WW1 AERIAL COMBAT

Tactical Rules

V.6 – 2012-08-09

Contents

Preparation

Gaming Surface

Games should be played on a flat surface: a table, a carpet, or a floor section whose boundaries are well defined. The dimension of the gaming surface may be chosen freely as agreed by the players but should not be less than 90cm x 90cm for patrol missions or 135cm x 90cm for recon/bombing/strafing/rescue/etc. missions.

Forces

The aircraft in a single scenario must be divided into two forces; Central Powers and Allied. If there are more than two players, then players must be split into two teams; one for each force. Players each choose one or more a model aircraft(s), as required, from the forces available to them for the relevant scenario. The models are then placed on the gaming surface in front of the players, facing the opponent. Each model must be put on a stand with the specific aircraft's name and statistics printed on the rear of the base.

Game Components

Each player takes a control panel for each aircraft and takes the appropriate manoeuvre deck as indicated by the blue letter on the model's base. Remove the two cards with red manoeuvre paths (the cards with the highest numbers) as these are not used in the game. Place the manoeuvre deck on the manoeuvre deck area of the control panel. In the upper-right corner of the control panel, place the aircraft card which corresponds to the model used with this board.

Remove the explosion cards from the "A" deck of Damage cards and shuffle.

Remove the explosion cards from the "B" deck of Damage cards and shuffle. This will be required if aircraft equipped with a single machinegun are used.

Shuffle the "C" deck of Damage cards. Do not remove explosion cards! This will be required if anti-aircraft artillery is used. If a "C" deck is not available, the table below can be used.

Shuffle the "D" deck of Damage cards. Do not remove explosion cards! This will be required if rocket equipped aircraft are used. If a "D" deck is not available, the table below can be used:

C Deck:

D20	D100	Damage	Flaming Onions
1-10	01-50	0	

11	51-55	1	
12	56-60	2	
13-14	61-70	4 & Fire	
15-16	71-80	6 & Engine	6 & Engine & Smoke
17	81-85	6 & Aircrew	
18	86-90	8 & Smoke	8 & Fire
19	91-95	10	
20	96-00	Explosion	

D Deck:

D20	D100	Damage
1-10	01-50	0
11-13	51-65	3 & Fire
14-16	66-80	6 & Fire
17-19	81-95	9 & Fire
20	96-00	Explosion

The Game Turn

Each game turn has a planning phase and three movement & fire phases.

Planning Phase

At the start of the turn, players choose three cards from their aircraft's manoeuvre decks. These cards are the three manoeuvres that each aircraft will perform during that turn. Place these cards face down in the three spaces of the control panel. The card in space 1 will be the first to be performed, the card in space 2 will be the second, and the card in space 3 the third.

Movement Phase

When all the players have planned their moves, they reveal the first of their manoeuvre cards for the turn. Each player puts his manoeuvre card in front of his aircraft base so that the beginning of the arrow matches the little black line in front of the base. Then he takes the aircraft base and puts it on top of the manoeuvre card, so that the black arrowhead on the rear of the base matches the arrowhead of the manoeuvre.

Fire Phase

After all aircraft have moved using their manoeuvre cards, the players check to see if anyone can shoot. Firing is not mandatory; players may decide not to fire with an aircraft if they do not wish to. Scouts can only fire at a single target each phase, choosing just one if there are several possible targets. Two-seaters that have more than one weapon have separate firing zones, and can fire at one target in each firing zone. All firing in a single phase is simultaneous.

Damage

When an aircraft is fired at, its owner takes the damage card(s) and secretly looks at them, adding any damage numbers to their current total for that aircraft and noting if there is any special damage listed (some damage cards have symbols - See Special Damages). They keep all damage cards for each aircraft together, facedown, in the damage area of the target aircraft's control panel, adding up the numbers on the cards. When the total reaches or exceeds the green number on the aircraft's base, the aircraft is shot down and removed from play. All damage is resolved simultaneously after all aircraft that want to fire have fired. Therefore, an aircraft that is shot is down may still fire in the same phase that it was shot down in.

