

Dogfite!

"Aerial Craps"

Simplified / Introductory version of
Dogfight! - Rules for WW1 aerial combat with miniatures

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INTRODUCTION

This basic, introductory version of my WW1 aircombat game is being offered as a means for players to give the system / idea a try with the least expenditure of material and time. The games that result may not be the prettiest (or contain the depth / details desired in some facets), but they should give players exposure to the key features and a sense of the spirit / mood / purpose of the game. If playing this makes you go "This is sort of neat, but I wish it included (or should take into account) _____", then I invite you to check out the "real" rules to see if they provide the answers to your needs. I've tried to remove what I thought were dispensible pieces, but could easily have cut too deep --or not deep enough: My initial reaction to what I ended up with after editing was that this is way too long. The odd concepts of the game, however, are unfamiliar enough, IMO, that they require this level of description / elaboration. Once the basic mechanics are understood, the numbers/ tables contained in the Reference Card (Appendix B) should suffice to run / play a game.

GAME OBJECTIVE

Rather than confront players with the challenges found in most aircombat games --those involving the technical, mechanical movement / positioning of the aircraft-- these rules aim to present gamers with a touch of the uncertainty, risk, and fear associated with sitting at the controls of a fragile, flammable collection of sticks and cloth a mile or more above the trenches while someone in a similar contraption tries to put bullet holes in you: the calm, predictable movement of chess pieces is the antithesis of the odds-driven risk of a game of craps that lies at the heart of this design.

Basically, this game approaches aircombat the same way most skirmish / RPG games do with hand-to-hand combat: players control the general movement of their figures / troops, but the details of that movement --as well as those of the close-in-action of combat-- are not controlled by players and therefore not displayed by the figures on the tabletop. The game has a mood-based objective that tries to put players in the heads of their warrior-alter-egos: concerned with and deciding *WHAT* to do, rather than in the bodies concerned with and deciding *HOW* to do it.

A reading of the notes found in the "Design Blather" download is recommended if a more detailed description of my thinking is desired / needed to understand the basis for the game. NOTE: In this version, the Maneuver Test of the regular rules is termed the Move / Maneuver Bet, and the Combat Value is termed the Edge --this is in keeping with the attempt to provide a gambling framework for the game-concept that is assumed / hoped to be a common frame of reference.

The rules are arranged / presented in Turn-Sequence order. The actual, need-to-read rules are in plain type. Sections / paragraphs that provide a general description or definition or example of a rule's subject are *in italics*. Sections / paragraphs that provide design notes or theory or play tips are highlighted in grey.

Appendix A contains a few notes on the required pieces-parts to play the game: The original notes given in the "Design Blather" download can be viewed as well for context. Players are encouraged to slap together whatever gaming tools they have on hand as temporary aides that are good enough to give the game a try.

TARGETING / EDGE ADJUSTMENT

TARGETING: *Targeting represents the pilot devoting his attention to the actions of a particular aircraft for that turn and allows for the gaining (and/or accumulation) of an edge over an opponent via position and maneuvering that could be used to attack and/or affect movement order --this latter effect (on movement order) can be applied to friendly aircraft if a player desires to react to the movement of an ally by targeting them (see "TARGETING FRIENDLY AIRCRAFT" below).*

Players may declare a target aircraft --this is optional: there is no requirement to declare a target. Only one target may be chosen / held by each aircraft on a given turn.

Choosing a target at the beginning of each turn is a very important step in order to have an effect in combat because gaining an edge (and/or firing) may ONLY be done on an aircraft that has been logged as that turn's target --ie: a specific enemy must be chosen so as to have any position / maneuver advantages applied or to attack in any given turn.

EDGE ADJUSTMENT: *The edge is the numerical combat advantage held by an aircraft over another. Players that have chosen a target will track* their edge during the course of the coming turn: these additions / subtractions will result from carryover, position, and movement. The bonuses for carryover and position are handled in this step.*

An aircraft's edge is target specific --if/when an aircraft declares a new target, its edge is reset to zero. EXCEPTION: When a new target is chosen that has an existing edge on the aircraft then the aircraft's new edge is the negative of the target's edge --this is to reflect the player beginning the turn at a handicap relative to the new target that already has an accumulated edge.

* This may be done in a separate log, though it is best done in a manner open to public view (such as on or with the stand itself) to avoid the drag on play that would result from players having to inquire of one another what their current edges are.

