

SPITTING FIRE

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INTRODUCTION

SPITTING FIRE is a pseudo-historical game of aerial combat, set during the turbulent years of World War II.

Between 1939 and 1945, nearly the entire globe became embroiled in the most expansive and destructive conflict ever seen. Although responsible for unimaginable terror and tragedy, the war also gave birth to innovation and invention on an unprecedented scale.

With **SPITTING FIRE**, players can take control of the aircraft forged in this crucible of conflict, and battle each other in skies the world over!

We should state at the outset that those who are aching for a historically-accurate, painstakingly-researched, richly-detailed simulation of World War II dogfights

should probably look elsewhere. While such games can be exciting, they aren't what we had in mind. However, if you want a fast-playing, fun game that gives a nod to history without getting bogged down in historical minutiae, then **SPITTING FIRE** is for you.

GAME COMPONENTS

In order to play **SPITTING FIRE**, you will need to have the following items on hand:

Rulebook

Obviously, you need a copy of the rules. However, if you're reading this, you've already got that part covered.

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Aircraft Disks

Each aircraft is represented in the game by a metal disk, available separately from Majestic Twelve Games (www.mj12games.com):

The various parts of the disk (aside from the aircraft image) are:





1. Front arc
2. Mid-line
3. Rear arc
4. Nationality icon
5. Squadron ID
6. Background (Red = Axis; Blue = Allies; Gold=Neutrals, including France)

SPITTING FIRE can also be played with metal or plastic models. Many different manufacturers produce metal miniatures in 1/285 or 1/300 scale, and there are several varieties of 1/144 and 1/100 scale plastic model kits on the market. Other common scales are 1/87, 1/72, and 1/48, although these are likely to be too big for use in this game (unless you are playing on the living room floor!). At the other extreme, there are 1/700 models, intended for use with ship models of the same scale.

For obvious reasons, the scale of all playing pieces in a given game should be the same, although 1/285 or 1/300 miniatures can be mixed with the metal disks.

Aircraft Data Cards

In addition to the disk used to represent it on the playing surface, each aircraft has a data card associated with it. This card contains all of the information necessary to fight with the plane in SPITTING FIRE.

SPITFIRE		35			
	<i>Supermarine Spitfire Mk.IX</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
	4+	<input type="checkbox"/>			
MIN	CLIMB	LEVEL	DIVE	TURN	ALT
5	8	12	18	4	8
WEAPON		ARCS		DAMAGE	
20mm LMG		2FF 4FF		3 1	

Playing Area & Scale

SPITTING FIRE is played on an open tabletop; unlike traditional board games, there are no “spaces” along which the playing pieces are moved. Instead, distances are determined by using a ruler or tape measure. The actual location of an aircraft is represented by the center of its playing piece—when measuring distances, be sure to always do so from the middle of the disk or the “stem” of the model’s stand.

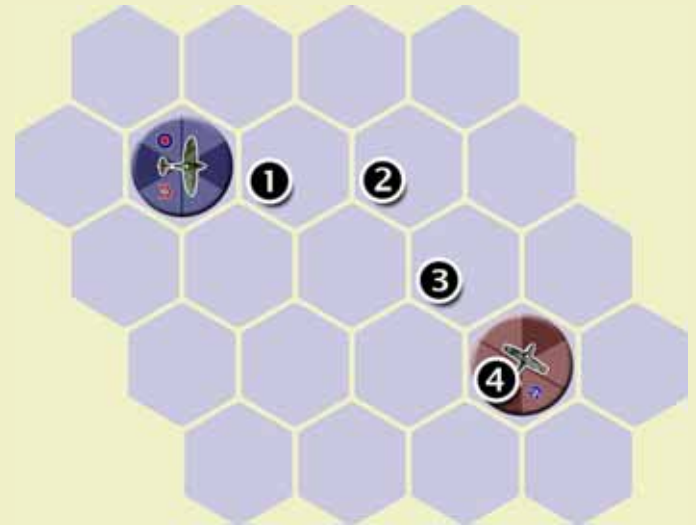
All distances in the game are given in standard units (SUs), which are denoted by an apostrophe ('). For example, 5' would mean 5 SUs, not 5 feet! The actual length of an SU depends upon the type of playing pieces being used:

PLAYING PIECES	SU LENGTH
1/700 models	1 centimeter
Disks	1 inch
1/285 or 1/300 minis	1 inch
1/100 or 1/144 models	2 inches
1/72 or 1/87 models	3 inches
1/48 models	4 inches

The game “board” should be a rectangular area of at least 24' by 36'. Thus, if using the metal disks, the minimum playing surface would be 2 ft. x 3 ft., while a game using 1/48 models would need an area of at least 8 ft. x 12 ft.

Finally, the game can also be played using hexes, instead of an open tabletop; obviously, 1' would equal one hex.

On a hexgrid, distances are determined by counting the number of hexes along the shortest path between two objects, as shown below—the *Würger* is 4 hexes (and thus 4 SUs) away from the Spitfire:



As this is a game of aerial combat, the terrain over which the battle is being fought is irrelevant. However, since a major aspect of miniature wargaming is aesthetic, you may wish to decorate your battlefield with trees, hedges, buildings, etc.

For those interested in such things, the “ground” scale of SPITTING FIRE is 1' = 1000 feet; each level of altitude represents a height of one mile; and the time scale is one turn = 20 seconds of “real” time.

