

RICHTHOFEN'S[†] WAR

INSTRUCTION FOLDER

Introduction to Rules

I. Introduction:

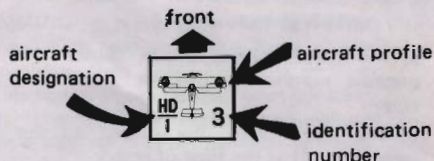
Richthofen's War is probably unlike any other historical simulation game you have ever played. Instead of being placed in the role of a general commanding armies of thousands of men, you are in complete control of one of the combat aircraft that made aerial history during World War I. As such, YOU control your aircraft's speed and altitude, and YOU initiate maneuvers in an effort to down your opponent.

Richthofen's War has been uniquely designed from the point of view of one of the greatest air aces of WW I — Manfred von Richthofen. Most of the aircraft types that he flew or that he scored victories against are contained in the game. Strafing, dogfighting, and balloon-busting scenarios, among others, are included to re-create the whole incredible scope of the world's first air war.

It is suggested that players start with the Basic Game and totally familiarize themselves with it before advancing to the Tournament Game, Campaign Game, and Optional Rules. Use the "Prepare for Play" and "Outline of Play" sections of the Instructions as a quick reference for setting up the game and getting the "feel" of the course of action.

II. Game Equipment

- 1) Outer box sleeve.
- 2) Inner box lid (with Target Damage Table and Critical Hit Table printed on top.)
- 3) Inner box and plastic tray.
- 4) Mapboard.
- 5) Aircraft Counters.
- 6) Scenario Cards (4).
- 7) Instruction Folder.
- 8) Aircraft Status Pad.
- 9) Mission Briefing Manual.
- 10) Two Dice.



2) **BALLOON COUNTERS:** the balloon counters represent fixed-position observation balloons used to direct artillery fire or to observe troop movements: a prime target for fighter aircraft.

3) **ANTI-AIRCRAFT COUNTERS:** the anti-aircraft counters represent larger caliber guns used to defend observation balloons and other important targets from enemy aircraft.

4) **MACHINE GUN COUNTERS:** the machine gun counters represent concentrations of smaller caliber guns used for anti-aircraft purposes.

5) **DUMMY COUNTERS:** the dummy counters, when inverted, are used to mask the actual disposition of the AA or MG counters. Also, they mark the initial starting position of the aircraft counters.

6) **CURRENT SPEED, ALTITUDE-THOUSANDS, and ALTITUDE-HUNDREDS COUNTERS:** See Prepare for Play: "Aircraft Status Pad" for explanation of the function of these counters.

7) **WIND DIRECTION COUNTER:** used for optional rule only.

V. Prepare for Play:

1) **SCENARIO CARDS:** Before beginning play, players should select one of the seven scenarios from the set of scenario cards. (It is suggested that beginning players play the "Richthofen vs. Brown" scenario first.) Contained on the cards will be important information such as the number and type of aircraft on each side, starting positions, victory conditions, and type of mission.

The mapboard is an artist's rendition of an actual aerial photograph of the front-line trenches of World War I. The mapboard encompasses the area near the River Somme between Le Hamel and Sailly-Le-Sec where Brown engaged Richthofen in their famous dogfight. Superimposed over the map is a hexagonal grid used for movement purposes. Each hexagon (hereafter called a hex) represents 50 meters of real space from hexside to hexside. Certain important terrain features are explained below:



trench hexes

Trench-line hexes: Irregular brown lines represent the opposing trench-lines. Hexes containing any amount of brown splotch line are defined as being trench-line hexes. In general, assume that both trench-lines run continuously from one side of the mapboard to the other. Allied territory extends from (but not including) the northern-most trench-line north to all three mapboard edges. German territory extends southward in the same manner.

No-Man's-Land consists of the hexes between the two trench-lines, as well as the trench lines themselves.

Roads: Light-brown lines represent roads. Note that in many cases they do not run through hexes cleanly. In scenarios where roads must be bombed or photographed, it will be necessary to refer to the target-hex listing on the scenario card to ascertain the correct target locations.

Hex-grid: to locate targets, and as a general playing aid, a military style hex-grid has been superimposed on the mapboard. Letters A through OO run down the east edge of the mapboard; numbers 1 through 52 run along the north and west edges of the mapboard. To locate a particular hex, simply cross index the two: for example; X-19 locates the bridge over the River Somme, D-26 locates the "R" in "*Richthofen's War*" on the logo.

IV. Playing Pieces:

1) **AIRCRAFT COUNTERS:** the aircraft counters represent the types of aircraft being flown and mark their position on the mapboard.

selecting the scenario to be played and choosing sides, players must prepare the Aircraft Status Pad (ASP) with the pertinent performance information for the aircraft they will be "flying" as indicated in the scenario card. The information needed for the ASP is located in the Aircraft Capabilities Chart (ACC) found in the Instruction Folder. The exact procedure is as follows:

SPEED (item "a"): players indicate their maximum and minimum speeds (column No. 1 and No. 2) on the Aircraft Capabilities Chart (ACC) by CIRCILING the appropriate matching number on the SPEED section of the ASP. Also, place one of the "Current Speed" indicator counters in the appropriate box to indicate your aircraft's speed at the start of the game. Note that speed is indicated as being the box to the RIGHT of the "Current Speed" counter (in the direction the arrow points to) and NOT by the box that the counter physically occupies.

ACCUMULATED DAMAGE (item "b"): players indicate their Accumulated Damage Factor (column No. 3 on the ACC) by circling the appropriate number on the ACCUMULATED DAMAGE section of the ASP.

As damage is taken, these boxes should be checked off from left to right. When the Accumulated Damage factor is reached, the aircraft is considered shot down.

AMMUNITION SUPPLY (items "c" and "d"): players indicate the ammunition supply capacities for their front-firing and rear-firing guns (columns No. 4 and No. 5 on the ACC) by CIRCILING the appropriate numbers on the AMMUNITION SUPPLY (front) and the AMMUNITION SUPPLY (rear) section of the ASP. Whenever the word "none" appears in columns No. 4 or No. 5 it indicates that the aircraft in question is not equipped with guns that fire in that particular direction.