Rest of the Turn

Each turn is composed of three phases. After all aircraft have resolved their firing, the first game phase is ended. Everybody reveals the second manoeuvre card for the turn. Move and resolve firing. Then reveal the third card, move, and resolve firing, which completes the game turn.

Before picking up used cards for the next turn, if the last manoeuvre of the turn was steep, the player places that counter on their control panel, to remember that at the beginning of the next turn they can't perform another steep manoeuvre. If the last manoeuvre was an Immelmann turn or Split-S, the player takes one of those counters to remember that they must begin the next turn with a "straight" manoeuvre. If the last manoeuvre was a straight manoeuvre, the player takes one of those counters to remember that they can begin the next turn with an Immelmann turn if they wish.

Then the planning of the next turn can begin again.

Planning

At the start of the turn, players choose three cards from their aircraft's manoeuvre decks. These cards are the three manoeuvres that each aircraft will perform during that turn. Place these cards face down in the three spaces of the control panel. The card in space 1 will be the first to be performed, the card in space 2 will be the second, and the card in space 3 the third.

Steep manoeuvres

 Cards with this symbol are steep manoeuvres. At least one non-steep card must be played before another steep manoeuvre may be used. In other words, you may not plan two steep manoeuvres in a row. If the last card of the previous turn was a steep manoeuvre, you cannot use a steep manoeuvre as the first card of the new turn.

Stall

 A steep manoeuvre with a short arrow is called a stall.

Immelmann Turn

An Immelmann turn is a climbing 180 degree turn. This card must be immediately preceded and immediately followed by a straight card.

Movement

Each player puts his planned manoeuvre card in front of his aircraft's base so that the beginning of the arrow matches the little black line in front of the base. Then he takes the aircraft base and puts it on top of the manoeuvre card, so that the black arrowhead on the rear of the base matches the arrowhead of the manoeuvre.

Overlapping

It is possible that, at the end of a manoeuvre, two aircraft would move to the same location on the gaming surface. A partial overlapping of the bases is acceptable. When the presence of the stands or the contact between models makes it impossible for everybody to execute their manoeuvre exactly as planned then at least one aircraft must evade in order to avoid a collision. Roll a D6 for each aircraft; the aircraft with the highest number moves first, executing the manoeuvre as planned. Then, following the order shown on the dice, each player will move his aircraft as close as possible to its planned destination, keeping the aircraft with the same orientation as planned and moving from its planned destination as little as possible.

Two or more aircraft with overlapping bases may only fire at each other with pilot-fired machineguns and only if the centre of the target's base is within the firer's zone of fire. Only one damage card is drawn because of the need for the pilot to take evasive action. Observer-fired machineguns cannot fire as the target is assumed to have flown under the two-seater to avoid a collision.

Overlapping aircraft can shoot at other aircraft and other aircraft can shoot at the overlapping aircraft using the normal rules. The overlapping aircraft don't block each other's aim. Overlapped aircraft cannot tail.

Illegal Moves

If a player plans an illegal move (for example, two steep manoeuvres in a row), the illegal card is replaced by a straight manoeuvre. The aircraft immediately takes stress damage. Draw one card from the A deck, ignoring any special damage. If this card causes an aircraft to reach its damage total then it can be awarded as a victory to anybody who shot at it in the previous manoeuvre.

Exiting the Gaming Surface

If, at the end of a manoeuvre, the centre of any aircraft's base is outside the playing area, that aircraft is removed from the game. An aircraft that exits while on fire must immediately take damage cards for all remaining fire markers.

Tailing

Sometimes a pilot is in an advantageous position behind another aircraft in which he can anticipate the actions of his adversary; called "tailing". Check for tailing at the start of each turn.

To see if tailing is possible, use the ruler to connect the centre of the rear aircraft's base with the centre of the base of the aircraft in front of it. The aircraft at the rear is attempting to tail, while the aircraft ahead of it is being tailed. Tailing is possible if the following conditions are met:

- the distance between the centres of the bases is one ruler length or less
- the ruler passes through the front of the tailing aircraft's base and the rear of the tailed aircraft's base.
- the ruler does not cross any other aircraft in-between.
- the tailing aircraft's base is not overlapped.
- the tailing aircraft is neither smoking nor on fire.