Markers

There are two different types of markers used in SPITTING FIRE, included on the center pages of this book. Once removed, each page should be folded as indicated, and the two halves glued together. The markers

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may then be carefully cut out using a hobby knife or pair of scissors. (For more durability, you may want to glue a piece of cardboard or cardstock between the two halves before cutting out the markers.)

- **ALTITUDE MARKERS** are used to indicate the altitude level at which a particular flight group is currently operating.



Altitude markers are double-sided; however, only the number showing when the marker is placed on the game board is relevant.

- **MANEUVER MARKERS** are placed during the plotting phase, and revealed as each flight group is activated.



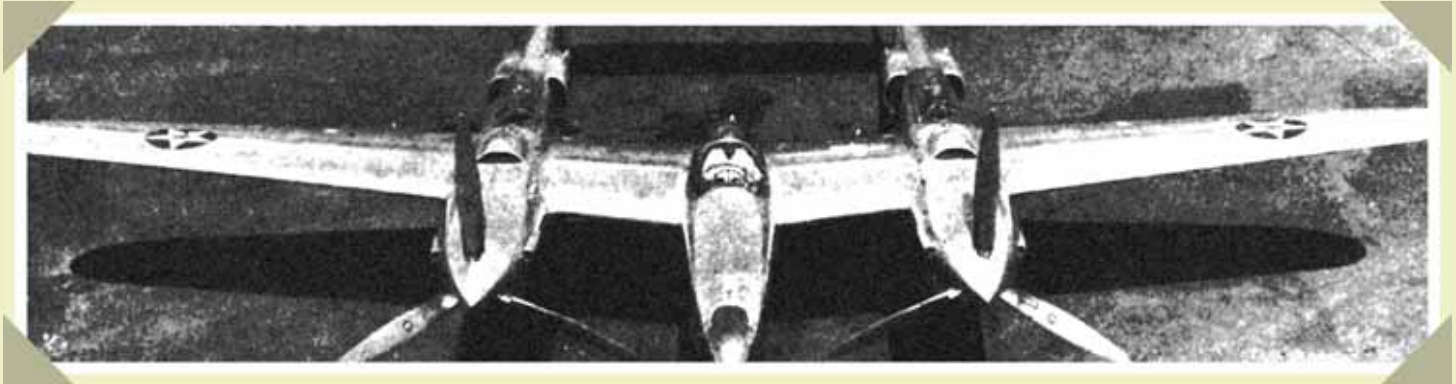
A maneuver marker contains two icons: the first is either a plus, minus, or equal sign and denotes the altitude change (if any) to be completed by the group; the second is an arrow which is either straight or curved to the left or right, and dictates the initial move required of aircraft in the group.

Maneuver markers have the SPITTING FIRE logo on the reverse; when used, each marker is placed on the table face-down, with this logo showing.





Other Items

- **RULER OR TAPE MEASURE:** As noted above, at least one ruler or tape measure will be required in order to determine distances for movement and combat.
- **PLAYING CARDS:** Playing cards are used to determine the order in which aircraft move and attack. This can be any deck that has both red and black cards in it; the values of the cards do not matter. Thus, a pinochle deck would work just as well as a poker deck.
- **DICE:** All dice used in this game are six-sided, just like those provided with most family board games. You should have at least six on hand, although more would be better.
- **PEN/PENCIL:** At least one pen, pencil, or other writing utensil is required in order to mark damage on the aircraft data cards.



AIRCRAFT

In this section, we will discuss the different parts of the aircraft data card, as well as explain how the planes will be organized under your command.

	1 SPITFIRE		37
	<i>Supermarine Spitfire Mk.</i>		3
	4	5 4+	6 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
MIN	7	CLIMB	LEVEL
5	7	8	12
			DIVE
			18
			TURN
			4
			ALT
			8
WEAPON		ARCS	
20mm		2FF	
LMG		4FF	
	10		DAMAGE
			3
			1

THE AIRCRAFT DATA CARD

The information presented on each data card is as follows:

1. Aircraft name
2. Aircraft type
3. Point value
4. Squadron ID box
5. Defensive rating
6. Damage boxes
7. Movement rates
8. Turn rating

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9. Maximum altitude level

10. Weapons listing

Aircraft Name

The aircraft name is either that given to the design by the manufacturer or military (Mustang), or an unofficial nickname given by troops in the field (*Ostronosy*).

For those Japanese aircraft without official names, we use American code designations; however, planes that were given Japanese names are referred to by those. Thus, the Nakajima Ki-27 is “Nate”, while the Mitsubishi A6M is *Reisen*, and not “Zeke”.

In the case of aircraft that had neither an official designation nor a common nickname, the name used is the base model number (e.g., Bf 109*).

Aircraft Type

As opposed to the name, the aircraft type indicates the manufacturer and specific model of the plane.

* Yes, we know that the 109 did have nicknames, but these shifted with the variant; e.g., the Bf 109B was Bertha, while the 109E was Emil. In addition, aside from the 109G (Gustav), which was also known as *Beule* (“Bulge”), these nicknames were merely taken from the German phonetic alphabet, in the same way that 5th company, 506th Parachute Infantry Regiment, U.S. 101st Airborne Division, is referred to as “Easy” Company.

Point Value

Each aircraft has a point value which is used to balance out the sides in a game of **SPITTING FIRE** so that each has a roughly even chance of victory.

