

QUICK START SEQUENCE OF PLAY (QS 2.0)

INITIATIVE PHASE

Roll D10 for each AC. Add pilot mods. AC with lowest modified roll move first and so on. Tied AC roll D10s again, as needed, to break tie.

MOVEMENT PHASE

Move all AC in play, one at a time, in the order established by the initiative rolls. Lowest rolling AC move first etc. Each AC must expend all of its available full FPs in flight each game turn.

COMBAT PHASE

Resolve any declared air-to-air attacks. Determine Total Range, then determine deflection angle defense strength multiplier. Compare firepower against final defense strength to get combat odds. Roll percentile dice to determine shot results. Each shot uses up 1 point of ammo.

AC TURN CHART (QS 6.3)

Procedure: Cross index AC start speed with turn rate in use to find min. FPs of flight required to execute facing changes. Turn decel is incurred per 30° of facing change initiated. No combat allowed if ET rate used.

AC Speed in FPs	Easy "EZ"	Tact. "TT"	Hard "HT"	Break "BT"	Emerg. "ET"	Scale MPH
1.0 - 1.5	1	60	90	NA	NA	50 - 75
2.0 - 2.5	2	1	60	90	NA	100 - 125
3.0 - 3.5	3	2	1	60	90	150 - 175
4.0 - 4.5	4	3	2	1	60	200 - 225
5.0 - 5.5	6	4	3-2	2-1	1	250 - 275
6.0 - 6.5	8	6	3	2	2-1	300 - 325
7.0 - 7.5	10	7	4	3-2	2	350 - 375
8.0 - 8.5	12	8	5	3	3-2	400 - 425
9.0 - 9.5	15	9	6	4	3	450 - 475
10.0 - 10.5	18	10	8	5	3	500 - 525
11.0 - 11.5	22	12	9	6	4	550 - 575
12.0 - 12.5	26	14	11	7	5	600 - 625

- **"90" or "60" entries** indicate max. allowed facing change in degrees per FP played. All other entries allow only 30° per facing change.
- **"3-2" or "2-1" entries** indicate a split turn FP requirement. Left no. is for the first facing change and right no. for next facing change. This cycle repeats for continuous turning at same rate and speed.

FRACTIONAL VALUES (FVT)

No.	1/4	1/3	1/2	2/3
0.5	0.0	0.0	0.0	0.5
1.0	0.0	0.5	0.5	0.5
1.5	0.5	0.5	0.5	1.0
2.0	0.5	0.5	1.0	1.0
2.5	0.5	1.0	1.0	1.5
3.0	0.5	1.0	1.5	2.0
3.5	1.0	1.0	1.5	2.5
4.0	1.0	1.5	2.0	2.5
4.5	1.0	1.5	2.0	3.0
5.0	1.0	1.5	2.5	3.5
5.5	1.5	2.0	2.5	3.5
6.0	1.5	2.0	3.0	4.0
6.5	1.5	2.0	3.0	4.5
7.0	1.5	2.5	3.5	4.5
7.5	2.0	2.5	3.5	5.0
8.0	2.0	2.5	4.0	5.5
8.5	2.0	3.0	4.0	5.5
9.0	2.0	3.0	4.5	6.0
9.5	2.5	3.0	4.5	6.5
10.0	2.5	3.5	5.0	6.5
10.5	2.5	3.5	5.0	7.0
11.0	2.5	3.5	5.5	7.5
11.5	3.0	4.0	5.5	7.5
12.0	3.0	4.0	6.0	8.0

This table is used to define what portion of an AC's speed or playable FPs equals the listed fractions. It is used most often to calculate what half of an AC's speed or playable FPs is (rounded up or rounded down) in conjunction with the flight rules of Module 4.0. Cross-index the speed with the fraction to get the result. This table also defines remaining engine power points after each step loss of power from damage (see Critical Hits Effects Table).