EDGE ADJUSTMENT - CARRYOVER: *If the same target is kept, an aircraft may retain some or all of its existing edge.*

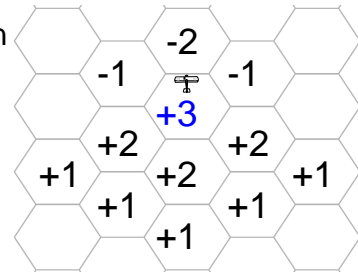
The existing edge (if any) is reduced by:

- RANGE*: Divide current edge by the range in hexes.
- FACING: No carryover allowed if the target is behind player's aircraft.

*Add one to range for every two levels of altitude difference between aircraft.

EDGE ADJUSTMENT - POSITION: Based on the relative position of an aircraft to its target* (denoted by the aircraft in the diagram) the appropriate bonus is noted. The numbered hexes indicate the bonus gained by the targeting aircraft if it occupies that hex.

Exception: If in same hex as target (blue +3) the bonus is only logged if targeting aircraft is in middle of the hex.



* NOTE: Aircraft positioned in the middle of a hex have no facing, and therefore no "behind". No position bonus may be gained if targeting such an aircraft.

TARGETING (cont'd)

TARGETING FRIENDLY AIRCRAFT: *Targeting a friendly aircraft allows a pilot to follow a leader in formation* --this serves to speed play at the beginning of a game by allowing players to move multiple aircraft at the same time.

FORMATION FLYING: A friendly aircraft (in the same hex and altitude) may be logged as that turn's target. The targeting aircraft is moved at the same time (and in the same manner) as its leader rather than when dictated by its own initiative roll. The movement-point die roll made by the leader applies to all aircraft in the formation IF they are at the same speed: Any aircraft in the formation with different speeds must roll their own movement-point dice. Also, any bets or other performance checks (such as power / drag rolls) must be made by each individual aircraft. Also, if the leader uses any Aerobatic Points during his move, all pilots following must apply a penalty of twice the number of those points used to their bets when rolling to succeed / maintain formation.

INITIATIVE

Movement order is sequential, and is determined for each turn by dice roll and targeting status / relationships.

Each player / aircraft rolls 1d10 (0-9). This number is then modified by pilot experience and aircraft speed (1 = **-2**, 2 = **-1**, 3 - 4 = **0**, 5 - 6 = **+1**, 7 - 8 = **+2**, 9+ = **+3**). Ties go (in order) to the higher experience, higher altitude, and higher speed. If still tied, resolve by a simple d6 roll-off.

First to move (in low to high order) are spinning aircraft. Then, aircraft that are targeting move in initiative order (followed immediately by any aircraft that are targeting them). Lastly, aircraft that have no declared target move in order of initiative.

EDGE ADJUSTMENT TO INITIATIVE (TAILING): If an aircraft's target has declared a target of its own, the targeting aircraft's entire edge may be added to its initiative roll; if the aircraft's target has no target of its own, then only half of the targeting aircraft's edge (rounded up) may be added to its initiative roll. If the adjusted initiative is greater than that of the target's, then the aircraft moves immediately after the target as dictated above.

NOTE: No edge bonus of the target on another is used in the comparison. The tailing aircraft need only exceed the normal, posted initiative (d10 roll modified by experience and speed) of its target.

To avoid confusion, players should not declare tailing increases until it is their turn to move, when they would then move their initiative indicator to show that of their target.

This rule may create "chains" of tailing in which each aircraft is set to follow its target. Should a circle occur (in which each aircraft follows another in a continuous loop) a simple d6 roll-off should be used to determine which aircraft will go first: then each of the others will follow in tailing order.

The tailing rule has no effect on the initiative of aircraft whose original rolls (plus experience and speed modification) exceed that of their targets: they are moved immediately after their target as dictated at the top of the page.

MOVEMENT

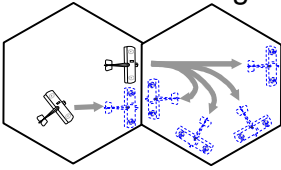
HORIZONTAL MOVEMENT - HEXES: Models moving through hexes are placed at the edge of a hex facing out, and models moving into (or staying in) a hex are placed in the middle of a hex.

VERTICAL MOVEMENT - LEVELS: Models will be either at an altitude level or leaving it (shown either climbing / diving).