An aircraft can choose to tail only one enemy for that turn.

The two aircraft plan their turns as normal, but before revealing the first manoeuvre, the tailed player has to show his first manoeuvre card to the tailing player. The tailing player can then rearrange the three cards he has chosen in any order he wants. Then the manoeuvres are revealed and the aircraft are moved. After firing is resolved, but before revealing the second manoeuvre, check whether tailing is still possible between those two aircraft. If it is not, the rest of the turn is played normally. If tailing is still possible, the tailed player has to show his second card to the tailing player, and the latter can rearrange the order of the tailing aircraft's two remaining manoeuvre cards. Tailing is possible only between two aircraft that were in tailing position at the beginning of the turn. Aircraft cannot begin tailing a new aircraft in the middle of a turn, but they can lose the ability to tail in the middle of a turn.

Firing

After all aircraft have moved using their manoeuvre cards, the players check to see if anyone can shoot. Firing is not mandatory; players may decide not to fire with an aircraft if they do not wish to. Scouts can only fire at a single target each phase, choosing just one if there are several possible targets. Two-seaters that have more than one weapon have separate firing zones, and can fire at one target in each firing zone. All firing in a single phase is simultaneous.

Checking the Range

Take the ruler and put an end at the centre of the firing aircraft's base. If the ruler stays inside the fire arc on the firer's base, and can reach any point of the target's base, then the aircraft can fire at the target. If the target is reached by the first half of the ruler, the player who owns the target aircraft draws two cards of damage, from the deck that matches the letter of the firing aircraft. If reached by the second half of the ruler, the target aircraft takes only one card of damage.

Line of Sight (LOS)

Aircraft must have line of sight to their target and cannot fire through another base, enemy or friendly. If it is not possible to reach any point of the target base from the appropriate position of the firing without the range ruler passing through another aircraft, then the LOS is blocked. If it passes over or under the intervening aircraft due to a difference in altitude then the aim is not blocked and the firing aircraft can fire as normal. LOS is blocked firing into, out of or through a cloud.

Aimed Fire

When an aircraft is firing at the same enemy aircraft from the same gun (front or rear) for consecutive phases, it can fire with more accuracy. From the second consecutive phase of fire onward, even from one turn to the next, all non-zero damage cards score one additional damage point. Zeros still cause no damage.

To avoid confusion, keep the +1 damage cards in the proper space on the aircraft's control card.

Blind Spots for Rear Gunners

Rear machine gunners had a blind spot at the tail. Use the ruler to connect the centre of firing airplane's base with the centre of the target's base. If the ruler crosses the flat part of the rear of the firer's base, then close range shots draw only one damage card.

Damage

There are four damage decks, "A" through "D", for different types of firer. Aircraft with twin machine guns are marked "A" and use this damage deck when firing. Aircraft with single machine guns are marked "B" and use this deck when firing.

Targets hit by fire pick cards from the corresponding damage decks. When an aircraft is fired at, the owner of that aircraft takes the damage card(s) and secretly looks at them, adding any damage numbers to their current total for that aircraft and noting if there is any special damage listed (some damage cards have symbols - See Special Damages). They keep all damage cards for each aircraft together, face down, in the damage area of the target aircraft's control panel, adding up the numbers on the cards.

All damage is resolved simultaneously after all aircraft that want to fire have fired. Therefore, an aircraft that is shot is down may still fire in the same phase that it was shot down in.

Disruption

If an aircraft takes at least one point of damage in a phase, it loses any tailing and aim advantages for the next phase.

Shot Down

When the total reaches or exceeds the green number on the aircraft's base, it is shot down. Aircraft that have been shot down are immediately removed from play.