MAXIMUM ALTITUDE (item "e"): players indicate the maximum altitude at which their aircraft may fly (column No. 6 on the ACC) by writing in the appropriate number in the MAXIMUM ALTITUDE section of the ASP.

MAXIMUM CLIMB (item "f"): players indicate the maximum climb per turn capability (column No. 7 on the ACC) by writing in the appropriate number in the MAXIMUM CLIMB section of the ASP.

MAXIMUM DIVE (item "g"): players indicate the maximum dive per turn capability (column No. 8 on the ACC) by writing in the appropriate number in the

MAXIMUM DIVE section of the ASP.

MAXIMUM DIVE SPEED (item "h"): (NOTE: used in Tournament Game only!) players indicate the maximum speed at which they can perform a dive maneuver (column No. 9 on the ACC) by writing in the appropriate number in the **MAXIMUM DIVE SPEED** section of the ASP.

MAXIMUM OVERDIVE SPEED (item "i"): (NOTE: used in Tournament Game only!) players indicate the maximum speed at which they can perform an overdrive maneuver (column No. 10 on the ACC) by writing in the appropriate number in the **MAXIMUM OVERDIVE SPEED** section of the ASP.

MANEUVER SCHEDULE (item "j"): For Basic Game: players copy the Basic Game maneuver schedule used for all aircraft which is located in the **MANEUVER** section of the Basic Game Rules.

For Tournament Game: players copy the correct maneuver schedule as indicated (column No. 11 on the ACC) on the **MANEUVER SCHEDULE CHART** as a quick reference when making a move.

CRITICAL HITS (item "k"): (NOTE: used in Tournament Game only!) as critical hits are taken, the dice-roll number is recorded in the **CRITICAL HITS TAKEN** section of the ASP.

ACE STATUS (item "l"): (NOTE: used in Tournament Game only!) If the "ACE"

rule is being employed, place an "X" in the box if the aircraft in question is being flown by an ACE.

ALTITUDE (items "m" and "n"): players are required to keep a record of the exact altitude at which their aircraft are flying at all times. Players accomplish this by placing the "Altitude Thousands" indicator counter in item "m" ("Thousands of Meters") and the "Altitude Hundreds" indicator in item "n" ("Hundreds of Meters"). As players dive and/or climb their aircraft, they should re-adjust the two counters to reflect changes in altitude.

An example: 4350 meter altitude would be indicated by placing the "Altitude-Thousands" counter pointed toward "4" and the "Altitude-Hundreds" counter pointed to "350." Remember, as with the "Speed" indicator, the altitude is indicated by the boxes above the counters, in the direction the arrows point towards, and NOT by the boxes that the counters physically occupy.

JAMMED GUNS (item "o"): (NOTE: used in Tournament Game only!) whenever a gun is jammed, the proper box is checked off to avoid confusion.

GAME RECORD SECTION (item "p"): This section should be filled out by players wishing to keep accurate records of victories and defeats. It can also be used in the Campaign Game or with certain of the Optional Rules.

Basic Game Rules

I. Sequence of Turns:

Richtshofen's War is played in turns. Each turn is divided into two segments with each segment being further divided into three phases. The exact sequence is outlined below:

FIRST SEGMENT:

- 1) Movement Phase: player "A" moves his aircraft.
- 2) Attack Phase: player "A" executes attacks, if any, by firing his machineguns.
- 3) Defensive Phase: player "B" returns defensive fire (if possible).

SECOND SEGMENT:

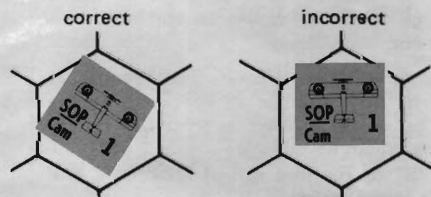
- 4) Movement Phase: player "B" moves his aircraft.
- 5) Attack Phase: player "B" executes his attacks, if any, by firing his machineguns.
- 6) Defensive Phase: player "A" returns defensive fire (if possible).

II. Movement:

GENERAL RULE:

Each aircraft has a certain movement capability which refers to the aircraft's ability to move through a certain number of hex sides. This capability is known as an aircraft's "movement allowance" which is stated in terms of a certain number of "movement points." The movement allowance of an aircraft on a particular turn is found in the SPEED section of the Aircraft Status Pad. Additionally, a player is allowed to change his altitude, up or down, within the limits of the dive, climb, and maximum altitude restrictions as found on the Aircraft Status Pad.

- 1) On each turn, an aircraft must expend its entire movement allowance either by expending one movement point for each hex a player's aircraft is moved into or by maneuvering his aircraft inside one hex.
- 2) A player's aircraft cannot remain stationary during his movement phase: he must expend his aircraft's full movement allowance each turn.
- 3) Two aircraft can occupy the same hex only if they are at different altitude levels.
- 4) Players may move their aircraft counters through other aircraft (friendly or enemy) at the same altitude level only if they do not remain there at the end of the movement phase.
- 5) The aircraft counter must be moved with the front of the aircraft diagram facing towards the direction of movement.
- 6) Aircraft counters must be facing forward toward one definite hex-side so that there can be no possible ambiguities of facing. If the facing is not clear, the opposing player has the option of correcting the facing to one of the two ambiguous hex sides.



- 7) Before players touch the aircraft counters or mapboard, they must announce any speed changes, dives, or climbs. Players who commence moving aircraft counters before announcing changes forfeit their right to make changes and must execute their movement phase at the same speed and altitude that they began the phase. Once a player has

completed his movement phase and taken his hand away from an aircraft counter, he may make no further adjustments.

- 8) Whenever an aircraft moves into such a position that its next move would force it off the mapboard edge, resolve the problem in one of the following two ways:

- a) **one-on-one** (involving no more than two aircraft on the mapboard): Making note of the relative position of the two aircraft, move them both towards the center of the mapboard, carefully preserving their same facing direction and distance apart.
- b) **multi-aircraft** (involving more than two aircraft on the mapboard): Allow the offending aircraft to turn in place without moving forward one hex in order to face a direction where it can continue normal movement. Penalize the offending aircraft one movement point PLUS the movement point cost of executing the turn maneuver.

- 9) Half-hexes are not part of the regular playing area of the mapboard.