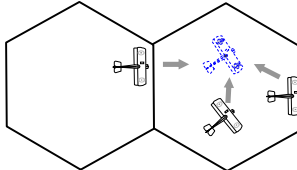
IMPORTANT NOTE: The model position on the table is abstract and does not indicate the exact position of an aircraft. Placement in a hex (either edge or middle) indicates only that the aircraft is within effective combat range of other aircraft in the hex --and conversely: outside effective combat range of all aircraft not in that hex. A model placed at the edge of a hex represents the aircraft moving through the space in a particular direction --it could be anywhere within the space. A model in the middle of a hex represents an aircraft maneuvering within the space and having no particular location or facing (horizontal or vertical) at any given moment. The position of the model within an altitude level is similar to that described for position within a hex: No specific location of the aircraft is implied --only that it is within that engagement area.

DIAGRAMS OF MODEL POSITION / MOVEMENT:

Movement to edge:



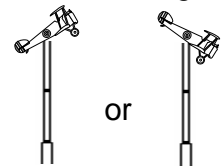
Movement to middle:



Aircraft at a level:



Aircraft leaving a level:



Each of the moves shown above costs one Movement Point (MP). A point of movement will allow an aircraft to move one hex (*edge to edge*) or move from / to the middle of a hex (*edge to in the middle*, *in the middle to in the middle*, or *in the middle to edge*).

FACING WHEN LEAVING THE MIDDLE OF A HEX: Since aircraft in the middle of a hex have no facing, players may pick any edge of the hex as the exit side without making a bet.

EDGE RECORDING: During movement a targeting aircraft will add bonuses gained, and aircraft who are targeting it will subtract the bonus from their edge. If current aircraft has a different target of its own, then one-quarter of any bonus gained by it (rounded up) is subtracted. If current aircraft has no target, then one-half of any bonus gained by it (rounded up) is subtracted.

The maximum edge amount that can be held at the end of the movement phase is "10".

MOVEMENT (cont'd)

MOVEMENT POINTS (MP): Speed points are separate from Movement Points. An aircraft's move is done based on its starting speed, though may be modified by maneuvering (see "AEROBATICS").

Speed changes from maneuvering and/or power / drag rolls are applied at the end of the turn.

An aircraft's speed is separate from (though it affects) Movement Points --ie: a model with a current speed of "6" will not move six hexes: Instead, the player will roll (1d6) each turn to determine how many MP will be available to the aircraft (see "VARIABLE MOVEMENT POINTS"). The number of MP available will range from zero to two.

For each Movement Point available / used, an aircraft will move one hex straight ahead, or the player may attempt to change its facing to move to an edge other than the one straight ahead or attempt to move to or remain in the middle of a hex (see "FACING CHANGES / STAY-IN-HEX").

If on the edge of a hex an aircraft must use its first MP to move into the adjacent hex (either the middle or edge), ie: an aircraft may not turn back to the hex it currently occupies in a single MP.

If moving to or staying in the middle of a hex an aircraft may ignore excess MP available that turn.

VARIABLE MOVEMENT POINTS: At the beginning of an aircraft's turn to move, a die (d6) is rolled and the result added to the current speed to determine the Movement Points to be used that turn:

Sum of speed and die roll: < 4 = **0** MP, 4 - 9 = **1** MP, 10+= **2** MP

This rule is intended to reflect / represent the fluid nature of air combat wherein positioning one's aircraft relative to other *simultaneously moving* aircraft contains an element of variability.

CLIMBING / DIVING: Aircraft can move both horizontally and vertically. An aircraft that climbs or dives a level pays / gains the speed shown in the "MOVE...BET" table on the reference card:

speed	1	2	3	4	5	6	7	8	9+
climb / dive	x(2)	x(2)	3(1)	3(1)	3(1)	2(1)	2(1)	2(1)	1

Climbing / diving affects horizontal movement. The effect on how far an aircraft which is climbing / diving will move depends on the steepness: If an aircraft does a one-point climb / dive, then it uses its existing MP roll; if it does a two-point climb / dive, then it subtracts one from its MP roll; and if it does a three-point climb / dive, it subtracts two from its MP roll.

Players may use the second number in the table (in parenthesis) as the speed cost of making a half-level move. Such a half-move is indicated by pitching the model (up or down) to indicate its status. It is still considered to be within effective combat range of all other aircraft within the level, and may both attack and be attacked by same. On the following turn the aircraft MUST again pay / gain the speed to move into the adjacent level OR pass a move / maneuver bet whose level equals the required speed change. In both cases the model pitch is returned to a level status.