Special Damage

These are special damages to the target aircraft (exception: Jammed guns affect the firing aircraft). Some of these damage effects must be revealed to the other players, while others may (and should!) be kept secret. Where appropriate, players announce the special damage and put the proper damage counters on the base of the aircraft; do not reveal the amount of damage points.

Jammed Guns

A player must reveal damage cards that have a jammed guns symbol to the player controlling the aircraft that fired. The aircraft that fired has jammed guns and cannot fire until unjammed.

Two-seater aircraft that have more than one weapon have separate firing zones, only the gun that was shooting at the target aircraft when the jammed damage card was drawn is considered jammed.

The time taken to unjam the guns should not be predictable. Take two "jammed" counters and put them on the manoeuvre area on the control panel of the firing aircraft. The machinegun discards one jammed counter after performing each subsequent manoeuvre, In order to do so the manoeuvre may not be steep or an Immelmann. The final counter may only be removed by rolling 4+ on a D6. The machinegun may fire immediately following the same manoeuvre as it succeeds in unjamming.

Novices and wounded aircrew take one additional "jammed" counter.

Explosion

If a card with an explosion symbol is drawn, the aircraft "explodes" and is immediately destroyed and eliminated. This card is only present in the "C" and "D" damage decks. It should have been removed from the "A" and "B" decks.

Rudder Jammed (Left)

Cards with this symbol indicate that the rudder of the aircraft is jammed and it is unable to turn left in the next turn. The aircraft cannot use manoeuvres turning to the left (with a little arrow pointing left in the lower left corner of the card) for the next turn. Any manoeuvres already selected for the remainder of this turn are carried out as placed. This special damage is kept secret.

Rudder Jammed (Right)

Cards with this symbol indicate that the rudder of the aircraft is jammed and it is unable to turn right in the next turn. The aircraft cannot use manoeuvres to the right (with a little arrow pointing right in the lower left corner of the card) for the next turn. Any manoeuvres already selected for the remainder of this turn are carried out as placed. This special damage is kept secret.

Aircrew Wounded

This symbol means that the pilot or observer is wounded. This special damage is kept secret. For a scout, the pilot is wounded. For a two-seater, the pilot is wounded if the card is a "3" damage, otherwise the observer is wounded.

The following restrictions apply to wounded aircrew:

	Pilot	Observer
1 wound	- May not use aimed fire. - May not fire just after executing a steep manoeuvre. - Jammed machineguns take an additional "jammed" counter. - May not use the Immelmann turn card.	- May not use aimed fire. - Jammed machineguns take an additional "jammed" counter.
2 wounds	- Must turn for home and leave the playing area by the nearest friendly edge using the shortest possible route. - May not fire or perform mission (bombing etc.).	May not fire or perform mission (bombing etc.).
3 wounds	Dead. Aircraft crashes and explodes	Dead

Engine Damage

This symbol means that the engine is damaged. This special damage is kept secret. The aircraft must play at least one stall Manoeuvre each turn (one with a short arrow and the symbol) up to the end of the game. If an aircraft takes a second engine damage, it has been shot down.
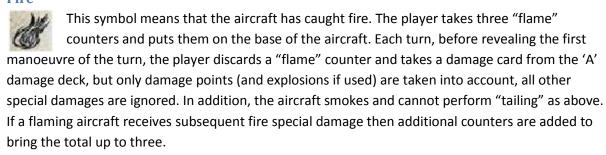
Smoke

This symbol means that the aircraft leaves a smoke trail. The player takes three "smoke" counters and puts them on the base of the aircraft. Each turn, before revealing the first manoeuvre of the turn, the player discards a "smoke" counter. The aircraft cannot perform "tailing" until after all "smoke" counters are removed. The smoking aircraft can be tailed normally by other aircraft. If a smoking aircraft receives a second smoke special damage then treat as a fire special damage after first having removed all remaining smoke counters.

Fire

This symbol means that the aircraft has caught fire. The player takes three "flame" counters and puts them on the base of the aircraft. Each turn, before revealing the first manoeuvre of the turn, the player discards a "flame" counter and takes a damage card from the 'A' damage deck, but only damage points (and explosions if used) are taken into account, all other special damages are ignored. In addition, the aircraft smokes and cannot perform "tailing" as above. If a flaming aircraft receives subsequent fire special damage then additional counters are added to bring the total up to three.