Squadron ID Box

Each data card has a box left empty for players to write in the squadron ID or other information linking the card to a specific disk or miniature on the game board, as well as identify the flight group to which the aircraft belongs.

Defensive Rating

The defensive rating determines how easy it is for opponents to cause damage to the aircraft with their weapons. The value listed is the number that must be equaled or exceeded on a die in order for a weapon “hit” to score damage (see p.25 for details). For example, a plane with a defensive rating of “5+” would be damaged on a roll of 5 or 6.

Damage Boxes

Each point of damage taken by an aircraft requires you to mark off one of the boxes on the plane’s data card; when all have been marked off, the plane has been shot down.

Movement Rates

Each aircraft has four different movement rates:

- **MINIMUM:** This is the minimum number of movement points (MPs) the plane must spend each turn in order to remain in flight.
- **CLIMB:** This is the maximum number of MPs the plane may spend when climbing.
- **LEVEL:** This is the maximum number of MPs the plane may spend when flying at a level altitude.
- **DIVE:** This is the maximum number of MPs the plane may spend when diving.

Turn Rating

An aircraft's turn rating is used for two purposes: (1) it indicates the minimum distance (in SUs) the plane must move forward before it can make a turn, and (2) it governs how difficult it is for the plane to make a tight turn or half-loop (see p.20).

Maximum Altitude

The aircraft's maximum altitude simply determines the highest altitude level at which the plane may operate. For example, a plane with a maximum altitude of 7 may not ascend to altitude level 8 or higher.

Weapons

The final section of the data card lists the aircraft's weaponry. Each is defined by four values:

- **WEAPON TYPE:** There are five basic types of weapon in SPITTING FIRE: light machine guns (7.7mm or 0.303"), heavy machine guns (12.7mm

or 0.5"), 20mm cannons, 30mm cannons, and 40mm cannons.

- **FIRING ARCS:** Each weapon can fire into a specific arc, depending upon its placement on the aircraft's fuselage.
- **DAMAGE:** The damage value of a weapon determines how many hits are inflicted on a target. Thus, a 20mm cannon (damage value 3) can inflict up to 3 hits on its target.

The five basic weapon types are summarized below:

WEAPON	DAMAGE
Light Machine Gun (LMG)	1
Heavy Machine Gun (HMG)	2
20mm Cannon	3
30mm Cannon	4
40mm Cannon	5

FLIGHT GROUPS

Aircraft in SPITTING FIRE do not act alone; each is part of a *flight group*.

Group Organization

A flight group must consist of at least two and no more than four aircraft, all of which must be of the same type. Thus, three Spitfires, two Mustangs, or four *Hor-nissen* are all valid flight groups, while two *Hayabusa* and a *Reisen* could not be combined into a flight group, nor could five *Falchi*.

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An exception exists if your force contains only one of a given aircraft type; in such a case, that plane will operate as a flight group unto itself.

Group Coherency

Unlike many other miniatures games, the aircraft which make up a flight group in **SPITTING FIRE** are not required to maintain any formation or keep within a specific distance; it is quite common for individual planes to veer off in pursuit of targets and end up a significant distance from their compatriots.

However, two considerations inherent in the rules will mean that it is important for players to keep their flight groups in relatively close proximity:

- (1) During the plotting phase, each flight group receives one (and only one) maneuver marker which limits how the planes in that group can maneuver in the upcoming action phase; and
- (2) Each flight group has one (and only one) altitude marker at any given time, meaning that the planes in the group must always be at the same altitude level.

Because of these limitations, flight groups that stick together are likely to be much more effective than those that disperse themselves across the game board.



SETTING UP

CHOOSING YOUR FORCES

The first step for you and your opponent is to select the specific aircraft that will do the fighting.

Ax i s vs. A l l i e s

As noted earlier, there are seven nations represented in the initial release of *SPITTING FIRE*. The United States, Great Britain, and the Soviet Union are collectively known as the *Allies*, while Germany, Japan, and Italy are the *Axis*.

When choosing forces, each side should take the role of either the Axis or the Allies, and then select aircraft belonging to the appropriate nations. While there are no historical examples of Japanese planes flying with Germans or Italians, and Soviet planes rarely fought

alongside British or Americans (although they often flew American-made aircraft), for our purposes it is permissible to include any or all of the three nations among your chosen Axis or Allied force.

France is a special case. At the beginning of the war, the French were part of the Allies; however, after the fall of Paris in 1940, a new government was set up in Vichy. While Vichy France was officially neutral, there were instances of French forces fighting against the Allies. Furthermore, Germany occupied Vichy France in 1942, effectively completing the transition to Nazi puppet state.

Meanwhile, the “Free French” forces based in London fought against both German and Vichy forces until France’s liberation in 1944.

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The existence of the two Frances means that in SPITTING FIRE, French aircraft may be included on either the Axis or Allied side (or even on both at the same time!).



Point Total

In addition to divvying up the two factions (Axis and Allies), players must also choose a point total—typically, this is a multiple of 500; e.g., 500, 1000, 2000, etc.

When selecting aircraft to make up your force, the total point cost of all planes should come as close to this total as possible without going over.