- a) all aircraft start the game on the half-hexes on their respective mapboard edge. (except when otherwise specified in the individual scenario.)
- b) when aircraft enter half-hexes during play, they are considered to have exited from the mapboard and cannot return.
- c) half-hexes can never be used for normal movement. Players employ rule No.8 (above) whenever an aircraft cannot maneuver without involuntarily moving off of the mapboard.

- 10) Players must use one of the DUMMY counters to mark the initial position of their aircraft counters at the beginning of each movement phase. It remains in the initial position until the end of the movement phase to avoid disputes as to the legality of the move. It should then be placed with the aircraft counter in the new position to mark the starting position of the next movement phase.

III. Maneuver:

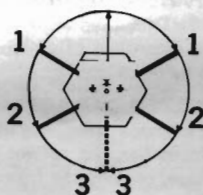
GENERAL RULE:

A player is allowed to maneuver his aircraft during his movement phase within the limits of his movement allowance, subject to the restrictions stated below:

- 1) The first hex a player moves his aircraft counter into at the beginning of his movement phase must be the hex directly in front of the aircraft in the direction the aircraft is facing.
- 2) After moving at least one hex forward the aircraft may continue in a straight line or turn in place a maximum of three hex sides, in one direction only, in any one hex by expending the appropriate movement points as given below:

- a) an aircraft may be turned one hex side in a particular hex by expending one movement point.
- b) an aircraft may be turned two hex sides in a particular hex by expending three movement points (one for the first hex side plus two more for the second = three m/p cost.)
- c) an aircraft may be turned through three hex sides in a particular hex by expending six movement points (three m/p for the first two hex sides plus 3 m/p for the third = six total m/p expended.)

Basic Game Maneuver Schedule



d) these movement point cost schedules do not include the cost of entering the hex where the turn maneuver is executed.

3) A player can never turn his aircraft through more than three hex sides in the same hex.

4) A player may make as many turn maneuvers or combinations of turn maneuvers and straight flight as he wishes as long as he has sufficient movement points to expend in doing so.

IV. Climbing

GENERAL RULE:

Each aircraft-type has a certain ability to gain altitude (climb) which is stated as the aircraft-type's MAXIMUM CLIMB ability which is given in meters per turn.

1) At the beginning of a player's movement phase, before actual movement of the aircraft counter, the player must state whether or not his aircraft is going to climb, and if so, how many meters (in increments of 50) the aircraft will climb.

2) In any one turn, an aircraft can climb only the maximum distance in meters as stated in the Aircraft Capabilities Chart.

3) The aircraft can gain less than the maximum, but must gain altitude in 50 meter "steps."

4) To climb, the player states he intends to climb, moves the appropriate altitude marker (s), then executes his move. There is no movement cost for climbing. The aircraft is assumed to be at its new altitude at the beginning of its movement phase.

5) Players keep track of altitude changes in the ALTITUDE SECTION of their Aircraft Status Pad.

V. Diving

GENERAL RULE:

Each aircraft-type has a certain ability to lose altitude (dive) which is stated as the aircraft-types' MAXIMUM DIVE ability which is given in meters per turn.

1) In any one movement phase, an aircraft can lose no more than the maximum altitude as stated on the Aircraft Capabilities Chart.

2) The aircraft can lose less than the maximum amount, but must lose altitude in 50 meter "steps."

3) At the beginning of a player's movement phase, before actual movement of his aircraft counter, the player must state whether or not

b) if the target aircraft is beyond the seven hex range it cannot be fired at.

3) Field-of-Fire:

a) the field-of-fire of *front-firing* machineguns consists of the single row of hexes through which the aircraft row counter is *facing*.

b) for aircraft mounting *rear-firing* machineguns, the field-of-fire extends out from the *rear* three hex sides. The rear machineguns can fire into all of the hexes contained within this area except for the single hex directly behind and adjacent to the firing aircraft (The "Blind" Spot).

c) note that the field-of-fire also extends above and below the altitude level of an aircraft. The "blind spot" for rear-firing machineguns exists ONLY at the same altitude or below the firing aircraft.

d) see *Examples of Play* section for examples of fields-of-fire.

4) Aircraft at different altitudes are restricted in their ability to fire at each other:

a) aircraft at different altitudes may only fire at each other if the *difference* in their altitudes is equal to or less than 200 meters.

b) If the altitude difference is greater than 200 meters there can be no firing.

c) EXCEPTION: Two aircraft occupying the same hex but at different altitudes *cannot* fire at each other regardless of the altitude difference.

5) Resolving Machinegun fire:

a) After having satisfied the two requirements for firing, players may then resolve their attacks.

b) Locate the name of the firing aircraft-type in one of the four right hand columns of the Target Damage Table, located on the inner box lid. (Note that all rear-firing machineguns for all planes are located in column C.)

c) Determine the range-to-target (in hexes) and locate that range within the firing aircraft's column.

d) Roll two dice and cross index the dice roll outcome with the range to determine the number of hits scored on the target aircraft.

e) When the Target Damage Table calls for hits to be scored, these hits are marked off on the target aircraft's ASP-ACCUMULATED DAMAGE section. Hits are marked off starting from the box on the left and progressing to the right.

f) The firing aircraft checks off one box on the appropriate (front or rear) AMMUNITION section of its ASP.

g) When all the ACCUMULATED DAMAGE boxes (to the left of and including the circled box) on an aircraft's Aircraft Status Pad are marked off, that aircraft is considered destroyed (i.e., shot down).

2) The aircraft can lose less than the maximum amount, but must lose altitude in 50 meter "steps."

3) At the beginning of a player's movement phase, before actual movement of his aircraft counter, the player must state whether or not his aircraft is going to dive, and if so, how many meters the aircraft will dive.

4) To dive, the player states he intends to dive, moves the appropriate altitude marker (s), then executes his move. There is no movement cost for diving.

5) Dives are executed in the first hex that the aircraft enters at the beginning of its movement phase.

6) NOTE: an aircraft may not dive in the same movement phase in which it climbs. It can only do one or the other.

VI. Speed

GENERAL RULE:

The speed of individual aircraft varies by their maximum and minimum possible speeds (inherent in the aircraft's design) and their current speed (dependent upon the decisions of the players.)