Altitude

Altitude rules are optional.

When you use altitude rules, you will use the four pegs included with each airplane model, inserting and removing them to show the current altitude of the model.

Each plane takes two red manoeuvre cards—a "climb" card and a "dive" card—and adds them to its manoeuvre deck. These two cards are used in planning in the same way as all other manoeuvre cards but they have special effects.

Each plane starts the game at a certain altitude, agreed upon by all the players. It must be at least 1 and no higher than 3. Put as many stands between the plane base and the model as the agreed altitude for that plane, plus one (so an airplane at altitude 2 will have 3 stands inserted).

Balloons start at an altitude of 3, unless the players agree otherwise.

No plane can go higher than altitude 3: At that height, a manoeuvre card that would bring the plane to 4 is considered an illegal manoeuvre. The minimum altitude for flying planes is 0, if they have at least a climb marker on them. At 0 level without climb markers, the plane is considered landed. Remove the plane from the pegs and just place it on the airplane base.

Each type of plane and balloon has a maximum altitude that it can reach and a "climb rate" which indicates the number of "climb" counters that the plane must accumulate before it gains another level of altitude.

Airplane	Ceiling (maximum altitude)	Climb rate
Halberstadt D.III	10	5
L.F.G. Roland C.II	10	5
Nieuport 11/16	10	5
RAF R.E. 8	10	5
Pfalz D.III	11	5
Pomilio PC	11	5
Albatros D.III	11	4
De Havilland/AIRCO D.H. 4	11	4
Pfalz D.IIIa	11	4
Ufag C.I	11	4
Breguet BR.14 A2/B2	12	4
Nieuport 17/21/23	12	3
Siemens-Schuckert D.I	12	3
Albatros D.Va	13	3
Sopwith Triplane	13	3
Fokker Dr. I	13	2
Sopwith Camel	13	2
Hanriot HD1	14	3
SPAD XIII	14	3
Sopwith Snipe	14	2
Fokker D.VII	14	2
Balloon	4	3

Dive

When a plane performs a dive manoeuvre, it descends one level of altitude. Take away a peg from under the model and remove any climb counters that the plane has on its control panel.

If a plane dives to level 0, discard all the climb counters it has except for one. If it has none, place one climb marker on it.

The dive card is coloured red and looks like a straight, but it is not considered a straight as far as other rules are concerned.

Example: An airplane cannot plan a dive, an Immelmann turn, and a straight, since it must do a straight before the Immelmann.

Climb

When a plane executes a climb, give it a climb counter. When the number of climb counters reaches the climb rate indicated on the table below, remove all of them: The plane gains 1 altitude level and the model gets a new peg to be put between it and the base

Example: A Pfalz D.IIIa (climb rate of 4) is at level 7 of altitude. In past turns it accumulated two climb counters. When the plane executes a new climb, it gets a third climb counter. When in the next turn it executes another climb, it gets a fourth climb counter. Since its climb rate is 4, the plane goes immediately to altitude level 8 and loses all climb counters.

The climb card is coloured red and looks like a stall, but it is not a stall as far as other rules are concerned.

Example: An airplane with a damaged engine (see special damage rules) cannot plan a straight, a climb, and a left sideslip, since it must do a stall each turn.

A climb cannot be planned if it would bring the plane to an altitude of 4.

Immelmann Turns

The Immelmann turn is executed as in the basic game, but the plane also receives a climb counter as soon as it is executed. The Immelmann turn cannot be executed in the same turn as a climb.

Split-S

The Split-S is a downward Immelmann turn. Use the standard Immelmann card. When it is planned, it must have a **stall** before it and a straight after it.

When a Split S is executed, the plane loses a climb counter. If it has none, it loses 1 altitude level and it takes a number of climb counters equal to the climb rate of the plane minus one.