Jim and Noel are going to play a game of SPITTING FIRE, and have set the size of the battle at 500 points. Jim has decided to be the Axis, and chooses the following aircraft:

<i>2x Hornisse</i>	<i>53 points each</i>	<i>106 points</i>
<i>4x Würger</i>	<i>42 points each</i>	<i>168 points</i>
<i>8x Bf 109</i>	<i>27 points each</i>	<i>216 points</i>
	<i>Total</i>	<i>490 points</i>

As the total point value for these planes is below the 500-point limit, and it would be impossible to add any other planes with the remaining 10 points, Jim has successfully chosen his force. (Yaay, Jim!)

Flight Groups

Once you've selected your aircraft, they must be arranged into flight groups, keeping in mind the restrictions on p.9.


Looking at his force, Jim decides to arrange the Hornissen and Würger into single flight groups each, while the 109s will be divided into four groups of two planes each. This results in a total of six flight groups.

Data Cards

As mentioned earlier, you will need to have a data card filled out for each aircraft in your force. This can be done in several ways:

- (1) The aircraft disks available from Majestic Twelve Games (www.mj_12games.com) include laminated data cards that can be written on with a grease pencil or dry erase marker.

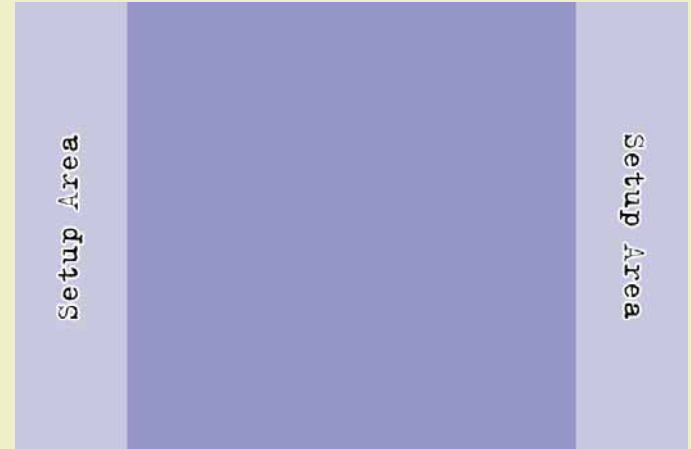
- (2) You may photocopy the pre-generated data cards starting on p.30 of this rulebook. This may not be very efficient for large games, as you will need a separate sheet of paper for each plane.
- (3) You may photocopy the sheet of blank data cards from the back of this book, and fill out the information yourself (an example is shown below). As there are four cards on the page, you will only need a single sheet for each flight group under your command.

		Spitfire		35		
		Supermarine Spitfire Mk.IX				
Brit Red-2		DEF	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
		4+				
MIN	CLIMB	LEVEL	DIVE	TURN	ALT	
5	8	12	18	4	8	
WEAPON		ARCS		DAMAGE		
20mm LMG		2FF 4FF		3 1		

ARRANGING THE BATTLEFIELD

The next step is for players to determine where the game will be played. In many cases, the dimensions of the game board will be fairly obvious—the edge of a table provides a very dramatic boundary. However, if playing on a floor or other large, open space, make sure that all players are aware of what is “in play” and what is “out of bounds”.

As mentioned on p.5, the playing area should be at least 24' x 36'. A 6'-deep space along either short edge is designated as a “setup area”.



In the typical SPITTING FIRE game, the battlefield will represent nothing but open sky. However, as suggested earlier, you may wish to add some terrain features to the playing area for aesthetic purposes. Since none of these features will affect actual game play, it is irrelevant how this is done.

Placing Aircraft

Finally, the selected aircraft are placed in their starting positions on the game board. First, determine which setup area belongs to which player, via any appropriate method (rock-paper-scissors, anyone?).

Next, take a number of playing cards from the deck, shuffle them, and place them face-down next to the

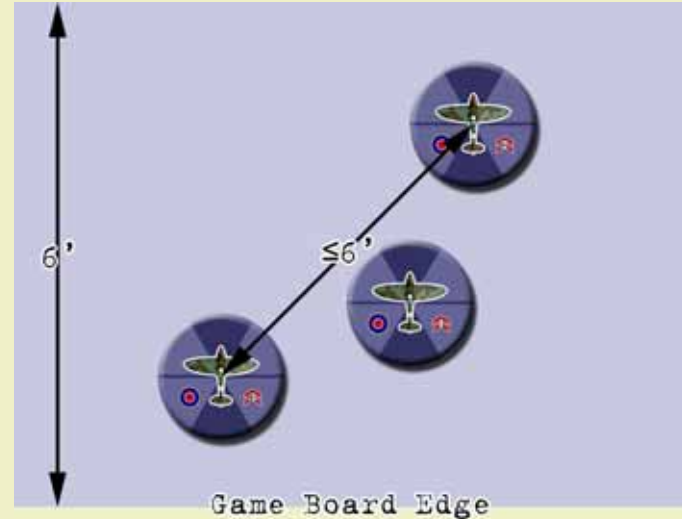
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playing area. The number and distribution of cards placed in this pile is equal to the number of flight groups on each side. For example, if there are four Axis flight groups and five Allied flight groups, a total of nine cards would be shuffled together, four red and five black. (As you may have guessed, the Axis is represented by red cards, while the black cards are for the Allies.)

Then flip the top card in the pile. The color of this card determines which side places one of its flight groups on the game board. The specific group to be placed is selected by the acting player.

When placed, each aircraft of the selected flight group must be within the appropriate setup area, and they must be arranged so that the two furthest-apart planes are no more than 6' from each other, as shown below.