1) In any one turn, a player may increase his aircraft's speed by one or two movement points, or decrease his speed by one or two movement points.

2) Increases or decreases in speed must be announced at the beginning of a player's movement phase before any movement of the aircraft counter takes place. The SPEED indicator on the AIRCRAFT STATUS PAD must be adjusted accordingly.

3) An aircraft's speed may never be greater than its maximum possible speed nor slower than the minimum speed as stated on the ACC.

VII. Combat

GENERAL RULE:

During the attack phase, one player attempts to inflict damage upon the other player's aircraft with his machineguns. A player may fire his aircraft's machineguns at another aircraft only when field-of-fire, range, and altitude difference requirements have been satisfied:

1) To fire at a target, two basic conditions must be met:

a) the target aircraft must be within a seven hex range of the firing aircraft.

b) the target aircraft must be within the firing aircraft's field-of-fire.

2) Range:

a) the range of all aircraft machineguns in Richthofen's War is seven hexes.

g) When all the ACCUMULATED DAMAGE boxes (to the left of and including the circled box) on an aircraft's Aircraft Status Pad are marked off, that aircraft is considered destroyed (i.e., shot down).

6) The defender may return fire during the defensive fire phase if the attacker is within the defender's field-of-fire and the defender has ammunition remaining to fire with. The same procedure as outlined above is followed.

7) NOTE: it is NOT necessary for the attacker to have actually fired on the defender for the defender to return fire. In some instances, rear-firing machineguns will be able to fire on targets during a player's attack phase. The rules as worded are not intended to exclude the rear-firing machinegun from being used in an offensive manner. Generally speaking, there are no restrictions as to what machineguns can fire in which phase at what target.

In multi-aircraft scenarios, a situation could arise in which front-firing machineguns fire at a target aircraft in the defensive fire phase while the target aircraft never fired on that particular aircraft during its attack phase. This is perfectly legal.

8) When the AMMUNITION indicator on the ASP reaches 'O' a player may no longer fire that particular machinegun. The other machinegun (front or rear), if any, may still fire as long as it has ammunition.

9) Since in reality the fire of both players is simultaneous, damage to the defender does not affect his aircraft until after the defensive phase is completed.

VIII. Ammunition and Rate of Fire

1) In the Basic Game, both players have a set supply of ammunition: each player can fire each type of machinegun (front or rear-firing) 12 times in one game before the ammunition supply is exhausted.

2) In the Basic Game, a player may only fire his machineguns ONCE per turn.

a) if a player fires his machineguns in his attack phase, he cannot fire them in his subsequent defensive phase. If he fires his machineguns in his defensive phase, he cannot fire them during his subsequent attack phase.

b) if a player has front-firing and rear-firing machineguns, they are considered separate and independent machineguns for this rule: firing the front machinegun does not exclude a player from firing the rear machinegun in the very next phase, or vice-versa.

Tournament Game Rules

After mastering the Basic Game, players may advance to the Tournament Game which is an extension of the Basic Game that includes rules for more realism and complexity. All Basic Game rules apply unless otherwise stated.

I. Maneuver

In the Basic Game, all aircraft types are given identical maneuver schedules for simplicity. However, in the Tournament Game, there are five different schedules for various types of aircraft as explained below:

1) In preparing for play, players refer to the Aircraft Capabilities Chart under column 11, "Maneuver Schedule" to locate the appropriate schedule for the type of aircraft they are flying.

2) Players fill in the "MANEUVER SCHEDULE" section (item "j") of their Aircraft Status Pad for quick reference.

II. Climbing

When an aircraft gains altitude, there is a corresponding loss of forward movement. Therefore, directly after a player announces that his aircraft intends to climb in a particular movement phase, he must subtract movement points from his movement allowance for that movement phase:

1) A player must subtract one movement point from his aircraft's movement allowance for every 100 meters or less that it climbs.

2) Movement point costs for climbing are subtracted *before* the aircraft counter is actually moved by way of a simple subtraction process:

3) For example, a NIEU/17 with a speed of "9" intends to climb 150 meters; therefore he has "7" movement points available for horizontal movement since he expends "2" movement points to climb 150 meters. Its SPEED indicator would still point towards "9", however.

4) An aircraft is further limited in climbing to the extent that points subtracted for climbing may never reduce an aircraft's available movement points below its minimum speed. For example, a FOK/drl (minimum speed =3), traveling at a speed of "5" could not climb 300 meters because it would then have only two movement points available for movement.

III. Diving

In the Basic Game, diving was over-simplified for ease of play. For the Tournament Game, the rules have been changed and expanded. Note the differences carefully!

1) Unlike the Basic Game, where the entire dive was executed in one hex, only 100 meters of any dive can be executed in one hex. A dive of three hundred meters, for example, would have to be executed in three adjacent hexes. These hexes are called "dive hexes."

2) Dives can only be executed once per turn:

i.e., a dive of three hundred meters must be executed in three adjacent hexes (not necessarily the first three) one after the other. It could NOT be executed by diving 100 meters, traveling two hexes horizontally, then diving two hundred more meters.

3) For every 100 meters an aircraft dives, it gains one movement point. Dives of less than 100 meters still gain one movement point. (Thus a dive of 50 meters would gain one movement point and a dive of 250 meters would gain three movement points.) Movement points gained by diving can only be used after the entire dive has been executed (in the same movement phase).

4) Additionally, subtract "1" m/p from the TOTAL cost of turn maneuvers executed within each "dive hex." That is, if it normally costs "5" m/p to turn three hex sides within one hex in level flight, in a "dive hex" it would cost only "4" movement points to turn three hex sides.

5) Note that movement points gained in diving do not cause any increase in the aircraft's SPEED indicator: the SPEED indicator would be at the same position at the end of a dive as it was in the beginning.

IV. Dive Speed

1) Diving places considerable strain on an aircraft. To compensate for this, the maximum speed at which an aircraft can dive is found under column 9 MAXIMUM DIVE SPEED in the Aircraft Capabilities Chart. He can dive at less than maximum dive speed so long as he does not reduce his current speed to less than minimum.

2) If an aircraft is traveling too fast to reduce speed to maximum dive speed (at the rate of

two movement points per turn) then the player simply moves his speed counter to MAXIMUM DIVE SPEED and executes his dive. There is no penalty for exceeding the speed reduction limit in this case.