QS AC FLIGHT PROCEDURE

A. Select Engine Power: If IDLE selected, accel = 0 and reduce start speed by 0.5. If NORMAL power selected, claim from 0 to highest no. found on *Power vs. Speed Chart* for AC speed and alt. band. If start speed > max allowed level, accel = 0 and AC must incur overspeed decel (4.5).

B. Declare Pitch Angle: AC may always keep current pitch or change pitch by one step. If so, flight path is that of selected pitch. If fast enough to use HT rates, AC may change pitch by 1 or 2 steps. If 2 steps, flight path is per intermediate pitch, between the start pitch and end pitch angles. A one step pitch change incurs TT rate decel. A two step pitch change incurs twice the HT rate decel.

- **LEVEL** pitch flight path = All allotted FPs must be HFPs.
- **CLIMB** or **DIVE** flight path = $\geq \frac{1}{2}$ of FPs (rounded up) must be HFPs. At least 1, to all remaining FPs may be VFPs.
- **STEEP CLIMB** or **STEEP DIVE** flight path = $\geq \frac{1}{2}$ of FPs (rounded up) must be VFPs. At least 1, to all remaining FPs may be HFPs
Exception: if this is 2nd turn of continuous climb pitch or dive pitch, all FPs may be VFPs.

C. Execute AC Move: Expend all full FPs. Each HFP advances AC one hex or hex side. Each VFP changes altitude by exactly 300 feet. AC must have wings banked in the desired direction of turn before starting a horizontal turn.

FP Limits: HFPs and VFPs may be mixed in any order. A carried half FP must mate with any new half FP given by AC speed to form an extra full FP. Any FPs used for maneuver preparation may not be used for banking or turning. FPs used to bank (roll) wings may not be used for turning or maneuvers.

Optional Alt. Adjustment (4.0): At end of move adjust AC altitude by 100 or 200 feet. If in any climb or dive pitch, adjustment must be in direction of AC pitch. If in level flight, adjustment may be either up or down.

Side Slip Maneuver (7.0): Expend HFPs or VFPs in flight to meet prep-move requirement. Next HFP spent executes maneuver (displace AC forward and left or right by one hex or hex side). Side Slips incur HT rate decel.

D. Update AC Flight Log: Calculate speed change. AC gain or lose 0.5 speed per 5 accel or 5 decel, respectively. Record ending altitude, speed, bank, pitch, unused half FP, accel or decel carry, and any banking, turning or maneuvers being carried forward in next game turn's log column.

QS ACCEL & DECEL POINT SUMMARY

Engine Power Accel	= From 0 to max found for alt. and speed.
One-Step Pitch Decel	= TT rate x 1 for 1 step of pitch change.
Two-Step Pitch Decel	= HT rate x 2 for 2 steps of pitch change.
Climb Decel, Dive Accel	= 1 Decel, 1 Accel per 100' of alt. change.
Per 30° of Turning started	= ADC turn rate decel in () for rate used.
Side Slip	= Starting maneuver incurs HT rate decel.

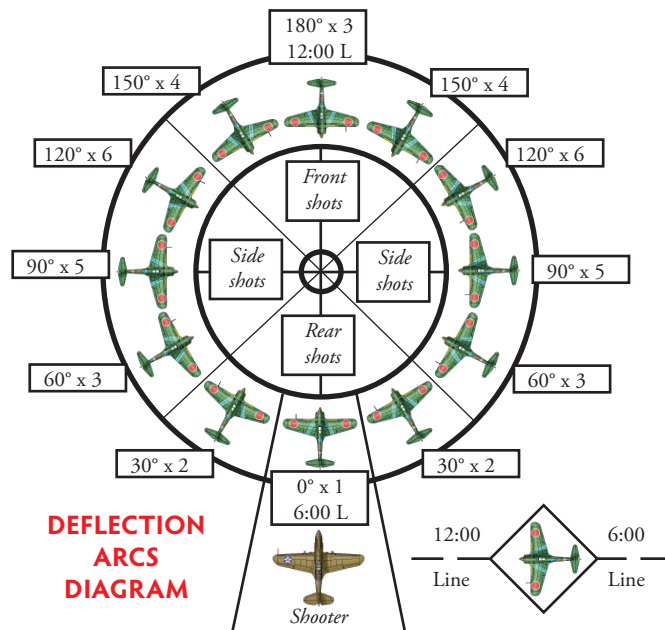
QUICK START COMBAT PROCEDURE (QS 9.5): Multiply AC defense factor by deflection arc factor to get modified target AC defense strength. Compare shooter's firepower at declared range to modified defense strength to get combat odds. Roll percentile dice for damage in hits (modify roll as given below).