MOVEMENT (CLIMBING / DIVING cont'd)

Example: An aircraft at speed 6 could pay one point of speed to make a half-level move. On the next turn, it could pay another point of speed (the speed change for its new speed of 5) and be moved to the adjacent higher level OR succeed in a 1-level bet to remain at its current level.

If such an aircraft also wished to attempt a simultaneous maneuver (such as a facing change or stay-in-hex) it would need to succeed in a bet whose level equaled one plus that of the higher level of the two desired moves. In the example above, if the aircraft wished to remain at its current level (after moving only half in the previous turn) and stay-in-hex it would need to succeed in a 2-level bet.

Aircraft indicating a half-level move do not gain any bonuses to altitude changes on the following turn, ie: a normal, full-level move will not place the aircraft in a half-level status in the adjacent level. Also, no aircraft in a half-level state may do the opposite move (ie: climb or dive) on the following turn: continuing (finishing) the original move to the adjacent level or attempting to remain at the current level are its only options.

SPEED INCREASE (Power): To gain speed via power, players roll 1d6 (modified by power rating and bet status) - a roll > 2 gains one point of speed, and a roll > 6 gains two points. An aircraft trying to reach its maximum level speed subtracts one from the roll. No aircraft may use power to gain speed beyond its maximum level speed.

SPEED DECREASE (Drag and Aerobatics): To lose speed via drag, players roll 1d6 (modified by drag rating) - a roll > 2 loses one point, and a roll > 6 loses two points. Aircraft attempting to lose speed by using drag while doing a one-point dive subtract one from the roll, those doing a two-point dive subtract two, and those doing a three-point dive subtract three. Aircraft that spend Aerobic Points during a bet decrease their speed by one.

FACING CHANGES / STAY-IN-HEX: To change facing or to stay-in-hex cross-reference speed and desired maneuver on the table below to find the bet level required to succeed in the move.

(Aircraft climbing or diving use the modified speed from "CLIMBING / DIVING" above.)

speed	1	2	3	4	5	6	7	8	9	10	11	12
facing 1	auto	0	0	0	0	0	0	1	1	1	1	2
facing 2	0	0	0	0	1	1	1	2	2	2	2	2
facing 3	0	0	1	1	2	2	2	2	3	3	3	X
stay in hex	0	0	0	1	1	1	1	2	2	2	3	3

Example: Use the "facing 2" line if turning two hexsides --at a speed of 5 a bet level of 1 is required, at speed 8 a bet level of 2 is needed.

MOVEMENT (cont'd)

MOVE / MANEUVER BET: Roll (2d6) greater than or equal to the target number to move as desired.

level 0: roll **2+**. level 1: roll **4+**, pwr -1. level 2: roll **6+**, spd -1, min.spd +1. level 3: roll **9+**, spd -2, min.spd +4

The appropriate speed penalties / effects are applied regardless of the result of the bet --the aircraft is considered to be at the tested bet-level even if the bet was failed. Aircraft that pass a 1, 2, or 3-level bet by three or more on the roll are allowed a +1 bonus to that turn's power roll (if any).

EDGE GAIN: A successful bet roll gains an edge bonus equal to the level of the bet.

MOVE / MANEUVER BETS - STAYING IN HEX: Player may choose a higher level to gain a greater edge, but must pay all costs associated with the level. Failing a higher-level bet **DOES** gain the edge bonus indicated by the number rolled if a lesser level is passed (though a roll on the FAILURE table would still be required). Also: If the roll matches / exceeds the target number required to stay-in-hex, failure does not require leaving the hex.

AEROBATICS: *Aerobatics represent effort by the pilot to alter the flight of the aircraft in any way other than "normal" movement (coordinated turns, climbing, etc...).*

Players may spend Aerobic Points to increase the edge gained from a bet and/or to modify the movement-point die roll.

The maximum number of Aerobic Points allowed for any single bet equals the sum of the bet level plus the pilot's flying skill and aircraft aerobic rating.

Example: A facing change with an bet level of one allows the use of one Aerobic Point. If the pilot had a +1 flying skill (or the aircraft a +1 aerobic rating) then two Aerobic Points could be used.

NOTE: Aerobatics may be used to gain an edge even if no facing change is desired.

Example: An aircraft flying straight may take a level-one bet to gain one point of edge.