3) OVERDIVE: The maximum possible dive per turn is given on the Aircraft Capabilities Chart (column No. 8). This is the maximum vertical distance an aircraft can safely dive. However, it is possible to exceed the safety limits of the aircraft and dive an even greater vertical distance. Of course, the chances of shedding a wing surface and consequently crashing are also increased. To simulate this reckless, but sometimes lifesaving, maneuver employ the following rules:

a) in any movement phase, an aircraft may exceed its maximum dive limit by 200 meters (or less in steps of 50 meters) but he must roll one die to see if he survives the overdrive:

b) a roll of "1" or "2" means the aircraft has broken up and the pilot has perished. Any other roll means he has successfully completed the overdrive.

c) when overdiving, the aircraft MUST employ the MAXIMUM OVERDIVE SPEED (column No. 10 on the ACC) instead of the regular MAXIMUM DIVE SPEED unless, due to accumulated damage, its maximum possible speed is less than the MAXIMUM OVERDIVE SPEED.

d) a player may choose to overdrive once per turn, as many times in a game as he wishes, but he must roll the die each time.

V. Combat

Note the additional rules and requirements for firing in the Tournament Game:

1) **SIGHTING:** In addition to the two previously stated requirements for firing at a target a third requirement, **SIGHTING**, must also be satisfied:

a) in order to fire at a target, an aircraft must expend its last two movement points with the target aircraft in its field-of-fire.

b) *defensively*, in order to fire, the attacking target-aircraft must have expended its last two movement points in the field-of-fire of the aircraft firing in the defensive phase.

c) movement points expended by the attacking aircraft in turning maneuvers *do not* count towards satisfying the requirements for *attacking* aircraft, but **DO** count for defensive machine guns if the movement points were expended in that machine gun's field-of-fire.

d) in the attack phase, for all rear-firing machine guns (and optional rule machine guns for FE/2) movement points expended in turning maneuvers **DO** count towards the sighting requirements **IF** the target aircraft was in the field-of-fire before the turning maneuver began.

e) to avoid confusion, players should announce "sighted" when attacking aircraft or target-aircraft satisfy the requirements.

2) **TARGET-ALTITUDE DIFFERENCE:** In the Basic Game, firing at aircraft flying at an altitude greater than 200 meters higher or lower was not permitted. To better reflect the actual geometry involved employ the following rules:

a) the range-to-target is calculated as in the Basic Game, but in addition, every 100 meters or less in altitude difference equals

one hex added to the range to a maximum altitude difference of 250 meters.

b) for example: aircraft "A" fires on aircraft "B" at a range of two hexes. Aircraft "A" is flying at 6500 meters and aircraft "B" at 6250 meters, for a 250 meter difference in altitude. Therefore the **REAL** range-to-target would be 5 hexes and not 2 hexes. (3 hexes added to range for 250 meter altitude difference.)

c) aircraft at greater than 250 meters altitude difference cannot be fired upon.

3) **FIELD-OF-FIRE** for a rear-firing gun does not extend below that particular aircraft's altitude level in the row of hexes directly to the rear of that aircraft. Example: an aircraft with a rear machine gun flying at 5500 meters could not fire on an aircraft flying directly behind it, 4 hexes away at 5450 meters, with the rear machine gun. (see **Examples of Play** section for another example.)

4) **CRITICAL HITS:** Critical Hits (hits that by chance strike a particularly vital part of an aircraft) can occur any time an aircraft takes fire from enemy aircraft or anti-aircraft guns. To simulate this possibility, incorporate the Critical Hit Table, located on the inner box lid, as part of the results from the Target Damage Table. On the Target Damage Table, there are asterisks indicating critical hits in certain outcomes; whenever an outcome is rolled that calls for a critical hit, the attacker rolls two dice to determine the effects of the critical hit as stated on the chart. Critical hit damage takes effect immediately.

5) **GLIDING:** When called for on the Critical Hit Table, a player must attempt to glide his aircraft in a "deadstick" fashion off his own

side of the board under these conditions:

a) the aircraft can no longer fire its forward-firing machine guns. Rear machine guns, if any, may still fire normally.

b) the aircraft cannot gain speed: speed immediately reverts to the aircraft's minimum speed.

c) the aircraft must lose 100m. altitude (with no dive bonus) for every turn it is in the air. Dive maneuvers, however, are executed normally, ignoring the 100m. glide loss.

d) turning maneuvers are limited to one hex side for every hex traveled through.

e) once in a glide, accumulated damage can never force an aircraft below its minimum speed.

f) once a player force-lands on the mapboard or glides off one of the four sides of the mapboard, he is removed from the game: if he exited from a mapboard hex in friendly territory (i.e., behind his respective trench line) he is not considered shot down for victory purposes. If he exits from a hex in enemy territory (which includes his own trench line hex-row and

No-Man's Land) he is considered shot down for victory purposes. If he force-lands on the mapboard he is considered shot down, regardless of which side of the trench line he lands on.

6) ACCUMULATED DAMAGE: In the Basic Game, severe damage does not decrease an aircraft's performance. To reflect the effects of severe damage, employ the following set of rules:

a) if an aircraft suffers more than 50% damage (50% of its damage boxes have been marked off, rounding off in favor of the aircraft; i.e., 50% of 11 boxes = 6 boxes) that aircraft must subtract one movement point off its maximum speed, and lose 50 meters off of its MAXIMUM CLIMB capability for every hit it sustains after passing the 50% damage point.

b) **EXAMPLE:** a SPAD/13 which already has 7 damage boxes out of 14 marked off and flying at a maximum speed of 11, is attacked and suffers four more hits for a total of 11 damage boxes marked off. Its speed is immediately reduced by 4 movement points to 7 hexes per turn, and its MAXIMUM CLIMB capability is reduced

Design Credit

Game Design and Research: Randall C. Reed (staff)

Components Design: Randall C. Reed (staff), Donald Greenwood (staff), Thomas N. Shaw (staff)

Aircraft Profiles, Mapboard, Box Art and

Design: W. Scott Moores, Thomas N. Shaw (staff) pilots of Flying Circus Aerodrome.