If a plane at 0 altitude loses its last climb marker because of a Split-S, it crashes to the ground and is eliminated.

The Split-S cannot be executed in the same turn as a dive.

Overdive

The dive is a steep manoeuvre, but a plane can plan one just after a stall if it plans a straight just after the dive. This sequence is called an "overdive."

At the moment of executing the dive, the plane loses a level and it discards all the climb counters that the plane had. At the end of the following straight, it loses another level.

An overdive can also be used to pass from level 2 to level 0: In that case, the airplane keeps a climb counter. Airplanes at 1 or 0 level cannot execute overdives: If they plan one by mistake, they crash to the ground and they are eliminated.

Planes not having an Immelmann card in their deck cannot execute overdives. (They are not manoeuvrable enough to do so.)

Blocked Aim

When an airplane fires at a target its aim is blocked only by airplanes or balloons at the same altitude as the firer or the target. Only the altitude level counts, not the number of climb counters on the airplanes or balloons.

Rear machine-gunners had a blind spot at the tail. Use the ruler to connect the centre of firer's base with the centre of the target's base. If the ruler crosses the flat side of the rear of the firer's base, firing is not possible if one of the following apply:

- The target is at the same altitude level and the ruler touches any point of the target's base with its first half.
- The target is at a lower altitude level.

Firing

When a plane fires at a target whose altitude differs by one level, treat short range (half a ruler) as if it was long range (one card of damage). Planes at one level of difference and at more than half of the ruler distance, or at two or more levels of difference, can't fire each other.

Tailing

Tailing can be executed normally if the tailing plane is one level higher than the tailed one, at the same distance of one ruler. No tailing is possible if the tailing plane is two or more levels higher, nor if it is one or more levels lower.

Landings, Takeoffs, and Crashes

At the start of the game, if you want to have a landing field in the game, set its limits. It should be at least 9 x 27 cm. Draw on the table or put a sheet of paper of the right shape. This could represent a real airfield or just a nice spot where somebody is waiting for rescue.

Landing

The plane must be at 0 level of altitude with one or more climb markers. The sequence of cards must be: First perform a dive to discard all the climb markers (it touched the ground—remove any stand from the model), then a straight, then a stall. Then movement for that turn ends, even if there would be more phases: Any manoeuvre planned after the stall is just for bluffing and will not be executed.

Takeoff

The plane must start with the centre of its base inside the landing field. It must do a stall, then a straight manoeuvre (it is still on the ground), then the "climb" card (it is now flying—put a stand under the model). If the player wants to start taking off in the second or third phase, just play one or two non-stall manoeuvres before the stall, and ignore them when they should be executed: The plane will complete the takeoff sequence next turn. If the plane has the centre of its base inside the airfield and wants to pretend to take off without doing it (the plane has the engine on but it stays in the same place) just plan three non-stall cards: The plane can't be moved or turned that turn.

Crashes

If a grounded plane ends with the centre of the base out of the landing field while it is taking off (after the stall or the straight) or landing (after the dive, the straight or the stall), it crashes. It takes 2 A damage cards if it happens with the stall, 3 A cards if after the straight. Take into account damage points, explosions, and fire, but ignore all other special damages. The plane is grounded (take away any stand from the model) and it has to be completely still for all the next turn. If it is not destroyed, it can be moved or turned, or start a new takeoff, from the second next turn onward.

If a plane loses its last climb marker while it is at 0 level and the centre of its base is out of the landing field (because of bad planning), it crashes. It takes 4 A cards of damage. Take into account damage points, explosions, and fire, but ignore all other special damages.

Planes on the Ground

While on the ground, planes cannot fire, but they can be fired at. During the second phase, before any manoeuvre card is revealed, the owner can move and turn the plane base freely. To turn, put a finger on any point of the plane base and then turn the base around that point.

Fire on the Ground

A plane cannot take off if it has fire counters. At the start of each turn, before considering fire damage, take an A damage card to see if the ground personnel or the pilot manage to extinguish part of the fire. Don't take any damage from these cards, but if you draw a 0, take away a flame counter without taking any damage in exchange for it. If one or more counters are left, trade one for the damage as normal.