Players should note that, as indicated on p.21, aircraft may not leave the game board—any that do are lost and considered destroyed. Keep this in mind when placing your groups on the board; starting too close to either edge may limit your tactical flexibility during the initial turns.



Finally, place an altitude marker for the selected flight group. The minimum starting altitude is 2; the maximum is one less than the aircraft's maximum altitude. Thus, a *Zerstörer* flight group could start at any altitude between 2 and 5.

Continue in this manner until all of the flight groups have been placed on the game board. To conclude setup, reshuffle the cards used for placement order; these now become the "activation deck" (see p.16).



PLAYING THE GAME

SEQUENCE OF PLAY

SPITTING FIRE is played in a series of turns, each of which is divided into three phases. These phases help turn the chaos of battle into manageable fun for all.

Plotting Phase

During the plotting phase, players select one of nine different types of maneuver marker for each of their flight groups. These markers are then placed face-down on the table, next to the flight group to which they apply.

The nine types of maneuver marker are:

- **LEVEL RIGHT:** The aircraft in the flight group will remain at the same altitude level and begin their activation with a turn to the right.
- **STRAIGHT LEVEL:** The aircraft in the flight group will remain at the same altitude level and begin their activation with forward movement.
- **LEVEL LEFT:** The aircraft in the flight group will remain at the same altitude level and begin their activation with a turn to the left.



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- **CLIMB RIGHT:** The aircraft in the flight group will ascend one altitude level and begin their activation with a turn to the right.
- **STRAIGHT CLIMB:** The aircraft in the flight group will ascend one altitude level and begin their activation with forward movement.
- **CLIMB LEFT:** The aircraft in the flight group will ascend one altitude level and begin their activation with a turn to the left.



- **DIVE RIGHT:** The aircraft in the flight group will descend one altitude level and begin their activation with a turn to the right.
- **STRAIGHT DIVE:** The aircraft in the flight group will descend one altitude level and begin their activation with forward movement.
- **DIVE LEFT:** The aircraft in the flight group will descend one altitude level and begin their activation with a turn to the left.



Maneuver markers remain secret until they are revealed during the action phase.

Action Phase

To begin the action phase, the first card in the activation deck is flipped over. The color of this card determines which side is given the opportunity to activate a flight group. The specific group to be activated is then selected by the acting player.

Upon activation, the following actions are performed for the selected flight group:

- (1) The group's maneuver marker is revealed.
- (2) The altitude marker for the group is replaced, if necessary, with the group's new altitude level. For example, if a group at level 5 executes a "Climb" maneuver, the "5" altitude marker would be replaced by a "6".
- (3) Each aircraft in the group is moved and then attacks with any or all of its weapons. A plane is not required to attack; however, it must expend a number of MPs at least equal to its minimum movement rate.

Each aircraft in a flight group is activated in sequence; i.e., the first plane moves and then completes any attacks before the second is moved, and so on.

- (4) After all aircraft in the group have acted, the group's maneuver marker is removed from the game board.

Players may not "pass" an opportunity to activate a flight group; if their color of card is flipped, they must activate one of their groups. Each group may only be activated once per turn.

Upon completion of the actions listed above, the next card in the activation deck is flipped. If no cards remain, the action phase is over.

End Phase

During the end phase of each turn, the only required activity is to reshuffle the activation deck. Otherwise,

the phase serves to mark the end of the turn. This is a good time to tidy up any clutter that may have appeared on the battlefield, shift altitude markers so they can be more clearly identified with their flight groups, take a break for more chips and dip, etc.

VICTORY!

A game of **SPITTING FIRE** is played for ten complete turns. At the end of this time, the side with the most victory points (VPs) is the winner. (Of course, a game may end earlier if all aircraft on one side have been shot down...)

Victory points are scored by destroying enemy aircraft. Each plane awards a number of VPs equal to its point value; e.g., the Spitfire is worth 35 points, and therefore awards 35 VPs to the opponent when shot down.

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MOVEMENT

THE MANEUVER MARKER

Upon a flight group's activation, the first thing to do is flip over its activation marker. The marker's identity limits what the aircraft in the chosen group can do during their current activation.

Altitude Change

Each maneuver marker contains an altitude icon: climb (+), level (=), or dive (-). At the time the flight group is activated, the group's altitude marker is replaced, if necessary.

If it is discovered at this time that a flight group at altitude level 1 has executed a "Dive" maneuver, then the aircraft in that group have crashed into the ground and are immediately removed from the game. Likewise, if

a group that is already at its highest-allowable altitude level executes a "Climb" order, the planes in that group have stalled and are immediately removed from the game.

Note that any change in altitude takes effect for each aircraft in the activated flight group at the conclusion of its movement, not at the start of the group's activation. This is important for combat purposes (see p.23).

Heading Change

In addition to an altitude icon, each maneuver marker also has an arrow, which is either straight, curved to the left, or curved to the right.

- If a flight group's maneuver marker contains a straight arrow, then each aircraft must move forward a number of SUs equal to at least TWICE its

turn rating before it can make a turn, tight turn, or half loop.

- If a flight group's maneuver marker contains an arrow curved to the left, then each aircraft must attempt a left turn, left tight turn, or half-loop BEFORE it has moved forward a number of SUs equal to twice its turn rating.
- If a flight group's maneuver marker contains an arrow curved to the right, then each aircraft must attempt a right turn, right tight turn, or half-loop BEFORE it has moved forward a number of SUs equal to twice its turn rating.