Playtesting: Steve Smith, Russell Vane, Interest Group Baltimore.

Printing: Monarch Services, Colonial Composition (Baltimore, Maryland)

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to zero for the remainder of the game.

c) reductions of speed and climb through accumulated damage are permanent: once reduced, speed and climb can never be brought up to their initial maximums.

d) speed can never be reduced below an aircraft's minimum speed by accumulated damage. If accumulated damage would force an aircraft below minimum speed, the aircraft must go into an immediate glide.

ACE STATUS: as called for in the different scenarios, or at the players' discretion, any aircraft can be designated as being flown by an ACE. When so designated, aircraft have these improved capabilities:

a) when ATTACKING, the ACE adds "1" to the dice roll on all attacks resolved on the Target Damage Table: if he rolls a "7" with the dice, this would become an "8" on the Target Damage Table.

b) when the ACE is flying the target-aircraft, "1" is subtracted from the dice roll of the attacker. This does NOT apply to defensive fire, in the defensive phase, directed at an ACE. When two ACES are involved in an attack with each other, there are no additions or subtractions to the dice roll.

c) Rear gunners, when firing at a target-aircraft in the attack phase, get no extra dice benefit if their aircraft is piloted by an ACE. The Target-aircraft, of course, would get the benefit of the dice-roll subtraction if it was piloted by an ACE.

d) indicate that an aircraft is being flown by an ACE by marking item "1" on the ASP.

NOTE: this rule is further expanded under the OPTIONAL RULES section.

8) AMMUNITION SUPPLY: unlike the Basic Game, different aircraft machineguns have different ammunition capacities. The ammunition supplies for the various aircraft are found in column No. 4 and No. 5 on the Aircraft Capabilities Chart:

a) every time a machinegun is fired, one of the boxes in the AMMUNITION SUPPLY section of the Aircraft Status Pad must be marked off.

b) the first number on the chart represents the capacity for the front-firing guns (if any) and the second number represents the capacity for the rear-firing guns (if any).

9) JAMMING: a player may elect to fire his machineguns in two successive firing phases (attack phase, then defensive phase or vice-versa) instead of in the normal, once per turn, fashion. However, by firing his machineguns twice in a row, he risks permanently jamming his machineguns:

a) if a player fires his machineguns two fire phases in succession, he must roll one die to see if he has jammed his guns: a die roll of "1" or "2" means that his guns are jammed and may not be fired for the remainder of the game.

b) jamming is permanent. Front-firing and rear-firing guns are considered separate and independent weapons for jamming purposes.

c) to avoid confusion, players should indicate jammed machineguns by marking off the JAMMED box (item "o") on the ASP whenever it occurs.

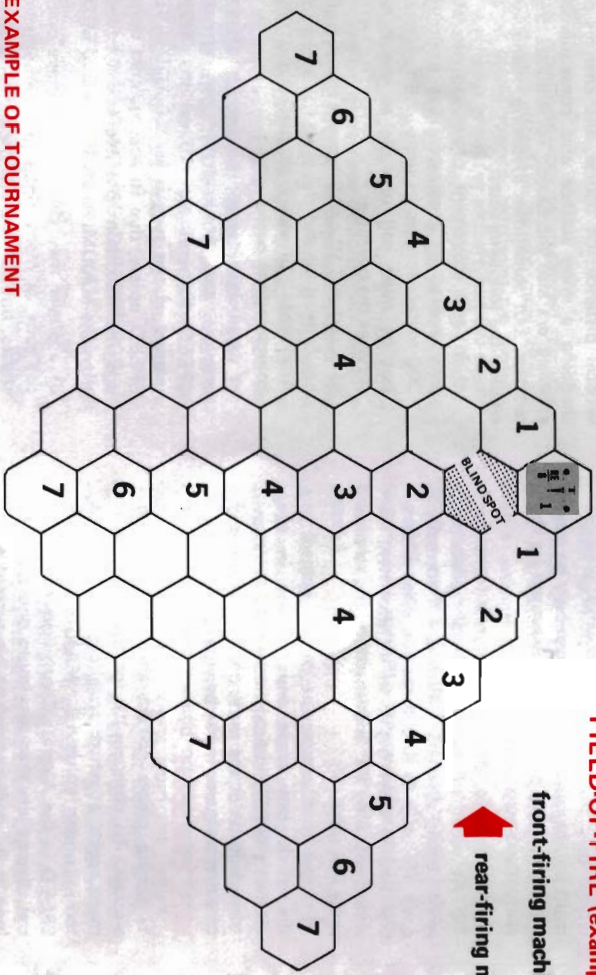
AIRCRAFT CAPABILITIES CHART

KEY: Uses:	F = fighter missions	(1) = maximum speed (hexes/turn)	(7) = maximum climb (meters/turn)
	B = bombing missions	(2) = minimum speed (hexes/turn)	(8) = maximum dive (meters/turn)
	R = photo-recon missions	(3) = accumulated damage factor	(9) = maximum dive speed (hexes/turn)
	T = trench-strafing missions	(4) = ammo supply/front	(10) = maximum override speed
	A = artillery-spotting missions	(5) = ammo supply/rear	(11) = maneuver schedule
		(6) = maximum altitude (meters)	