At the end of the turn, if a plane on the ground that is on fire overlaps one or more planes not on fire that are on the ground, the latter each take two flame counters.

Collisions

Two overlapping planes and/or balloons collide if they are both at the same altitude level and

1. they both have no climb counters.
2. they both have climb counters(no matter how many).

When a plane collides with another plane the both take an A-deck damage card unless one pilot declares that he is ramming in which case the C-deck is used. When a plane collides with a balloon they both take a C-deck damage card. It is possible to collide with more than one plane.

Example: A Nieuport 17 at an altitude of 2 and with 2 climb counters overlaps with both a 2-altitude Austrian balloon with 1 climb counter and a 2-altitude Pfalz D.III with 3 climb counters. The balloon

and the Pfalz don't overlap each other, but the balloon also overlaps with a 2-altitude Sopwith Camel with no climb counters.

The balloon and the Sopwith don't collide, since one has climb counters and the other does not. The Pfalz and the balloon both collide with the Nieuport resulting in:

- Pfalz – one A-deck damage card
- Nieuport – one A-deck and one C-deck damage card
- Balloon – one C-deck damage card

Scenario Specific Altitude Rules

Flying Higher
If this optional rule is in use, each game starts with a specific "floor" that is the minimum altitude at which the planes can fly. If there is no specific agreement on that, the "floor" is zero. The "ceiling" is 3 levels higher: 3 if the floor is 0, 4 if the floor is 1, and so on.

Each plane starts the game at a certain altitude, agreed among the players.

It must be at least 1, no lower than the floor, and no higher than the ceiling. Put one stand between the plane base and the model plus one for each level agreed above the floor.

Each plane model has also a maximum altitude that it can reach. No plane can climb above its maximum altitude nor above the ceiling of the scenario (the limit of 4 of the basic rules is replaced by the limit to the ceiling). No plane can dive below the floor of the scenario. Accidentally doing so means that the plane is eliminated, just as if it went out of the gaming surface.

Before planning a turn, any player can propose to change the floor and the ceiling of the scenario. Any new floor can be chosen, if all players agree. If one or more players do not agree, the change is not possible. The choice of the new floor must be made in a way that all planes still in the game are at an altitude included between the floor and the ceiling.

Example: A Sopwith Camel at an altitude of 5 and a Fokker Dr.I at an altitude of 6 are playing a scenario whose floor is 4. If both players agree before planning the next turn, the floor can be instantly changed to 3 or 5: no lower than 3 or the Fokker would be higher than the new ceiling, no higher than 5 or the Camel would be lower than the new floor.

Cloud Cover
Players can agree that there is a cloud cover above the starting ceiling of the scenario: For example, at an altitude of 4 if the agreed starting ceiling is 3. It is then allowed to climb above the ceiling reaching the cloud cover.

When a plane reaches the altitude of the cloud cover, it stops moving on the table. The player keeps on planning manoeuvres as normal, but the airplane base stays in the same position that the model would have reached after the climb. It is just a reminder: It cannot fire, be fired on, or collide with other planes.

The plane cannot climb more, neither with a climb card nor with an Immelmann turn. Its manoeuvres are kept one on top of the other (or written down) until a dive or a Split-S is executed. In that phase, the player takes all the pile of the manoeuvres planned since the climb and he executes all of them immediately, in the order he planned them, putting the model back on the gaming field. If the plane exits the gaming surface at the end of any manoeuvre card, the plane is out of the game. If not, as soon as the plane executes the dive or the Split-S, it is back under the cloud level and it can fire, be fired at, collide, and climb again normally.

Even if the ceiling of the scenario is moved, the cloud cover stays at the same level.

Ground Fire Rules

Trenches

Infantry trenches are placed on the table at the start of the game and they may never move. They have a 360 degree arc of fire.