Jim activates a group of Bf 109s. He reveals its maneuver marker, which is "Climb Left". The 109s' turn rating is 4; therefore, each aircraft in the group is required to attempt a left turn, left tight turn, or half-loop BEFORE it has moved 8'. Had the marker been "Straight Climb", the planes would not have been able to attempt a turn of any kind until AFTER they had moved at least 8'.

MOVEMENT POINTS

Movement in SPITTING FIRE is governed by the concept of movement points (MPs). Each MP translates to 1' of travel across the game board; thus, an aircraft that moves forward 5' would have spent 5 MPs.

No aircraft may spend more MPs than it currently has available. A plane does not have to spend all of its MPs, but any unused are lost; i.e., MPs cannot be "saved" from turn to turn.

Aircraft may only move straight ahead; i.e., the direction in which its disk (or miniature) is pointing. This facing may be changed by completing a turn (see below).

Note that each aircraft in a flight group may move differently, subject to the limitations imposed by the group's maneuver marker. In other words, the planes do not have to follow the same flight path. However, as stated on p.10, they must remain at the same altitude.

Movement Rates

The number of MPs an aircraft has to spend in a given turn depends upon its movement rate: climbing, level, or diving. This is determined by the maneuver marker selected for the plane's flight group. For example, a Spitfire has movement rates of climb 8, level 12, and dive 18. If its flight group is given a "Climb" maneuver marker, the Spitfire would have 8 MPs to use during the turn.

The fourth movement rate is the minimum move, and it is independent of the maneuver marker. The minimum move simply indicates the fewest number of MPs the aircraft is allowed to spend in a single turn. For example, the Spitfire has a minimum move rate of 5, and therefore must spend at least 5 MPs each turn.

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TURN RATING

In addition to its movement rates, each aircraft's movement is governed by its turn rating. This rating indicates the number of MPs the plane must expend in forward movement before it can make a turn. For example, the Spitfire's turn rating is 4, indicating that it must move 4' before it can turn.

When making a turn, the aircraft disk (or miniature) is pivoted around its center-point up to 60°. The aircraft will then need to again move its turn rating in SUs before it can make a second turn. This forward movement requirement does not “carry over” from turn to turn—thus, even if a Spitfire ends its activation by moving forward 4' or more, it cannot begin its next activation with a turn.

Tight Turn

Instead of making a normal turn, an aircraft may attempt to perform a “tight turn” and change its direction of travel by up to 120°. In order to do so, the plane must first move forward a number of SUs equal to its turn rating, and have a number of MPs remaining to spend at least equal to its turn rating. If these conditions have been met, then roll one die:

- If the result of this die roll is equal to or greater than the aircraft's turn rating, the aircraft disk (or miniature) may be pivoted around its center-point

† As always, players should remember that pillbugs may not wheel.

by up to 120°. The cost for this action is equal to the plane's turn rating; e.g., a Spitfire performing a tight turn would need to spend 4 MPs.

- If the result of this die roll is less than the aircraft's turn rating, then the aircraft may still be turned as above; however, the plane must first move forward an additional number of SUs equal to the die roll.

If this additional forward movement results in the aircraft not having enough MPs remaining to complete the tight turn, then the turn cannot be made, and the plane's movement ends immediately.

Noel wants to have his Spitfire (turn rating 4) make a tight turn. He must first move the plane forward 4 SUs, and then roll a die. Noel rolls a 2, which is less than the Spitfire's turn rating. Therefore, the plane must be moved forward an additional 2' before the turn can take place. Afterwards, Noel turns the plane to the left 120°, which costs an additional 4 MPs. The total cost for this maneuver is 10 MPs (4 + 2 + 4).



Half Loop

Instead of making a normal or tight turn, an aircraft may attempt to perform a “half loop” and change its direction of travel by up to 180°. In order to do so, the plane must first move forward a number of SUs equal to its turn rating, and have a number of MPs remaining

to spend at least equal to twice its turn rating. If these conditions have been met, then roll two dice, and read the result of each separately (i.e., do not add them together):

- If both die rolls are equal to or greater than the aircraft's turn rating, the aircraft disk (or miniature) may be pivoted around its center-point by up to 180°. The cost for this action is equal to twice the plane's turn rating; e.g., a Spitfire performing a half loop would need to spend 8 MPs.
- If one of the die rolls (but not both) is less than the aircraft's turn rating, then the aircraft disk may still be turned as above; however, the plane must first move forward an additional number of SUs equal to the LOWER die roll. For example, if a Spitfire attempts to make a half loop and rolls a 2 and a 5, then it must move forward another 2' before it can make the turn.

If this additional forward movement results in the aircraft not having enough MPs remaining to complete the half loop, then the turn cannot be made, and the plane's movement ends immediately.

- If neither die roll is greater than the aircraft's turn rating, then the aircraft may still be turned as above; however, the plane must first move forward an additional number of SUs equal to the SUM of the die rolls. For example, if a Spitfire attempts to make a half loop and rolls a 1 and a 2, then it must

move forward another 3' before it can make the turn.

If this additional forward movement results in the aircraft not having enough MPs remaining to complete the half loop, then the turn cannot be made, and the plane's movement ends immediately.