AIRCRAFT	DESIGNATION	USES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Armstrong-Whitworth	FK/8	B, R, A	8	3	10	none	10	3950	50	200	5	6	A
Bristol	BR/12b	F, B, R, T, A	9	4	13	10	10	6100	200	450	7	8	C
DeHavilland 2	DH/2	F, B, T	7	3	7	6	none	4250	100	250	3	4	B
DeHavilland 4	DH/4	B, R, T, A	8	4	12	6	10	5300	150	250	6	7	B
DeHavilland 5	DH/5	F, B, T	9	4	11	10	none	4900	150	350	7	8	B
Hanriot 1	HD/1	F, B, T	9	4	11	10	none	6100	200	400	7	8	C
Nieuport 11	NIEU/11	F, B, T	8	4	6	6	none	4600	100	250	4	5	B
Nieuport 12	NIEU/12	B, R, T, A	8	4	8	6	6	5500	50	250	4	5	B
Nieuport 17	NIEU/17	F, T, B	9	4	9	6	none	4400	200	250	6	7	C
Nieuport 28	NIEU/28	F, T, B	11	4	10	10	none	6100	200	350	6	7	D
RAF Be-2	BE/2	B, R, A	7	3	11	none	6	3350	50	200	5	6	A
RAF Fe-2	FE/2	F, B, R, T, A	7	3	7	6	none	5150	100	250	5	6	B
RAF Re-8	RE/8	B, R, T, A	8	4	10	6	10	4100	100	250	6	7	A
RAF Se-5a	SE/5a	F, B, T	11	4	13	10	none	6700	200	450	9	10	C
Sopwith 1½-Strutter	SOP/1½	B, R, T, A	8	4	11	6	10	4700	100	250	5	7	B
Sopwith Dolphin	SOP/Dol	F, T, B	10	4	12	10	none	6400	250	450	7	8	C
Sopwith Camel	SOP/Cam	F, B, T	10	4	12	10	none	5800	250	450	8	9	E
Sopwith Pup	SOP/Pup	F, B, T	9	3	10	10	none	5900	150	350	7	8	C
Sopwith Triplane	SOP/Tri	F, B, T	10	3	10	10	none	6250	200	400	8	9	D
Sopwith Snipe	SOP/Snipe	F, B, T	10	4	14	10	none	6000	250	500	8	9	D
SPAD 7	SPAD/7	F, B, T	10	4	12	10	none	5500	150	450	8	9	B
SPAD 13	SPAD/13	F, B, T	11	4	14	10	none	6700	200	550	9	10	C
Albatros C-3	ALB/c3	B, R, T, A	7	3	11	10	12	3800	50	200	6	7	A
Albatros C-5	ALB/c5	B, R, T, A	8	3	11	10	12	4100	50	200	6	7	B
Albatros D-2	ALB/d2	F, B, T	8	4	12	12	none	5300	150	350	6	7	B
Albatros D-3	ALB/d3	F, B, T	9	4	11	12	none	5500	150	350	6	7	C
Albatros D-5	ALB/d5	F, B, T	9	4	12	12	none	6250	150	350	7	8	C
Albatros D-5a	ALB/d5a	F, B, T	10	4	12	12	none	6250	200	350	7	8	C
Fokker Dr-1	FOK/dr1	F, B, T	9	3	10	12	none	6000	300	350	5	6	E
Fokker D-7	FOK/d7	F, B, T	10	4	14	12	none	6100	250	500	8	9	D
Halberstadt D-3	HALB/d3	F, B, T	8	4	11	10	none	5200	100	350	5	6	B
LFG Roland C-2	ROL/c2	B, R, T, A	8	4	15	10	12	4000	100	250	5	6	A
Pfalz D-3	PFAL/d3	F, B, T	8	4	12	12	none	5200	100	500	6	7	B
Pfalz D-3a	PFAL/d3a	F, B, T	9	4	12	12	none	5200	150	500	6	7	B

The *Aircraft Capabilities Chart* (above) lists the data for all aircraft-types included in the game. Refer to the Prepare for Play section of the rules when transferring the information from the *Aircraft Capabilities Chart* on to the *Aircraft Status Pad*.

Examples of Play



FIELD-OF-FIRE (example):

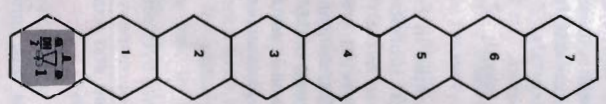
front-firing machineguns



rear-firing machineguns



EXAMPLE OF TOURNAMENT
GAME AIRCRAFT
STATUS PAD



Optional Rule — Deflection

Lower Altitude — Blind Spot

altitude = 3500 m.

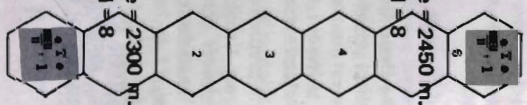


altitude = 3450 m.

Note that even though the NIEU/17 is four hexes away, the ROL/c2 cannot return fire because the NIEU/17 is DIRECTLY behind the ROL/c2 at a LOWER altitude.

Tournament Game Climb

altitude = 2450 m.
speed = 8



altitude = 2300 m.
speed = 8

Movement points are expended BEFORE the climb is actually executed. Note that even though the aircraft only traveled six hexes, the SPEED indicator would still show a speed = 8.

Aircraft Status Pad

(a) Speed (in movement points)

2	3	4	5	6	7	Current Speed	9	10	11
---	---	---	---	---	---	---------------	---	----	----

Aircraft
BR/f2b/#1
Type / Number

(b) Accumulated Damage

X	X	X	X	X	X	X	X	8	9	10	11	12	13	14	15	16
--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	---	---	----	----	----	----	----	----	----

(c) Ammunition Supply (Front)

0	1	2	3	4	5	6	7	X	X	10	11	12	<input type="checkbox"/>
---	---	---	---	---	---	---	---	--------------	--------------	----	----	----	--------------------------

Jammed

(d) Ammunition Supply (Rear)

0	1	2	3	4	5	6	7	8	9	10	11	12	<input type="checkbox"/>
---	---	---	---	---	---	---	---	---	---	----	----	----	--------------------------

Jammed

Altitude

(m)

8
7
6
5
4
3
2
1
0

(n)

Return Counter to Zero

950
900
850
800
750
700
650
600
550
500



350
300
250
200
150
100
50
0



Thousands of Meters

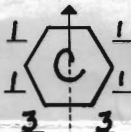
Hundreds of Meters

(e) Maximum Altitude

(f) Maximum Climb Per Turn

(g) Maximum Dive

(j) Maneuver Schedule



(Tournament/Optional Rules Section)

(h) Maximum Dive Speed

(k) Critical Hits Taken: (record number from chart)