BET TARGET NUMBER: If Aerobic Points are spent the target number of the bet is increased by one. Aerobatics do not affect the level of a bet --the level is determined by the normal movement (facing change or stay-in-hex) attempted.

EDGE BONUS: Aircraft gain one point of edge for each Aerobic Point spent plus pilot's flying skill.

SPEED COST: If Aerobic Points are spent the aircraft loses one point of speed.

MOVEMENT POINTS: Aerobatics affect the Movement Points available for that turn. If Aerobic Points are spent reduce the movement-point die roll by one. If zero MP are available an aircraft may still make a bet to gain an edge, but will not move that turn.

MOVEMENT (cont'd)

MOVE / MANEUVER BETS - FAILURE: An aircraft that fails a bet must roll 2d6 (minus the amount the bet was missed by) and apply the effects from the table below:

roll	- 5	- 4	- 3	- 2	- 1	0	1	2	3	4+
edge	-6	-5	-4	-4	-3	-2	-2	-1	-1	0
move	-3	-3	-3	-3	-3	-2	-2	-2	-1	-1
speed	-2	-2	-1	-1	-1	-1	-1	0	0	0
stress	-2	-1	-1	0	0	0	none	none	none	none

edge: reduction in edge

move: reduction in the number of facing changes attempted

speed: addition to any speed loss incurred from the test

stress: modifier applied to a mandatory stress test (or to an existing test if required)

If a test involved multiple tasks (horizontal / vertical move, stay-in-hex, and/or aerobatics), the application of the result in the "move" column is left to the player to decide.

Any edge gained by the successful portion of the move (if any) is retained.

If the "move" penalty is greater than the number of facing / stay-in-hex / aerobatic changes attempted, place the aircraft in a one-point, half-move dive state (but do not apply any speed gain).

Failing a bet does not end an aircraft's movement: if it has MP remaining it may continue its turn.

STRESS: Any player attempting a level three bet or ending the turn moving faster than their maximum dive speed must roll for stress damage. Roll 2d6:

< 0 = destroyed, 0-1= fill current & next set of boxes, 2- 3 = fill current set of boxes, 4+ = none

modifiers: current damage = -1 / filled set, -2 / dbl filled set; speed = -1 / pt > max dive

STALL / SPIN: If an aircraft ends its move at or below its minimum speed, player must immediately roll 1d6 (modified by spin rating and flying skill):

If at min.speed: 1 = spin, 2 - 3 = stall, 4+ = no effect. If below min.speed: 1 - 3 = spin, 4 - 6 = stall.

If spin or stall: Spinning aircraft dive (2-point) at speed 0 in middle of current hex, and stalling aircraft have pitch set at a one-point, half-move dive and move straight ahead on current facing. Both spinning and stalling aircraft lose their current target.

Aircraft may enter a spin voluntarily by succeeding in a bet --the level of which equals that required to pay one aerobatic point. NOTE: Aircraft aerobatic rating is not used to modify the required bet level, but pilot flying skill is.

Recovery from a spin is made by succeeding in a bet as with voluntary entry, but with a -1 penalty to the roll in addition to any modification by pilot flying skill.

COMBAT

FIRING: Firing is only possible on an aircraft that has been logged as that turn's target and upon which an edge of at least one is held by the firing aircraft.

The number of hits scored equals 2d6 -10 plus the current edge modified by the factors listed below, If firing two guns, roll separately for each gun.

-- Modifiers to roll ...fixed factors: aircraft firing bonus, pilot shooting skill
...variable factors: range* ½-hex = -5, 1 hex = -10, >1 hex = no fire possible

* Range is ½-hex if target is in the middle of a hex and the firer is on the facing edge of an adjacent hex, and the range is 1 hex if the target is on the edge of a hex (any facing) and the firer is in the middle or on the facing edge of an adjacent hex. For altitude-level differences: Range increased by 0 for fire from leaving the altitude level above, by ½-hex for fire from the level above and leaving the level beneath, and by 1 hex for fire from the level beneath.

DAMAGE: Aircraft have sets of damage boxes that are marked off as hits are taken by making a diagonal slash mark in a box to indicate a hit (one hit = one box). One set must be filled in before a new set receives any marks. Once all boxes have one mark, return to the first set and begin marking in a second, crossing diagonal slash (creating an "X").

For each set filled in with one slash mark the aircraft suffers a -1 penalty to all stress tests.