OTHER MOVEMENT CONSIDERATIONS

Stacking

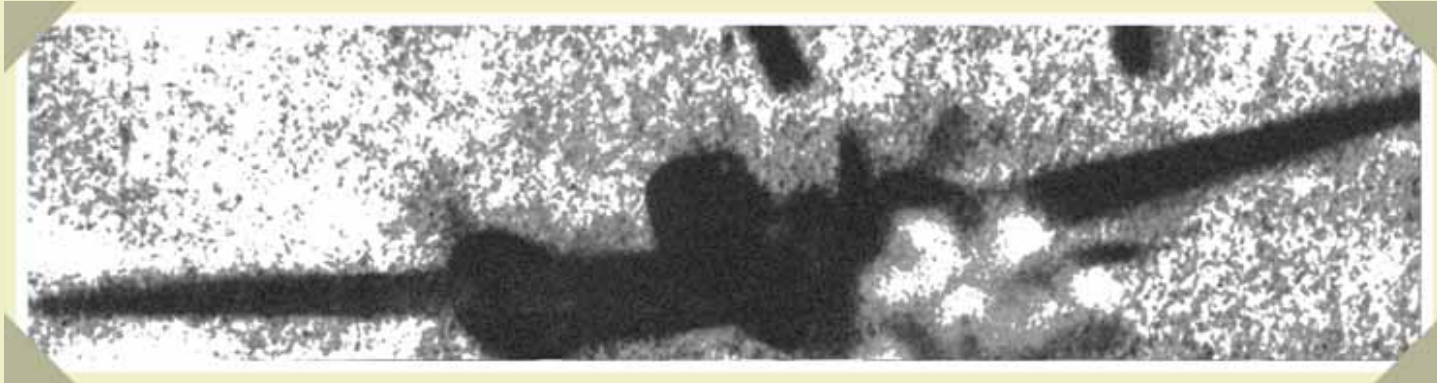
An aircraft may move through/over/under another plane, friendly or otherwise; however, no plane may end its movement in a space already occupied by another.

A situation may occur where this happens inadvertently—e.g., a plane which has failed its tight turn roll and is required to move forward a specific distance, forcing it to end its movement on top of another plane. In such circumstances, the acting plane should be moved backwards along its flight path just enough to avoid the overlap.

Exiting the Game Board

An aircraft that moves off of the playing area may not return to the game. It is removed from the game board and is considered destroyed, awarding victory points to the opposing side as if it had been shot down.

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COMBAT

BEFORE ATTACKING

When it comes time for an aircraft to make its attacks, there are four things that must be taken into account: declaration of targets, altitude, firing arcs, and range.

Declaring Targets

Before resolving any of its attacks, an aircraft must declare at which target(s) it will be firing, and what weapon(s) it will be using against each, remembering that each weapon can only be fired once per turn.

- Forward fixed (FF) weapon systems are “pilot-fired” weapons, and must all attack the same target.

- Other (non-FF) weapons may be split up among different targets as desired, subject to firing arc restrictions.

In *SPITTING FIRE*, “4RT” may indicate a single turret with four barrels, a pair of two-barrel turrets, or four individually-mounted weapons. As a result, even though the “4TT” on a Defiant represents a single turret, its weapons may be used to fire at up to four separate targets.

While this is unrealistic, it keeps the aircraft data cards relatively simple, and ultimately makes little difference in play, as planes will likely use their weapons to attack the closest target(s) anyway, meaning that their weapons will largely remain grouped.

Altitude

The first consideration when choosing targets is altitude. An aircraft may only attack targets at its same level. Remember that altitude changes take effect after the plane has moved; thus, if a plane begins at altitude 7, and performs a dive maneuver, it is at altitude 6 when it makes its attacks.

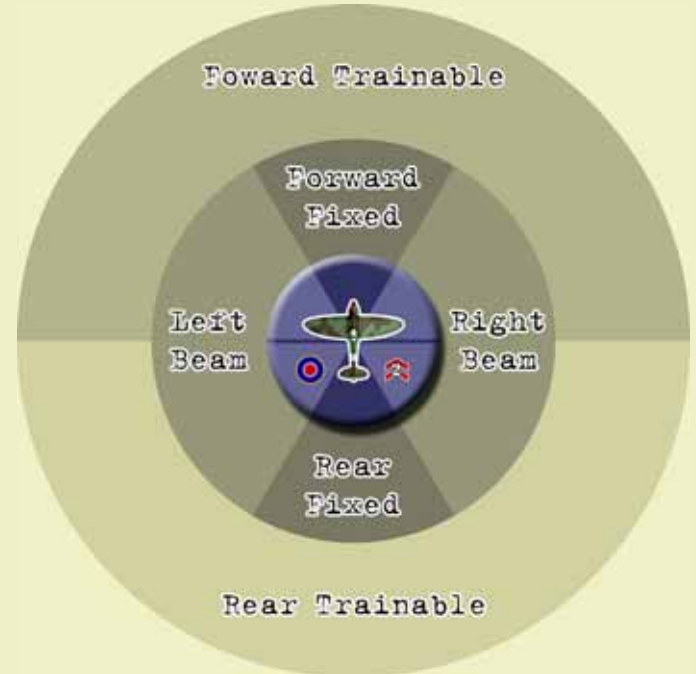
Obviously, if the plane is attacking before it moves (such as due to tailing, p.28), it does so at its starting altitude.