(i) Maximum Overdive Speed

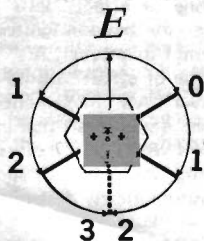
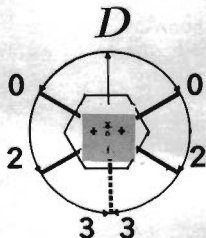
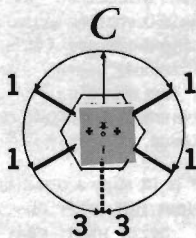
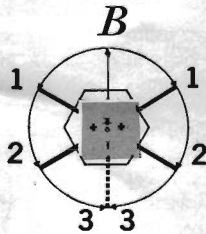
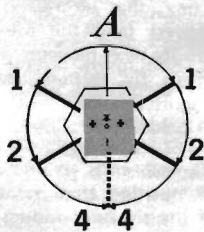
(l) Check here if aircraft flown by ACE:

(p) Name P. Haylock Date 2/2/72

Opponent M. Valley Opponent's Aircraft FOK/DRI

Victories This Game _____ Career Total 2

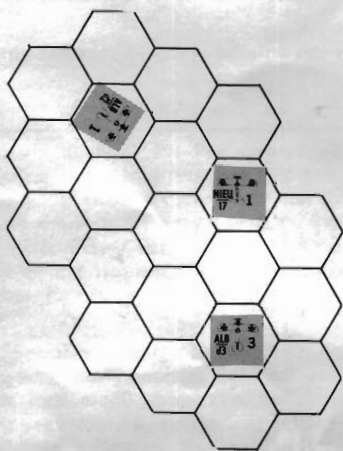
Maneuver Schedule Chart



The above chart illustrates the movement point costs for turning the aircraft counter in place in one hex. The numbers next to each hex side refer to the number of movement points which must be expended for EACH hex side. That is, the movement point costs are ADDITIVE NOT CUMULATIVE. For example, for an aircraft using schedule 'A', it costs 1 m/p to turn one hex side; to turn two

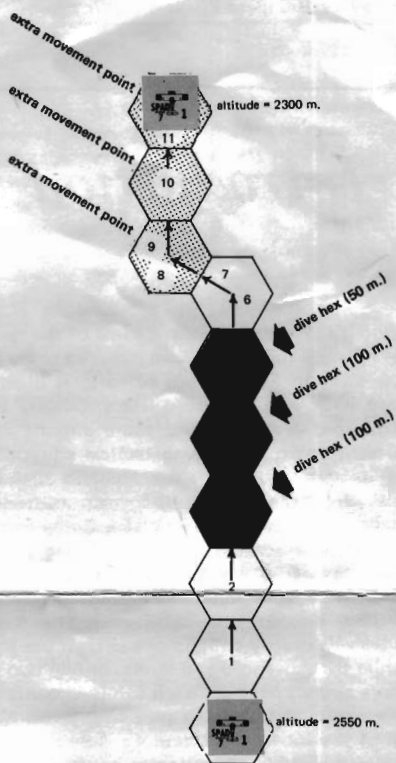
hex sides, it costs 1 m/p (for the first) PLUS 2 m/p's (for the second) for a total of THREE movement points expended to turn two hex sides. REMEMBER: aircraft may only turn in ONE direction any one particular hex and the movement point costs above are additive for each hex side the aircraft turns through.

Optional Rule – Deflection



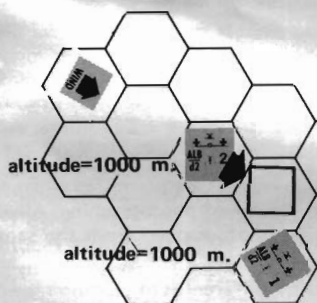
Note that even though the range-to-target (NIEU/17) is the same for both the ALB/d2 and the ALB/d3, the ALB/d2 must subtract '1' from the dice roll because of the angle of deflection.

Tournament Game Dive



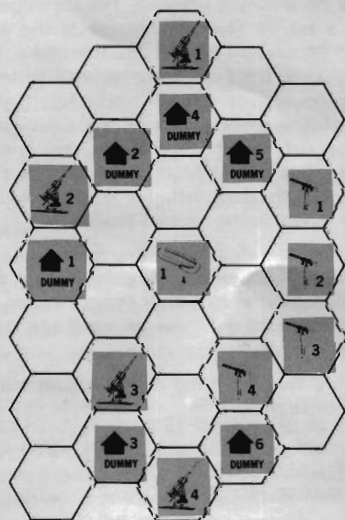
Tournament Game dive showing a SPAD/7 speed = 8, diving 250 meters thereby gaining three extra movement points. Note that the extra movement points are not expended until after the aircraft has completed the dive (in the dive hexes).

Optional Rule – Prevailing Winds



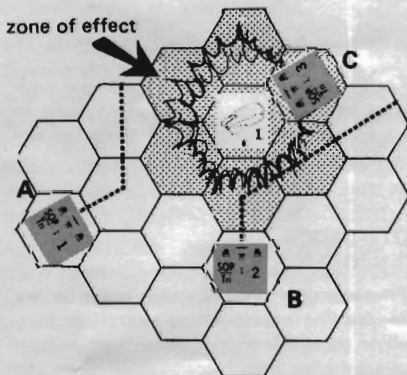
At the end of a turn, the die roll for prevailing winds = '1', therefore the wind is towards the southeast. since ALB/d2 No. 2 is at 1000 m., it is moved one hex. Since ALB/d2 No. 1 would be forced to move off of the mapboard involuntarily, the owning player opts to ignore the effects of wind.

Balloon Defense



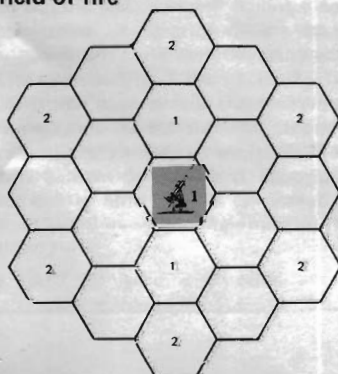
typical positioning of balloon defenses (shown un-inverted)

Balloon – Spontaneous Ignition



If balloon spontaneously ignites: aircraft 'A' (range = 3 hexes) would not be affected if it does not enter Zone of Effect; aircraft 'B' (range = 2 hexes) would have to roll one die to see if it survives at the end of it's movement phase because it cannot avoid the Zone of Effect due to it's facing; aircraft 'C' (range = 1 hex) would be automatically destroyed because it must enter the ignited balloon's hex during it's next movement phase.

AA field-of-fire



MG field-of-fire