For each set filled with two marks the aircraft suffers a -2 penalty to all stress tests, and has its maximum dive speed reduced by one.

For every two sets filled with two marks the aircraft has the bet-level requiring a stress test (normally three) reduced by one.

CRITICAL HITS: For every four hits* (rounded down) scored on a roll of natural doubles, the target rolls 2d6 and applies the following effects (in addition to hits already scored by attack) :

2 = engine destroyed (roll for drag each turn)	7, 8 = structural damage (fill current set)
3 = control damage (-2 to bet tests)	9 = structural damage (fill current & next set)
4 = engine hit (-2 to power rolls)	10 = pilot wounded (-1 to all skills)
5 = engine hit (-1 to power rolls)	11 = pilot wounded (-3 to all skills)
6 = control damage (-1 to bet tests)	12 = pilot killed

*Adjust for shooting skill: -1 = five hits, +1 = three hits, +2 = two hits. Also: +1 pilots may subtract one pip from a die to obtain doubles, +2 pilots may add OR subtract one pip from a die. NOTE: the addition/subtraction is of a *pip* from a single die --not one from the roll result.

ENGINE CRITICAL HITS: Roll 1d6: 1-3 = Aircraft smokes -all pilot skills are reduced by one and player rolls 1d6 (now and each following turn). Result of 1 on this later roll means the aircraft is on fire -all pilot skills are reduced by three and player rolls 1d6 each turn = damage taken. Fire damage is indicated by filling in boxes (with solid blocks) -once all boxes are filled the aircraft is destroyed.

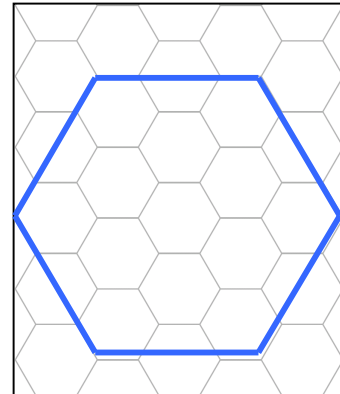
APPENDIX A: PIECES-PARTS

GAMING SURFACE: The hexes used in the game should be large enough to hold at least four models. Since they represent "engagement areas" and are not used for LOS or any other rule that would require them to be perfectly aligned / straight, a rough drawing would suffice.

If an existing hex-gridded cloth / board is already possessed that accomodates one model per hex, it can be adapted by using tape or somesuch temporary marking to indicate hexes of a larger size using the smaller hexes as a guide.

The example on the right could represent a 2" hex mat with the blue lines overlaid to create an 8" hex pattern.

It may be found that only doing the corners of the hexes is required for players to see the layout of the board.

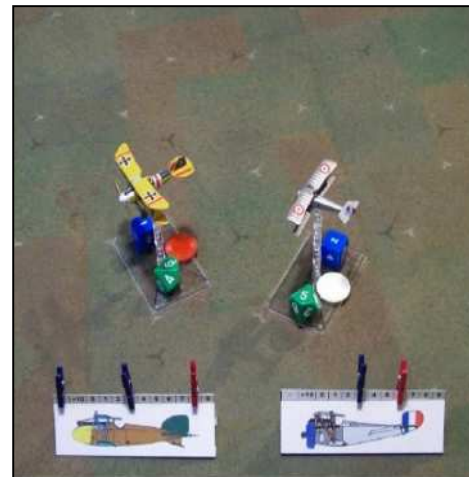


MODELS / STANDS: Any scale model can be used --though larger models requiring larger stands will significantly reduce the amount of useable gaming area in any given amount of space. Since the 1/144 models used in Wings of War are common / popular, I have used them (along with my 1/300 pieces) as an example of how to display the required data / information during play. This information includes: altitude, speed, target, and edge.

Using my stands, the altitude is shown with telescoping rods, the speed with a pointer / dial on the base, and the target and edge by clips on a scale on the lowest tubing.



Using the WoW pieces, the altitude and speed are shown with dice, and the target and edge by clips on the cards (that would be with the player at the sides of the table).



Instead of the cards, a die could possibly be used to indicate the target and/or edge, or it may also be possible to have a whiteboard or somesuch on an easel on which the targeting and edge numbers could be written --keeping track in individual logs should be used only as a last resort, as the drag on play of players having to constantly ask one another for the information should be avoided. (NOTE: The poker chips on the WoW bases are to indicate the level of the current bet --a facet that I removed from this version after taking the photo.)