In low-level scenarios such as strafing and balloon-busting, infantry in the trenches can fire at airplanes that are one ruler's length away. The plane takes a single 'A' card, regardless of the distance. Ignore the damage points on the card and count only special damage results. Each trench can make a single shot each round. If there are several possible targets, the player controlling the trench chooses among them. Infantry fire never jams.

Trenches can be strafed by forward firing guns (i.e. not by observers in two-seater planes). Damage cards from strafing are kept face up beside the trench. When a trench card suffers 5 or more points of damage it is "neutralised" and may no longer fire. Trenches ignore special damage.

Fire from and at trenches can only be performed from level 0 or 1 if the altitude rules are in use.

Anti-aircraft machineguns

Anti-aircraft machineguns are placed on the table at the start of the game and they may never move. They have a 120 degree arc of fire. Anti-aircraft machineguns can be strafed in exactly the same way as trenches.

In low-level scenarios such as strafing and balloon-busting, anti-aircraft machineguns can fire at aircraft that are one ruler's length away. The aircraft takes a single damage card regardless of the distance. Use an 'A' card or 'B' card depending on the machinegun type. They jam in the same way as aircraft firing.

Fire from and at anti-aircraft machineguns can only be performed from level 0 or 1 if the altitude rules are in use.

Anti-aircraft artillery (Archie)

Anti-aircraft artillery (Archie) is placed on the table at the start of the game and they may never move. Archie has a 360 degree arc of fire using the 'C' damage deck. They can be strafed in exactly the same way as trenches. Archie can be used in all scenarios regardless of altitude. Archie fire is simultaneous with all other types of fire for that manoeuvre phase.

Archie can be player controlled in which case that player may not fly any aircraft. Otherwise the Archie is random controlled.

Player Controlled Archie

Archie starts the game with three "roundel" counters on them, showing that they are loaded.

Archie that is loaded at the beginning of a phase may fire. At the start of any phase, just before manoeuvres are revealed, the player controlling the gun can place an Archie fire marker anywhere on the table within a range of 2 rulers distance except directly above the Archie base.

When altitude rules are in use, the player must declare the altitude at which the shot is aimed (minimum level 1, maximum level 5).

After placing the Archie fire marker, two airplane manoeuvre phases are shown and executed. After that second manoeuvre, if one or more airplanes (friend or foe) overlap at least part of the Archie fire marker and at the same altitude level, each of them takes a 'C' damage card. The Archie fire marker is then removed.

For each manoeuvre phase after the Archie fire took effect place a "roundel" counter on the Archie. After three manoeuvre phases the Archie has reloaded and may fire the next phase.

Random Archie

Archie starts the game with four "roundel" counters on them, showing that they are loaded.

Archie that is loaded at the beginning of a fire phase will fire if it has a target.

Archie will fire at the closest target. Targets within a half ruler distance of a balloon are ignored. Overlapping aircraft count as one target. If the closest target is a friendly aircraft, roll 2+ on a D6 to recognise it and move on to the next closest target.

Draw an "A" damage card to see if the aim is correct. If a card with special damage (including jam) is drawn then the aim is on target. Otherwise the shot misses. Replace the card in the deck.

Draw a "C" damage card for the target aircraft and any aircraft overlapping.

For each fire phase after the Archie fire took effect place a "roundel" counter on the Archie. After four phases the Archie has reloaded and may fire the next phase.

Soft Targets

Soft targets are troops in the open including infantry and transports. They are placed on the table at the start of the game and they may never move. They have a 360 degree arc of fire.

They may fire infantry fire in the same way as trenches until such time as they have taken one or more damage, in which case they will no longer fire.

 When they have suffered 5 or more points of damage they are "neutralised".

Mission Rules

Line-up on Target

Prior to any cards for a manoeuvre phase being revealed, a player may declare that he is lining up on a target. To do this he must have played a right or left turn (in the direction of the target) and be within two ruler lengths of the target. The aircraft may turn any amount between the turn played and straight ahead so as to line up on a target.

Observation Arc

The observation arc is the side arc between the wing and the tail, either to port or starboard. Missions such as reconnaissance and spotting often require the observer to keep the target visible with his observation arc.