still adjacent.

Bombing

If a bomber has moved onto a hex containing a target it gets a chance to destroy the target with bombs.
The bomber rolls 1 die. If the roll is equal to the hit numbers in the plane's Bomb rating then the target is destroyed.

Fighter Bombers

If a fighter is used in bombing missions, it will be penalized with the following rules until after release of all ordnance, either on target or to regain maneuverability in a dogfight.

- Speed   -1
- Turn   +1
- No Immelmann

What to do at the End of the game

Throw 1D6 for each plane hit and out of the game, consult table. There are the real losses of the battle!

CASUALTY TABLE 1D6

Dice	1	2	3	4	5	6
Fighter	C	C	D	D	L	L
Bomber	C	C	C	D	D	D
1/3 or 2/4 Engines Hit	D	D	L	L	L	L
3/4 or 1/2 or 2/3 Engines Hit	C	C	D	D	D	L
All Engines Hit	C	C	C	C	C	C

C = Plane crash
D = Plane damaged
L = Light damage, will return to combat right after the game end.

Die modifiers

If plane sustained a Critical Hit   +1
If planes are Far from Home   +1

Fighters table

	Guns	Speed	Turn	Immelm.	Hit points	Notes
ME 109 E	3	5	2	2	5	
ME 109 G	4	5	3	3	6	may carry 2 rockets salvos
ME 109 K	4	5	3	4	7	30 mm Cannon, may carry 2 rockets salvo
FW 190 A	4	5	3	3	7	may carry 2 rockets salvos
FW 190 D	4	6	4	4	7	30 mm Cannon, may carry 2 rockets salvo
ME 110	3/1	4	3	4	8	
ME 110 G	4/1	4	3	4	8	30 mm Cannon, may carry 4 rockets salvo
ME 410	4/1	5	4	5	9	may carry 2 rockets salvos
ME 262	5	9	5	6	7	JET - 30 mm Cannon
ME 163 Komet	5	10	8	8	6	JET - 30 mm Cannon, Immelman fails on 1- -1 to be hit (small target)
Arado 234	-	8	6	7	12	JET
JU87 Stukas	2/1	3	3	-	5	
P40	3	4	3	4	5	
P38 Lightning	4	6	4	5	8	
P47 Thunderbolt	4	6	4	4	8	
P51 Mustang	4	5	3	2	7	
P80	4	8	5	6	7	JET
Hurricane	4	4	3	3	5	
Spitfire I	4	4	2	2	5	
Spitfire IX	5	5	3	3	6	
Typhoon	4	5	4	4	7	
Tempest	5	6	4	3	7	
Meteor	4	8	5	6	7	JET
Macchi 200	3	4	2	3	5	
Macchi 202	3	5	3	2	5	
G55	4	5	3	3	6	

	Guns	Speed	Turn	Immelm.	Hit points	Notes
Dewotine 510	3	4	3	3	5	

WE FAVOUR THE USE OF LITTLE DICE OF COLOURED PIPE CLEANERS TO INDICATE THE STATE OF THE PLANE. GENERIC HITS, ENGINE HITS, TURNING FROM LAST MOVE RIGHT OR LEFT, ROCKETS TO BE FIRED, ARE ALL EXAMPLES OF PLANE STATUS THAT MAY DEPICTED EASILY ON THE TABLE.

Bombers table

	Guns					Speed	Turn	Hit Points	Bombs	Notes
	Nose	Top	Belly	Side	Tail					
B17 E	2	2	2	1	2	2	2	22	3-6	
B17 G	3	2	2	1	3	3	3	22	3-6	
B24 D	1	2	2	1	2	3	3	20	3-6	
B24 J	2	2	2	1	3	3	3	20	3-6	
B25	2	2	-	1	2	3	3	14	4-6	
Lancaster	2	2	-	-	3	3	3	18	3-6	
JU88	2	1	-	-	1	3	3	12	4-6	
HE111	2	1	-	1	1	3	3	14	4-6	
DO17	2	1	-	-	1	3	3	11	4-6	

Comments

This is a space for further ideas that might be added to these rules.
We are currently working on a number of items…

Here is the list:
- Effects of clouds on movement and combat;
- Night fighting;
- Special rules like empty fuel tanks of german jets during combat.

Campaign rules need to be introduced in games, like:
- American planes jettisoning fuel tanks in dogfights, unable to further escort bombers.