APPENDIX B: PLAYER REFERENCE CARD

MOVE / MANEUVER

speed	1	2	3	4	5	6	7	8	9	10	11	12
facing 1	auto	0	0	0	0	0	0	1	1	1	1	2
facing 2	0	0	0	0	1	1	1	2	2	2	2	2
facing 3	0	0	1	1	2	2	2	2	3	3	3	X
stay in hex	0	0	0	1	1	1	1	2	2	2	3	3
climb / dive	x(2)	x(2)	3(1)	3(1)	3(1)	2(1)	2(1)	2(1)	1	1	1	1

0: 2+. **1:** 4+, pwr -1. **2:** 6+, spd -1, min.spd +1. **3:** 9+, speed -2, min.spd +4

AEROBATICS

Max Aerobic pts = sum of: bet, pilot flying skill, and aircraft aerobatic rating.
 -1 MP die roll. -1 speed. +1 bet target number. +1 edge /aerobatic point

BET FAILURE

roll	-5	-4	-3	-2	-1	0	1	2	3	4+
edge	-6	-5	-4	-4	-3	-2	-2	-1	-1	0
move	-3	-3	-3	-3	-3	-2	-2	-2	-1	-1
speed	-2	-2	-1	-1	-1	-1	-1	0	0	0
stress	-2	-1	-1	0	0	0	-	-	-	-

STRESS (2d6)

<0 = destroyed
 0, 1 = current / next
 2, 3 = current
 4+ = no effect

STALL/SPIN (1d6)

@ min: 1 = spin
 2, 3 = stall
 4+ = NE
 min: 1-3 = spin
 4-6 = stall

COMBAT: roll 2d6 -10, add edge and modifiers.

modifiers: firing bonus; shooting skill; range ½-hex = -5, 1 hex = -10.
 pair of dbl filled sets = -1 bet level for req'd stress test

DAMAGE: filled set = -1 stress, dbl filled set = -2 stress and -1 max.dive

CRITICAL HITS: 4 hits* scored on a roll of natural doubles:

2 = engine destroyed (drag roll each turn)	7, 8 = fill current set
3 = control (-2 to MTs)	9 = fill current & next set
4 = engine (-2 to power rolls)	10 = wounded (-1 all skills)
5 = engine (-1 to power rolls)	11 = wounded (-3 all skills)
6 = control (-1 to MTs)	12 = killed

*Adjust for shooting skill: -1 = 5 hits, +1 = 3 hits, +2 = 2 hits. Also: +1 pilots may subtract one pip from a die to obtain doubles, +2 pilots may ± one pip.

ENGINE HITS: 1d6: 1-3 = smoke, -1 all pilot #s. If smoke, roll each turn:
 1 = fire, -3 all pilot #s and 1d6 damage each turn. Fire damage: fill in boxes, all boxes filled = aircraft destroyed.

APPENDIX C: AIRCRAFT LOG

<p>AIRCRAFT TYPE _____ FIRING _____</p> <p>POWER _____ DRAG _____ CLIMB _____ SPIN _____</p> <p>SPEEDS: MIN _____ MAX _____ MAX DIVE _____</p>
<p>ID# _____ EXP _____ FLYING _____ SHOOTING _____</p> <p>BASE BET TARGET #'s: 0 _____ 1 _____ 2 _____ 3 _____</p> <p>+ AEROBATICS (/ EDGE): _____</p> <p>TARGET _____</p> <p align="center">DAMAGE</p> <p align="center">OOOOOO OOOOOO OOOOOO OOOOOO</p> <p>NOTES: _____</p> <p>_____</p>
<p>ID# _____ EXP _____ FLYING _____ SHOOTING _____</p> <p>BASE BET TARGET #'s: 0 _____ 1 _____ 2 _____ 3 _____</p> <p>+ AEROBATICS (/ EDGE): _____</p> <p>TARGET _____</p> <p align="center">DAMAGE</p> <p align="center">OOOOOO OOOOOO OOOOOO OOOOOO</p> <p>NOTES: _____</p> <p>_____</p>

Using this a player can control two aircraft (of the same type). If the Reference Card is not printed on the reverse, another copy of the Log can be allowing a player to run four aircraft. Pre-calculating and including base bet target numbers --and those if aerobatics are used (with edge gained)-- for each pilot reduces the amount of table-hunting/figuring during play.