Firing Arcs

A weapon may only attack a target that is within its firing arc. To determine this, draw an imaginary line from the center of the target miniature (or disk) to the center of the attacker's miniature (or disk). The relationship of this line to the attacker's facing will determine within which arc(s) the target lies.

There are seven firing arcs in SPITTING FIRE:

- **FORWARD FIXED (FF):** A 60° arc in front of the aircraft, centered on its facing (denoted by the front arc on the disk).
- **REAR FIXED (RF):** A 60° arc behind the aircraft, centered on its facing (denoted by the rear arc on the disk).
- **LEFT BEAM (BL):** A 120° arc to the left of the aircraft, perpendicular to its facing (denoted by the space between the front and rear arcs).

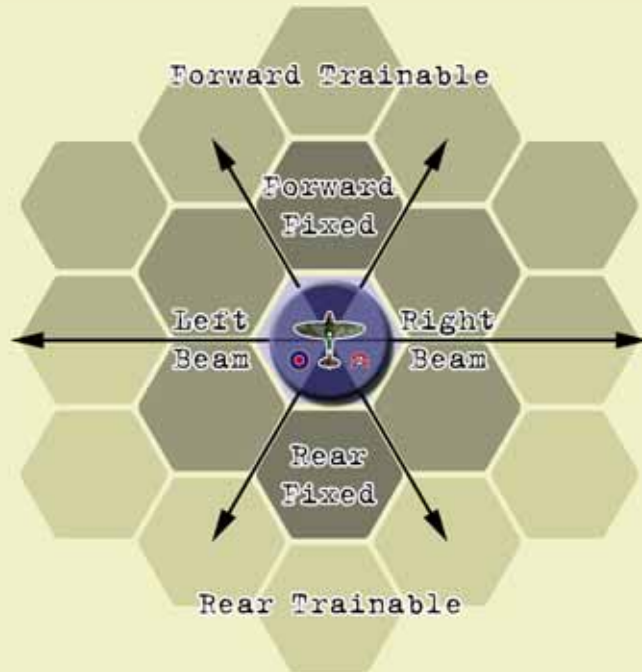


- **RIGHT BEAM (BR):** A 120° arc to the right of the aircraft, perpendicular to its facing (denoted by the space between the front and rear arcs).
- **FORWARD TRAINABLE (FT):** A 180° arc in front of the aircraft centered on its facing (anything in front of the midline on the disk).
- **REAR TRAINABLE (RT):** A 180° arc behind the aircraft, centered on its facing (anything behind the midline on the disk).

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- **TRAINABLE TURRET (TT):** A 360° arc of fire.

When playing on a hexgrid, the firing arcs are bounded by imaginary lines drawn between opposing vertices, as shown below:



If this line crosses through a hex, that hex is considered to be within both firing arcs; e.g., hexes at exactly “3 o’clock” and “9 o’clock” are within both the forward trainable and rear trainable arcs, while a hex at “11 o’clock” is within the forward fixed and left beam arcs.

The weapons section of the aircraft data card indicates which arcs are covered by each weapon. For example, the *Zerstörer’s* light machine guns are listed as “4FF,RT”, indicating four forward fixed and one rear trainable gun.

Range

The distance from an attacker to its target is referred to as the range, and is determined by measuring the distance from the center of the attacking plane’s disk (or miniature) to that of the target.

The range is then compared to the following chart:

DISTANCE	RANGE	TO-HIT
Up to 2’	Short	4+
Up to 4’	Medium	5+
Up to 6’	Long	6+
More than 6’	No attack possible	

Note that all weapons in **SPITTING FIRE** have the same range bands—this is because the key factor in hitting the target is not the distance the weapon can theoretically fire, but instead the ability of the weapon’s operator to track the target, which becomes more difficult as the range increases.

ATTACK PROCEDURE

Making an attack is a two-step process:

- (1) First, the to-hit roll is made, indicating whether or not the shot is “on target”.

- (2) If to-hit roll is successful, a damage roll is conducted to determine whether the target was able to evade some or all of the damage from the attack.

The To-Hit Roll

The first step in an attack is the to-hit roll, which is made by rolling one die per weapon; e.g., if firing three weapons at a target, three dice are rolled. The result of each roll is read separately; i.e., do not add the results together. If the result of the die roll is equal to or greater than the "To-Hit" number obtained from the range chart (see above), the attack is successful; otherwise, the attack is unsuccessful.

The Damage Roll

Whenever a weapon's to-hit roll is successful, a number of dice are rolled equal to the weapon's damage value. For example, a 30mm cannon has a damage value of 4; therefore, if the to-hit roll for a 30mm is suc-

cessful, 4 damage dice are rolled. The result of each die is compared to the target's defensive value: if the result is equal to or greater than this number, a point of damage has been scored.

Mark off a number of boxes on the target's data card equal to the number of points of damage inflicted. Once all of an aircraft's damage boxes have been marked off, the plane has been shot down and its disk (or miniature) is removed from the game board. The attacking side receives a number of VPs equal to the destroyed plane's point cost.

Once the last member of a flight group has been shot down, one card of that side's color should be removed from the activation deck. If the flight group has not activated in the current turn, remove the card from those remaining to be flipped and reshuffle them; otherwise, take the card from the discard pile. In this way, the distribution of cards in the deck will always match the number of groups on the game board.