Deflection Arcs Diagram: Use difference in facing between shooter and target to find initial deflection angle. 180° to 150° difference = "Front Shot"; 120° to 60° = "Side Shot"; and 30° to 0° = "Rear Shot". Adjust deflection angle for pitch relationships between shooter and target as given below, to get final deflection arc defense strength multiplier for target.

Front Shots: If both in level flight, or opposite nose pitches (e.g. normal climb vs. normal dive), no change. If both climbing or both diving, sum steps of each from level, move defl. toward-through 90° by sum. In all other cases, shift toward-through 90° by diff. in steepness (e.g., shallow vs steep = 1 diff.).

Side Shots: If both level, no change. If both climbing or both diving, sum steps of each from level, move deflection toward 0° by half the sum rounded down. All other cases, move deflection away from 0° by half the sum rounded down.

Rear Shots: If both level, no change. If both climbing or both diving, move deflection away from 0° by difference in steps of pitch. All other cases, sum steps of each from level, shift deflection away from 0° by sum.



QS Gun Attack Percentile Roll Modifiers (QS 9.5.1)

AC Def. Str. Multiplier	Per Deflection Arc Diagram Instructions
+15	Firing AC end speed below adjusted min. speed
+15	Firing AC is severely damaged
+10 (HT) +20 (BT)	Firer's highest turn rate used was HT, or BT
+15	Firer in or did side slip
-10 (180°) -20 (00°)	If firer's 12:00 line superimposes tgr's 6:00 line with 180°, or 0° heading diff. (Note: NA if relative pitch attitudes > one step apart.)

QS COMBAT ODDS - DAMAGE TABLE (QS 9.5)

		ODDS (Odds < 1-6 get +05 percent to die roll per odds under 1-6. Odds > 10-1 get -10 percent to die roll per odds over 10-1)												
		1-6	1-4	1-2	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1
Percent Die Roll	≤ 01*	4	4	5	6	7	8	9	10	12	14	16	18	20
	02-05	2	3	4	5	6	7	8	9	10	12	14	16	18
	06-11	1	2	3	4	5	6	7	8	9	10	12	14	16
	12-22	–	1	2	3	4	5	6	7	8	9	10	12	14
	23-39	–	–	1	2	3	4	5	6	7	8	9	10	12
	40-59	–	–	–	1	2	3	4	5	6	7	8	9	10
	60-76	–	–	–	–	1	2	3	5	5	6	7	8	9
	77-87	–	–	–	–	–	1	3	4	5	5	6	7	8
	88-93	–	–	–	–	–	–	2	3	4	5	5	6	7
	94-96	–	–	–	–	–	–	–	2	3	4	4	5	6
	97-98	–	–	–	–	–	–	–	–	–	–	2	4	5
	≥ 99	–	–	–	–	–	–	–	–	–	–	–	–	–

***Lucky Shot Rule:** A percentile shot roll of 01 (before mods.) always inflicts > of 4 hits, or actual hits earned after mods. applied, regardless of odds.

QS CRITICAL AREA HIT TABLE (QS 9.7)

D10	Area Hit
1 or 2	Engine
3 or 4	Fuel Tanks
5	Hollow Space (no effect roll)
6	Cockpit Area
7 or 8	Wings
9 or 10	AC Controls

QS CRITICAL HIT EFFECTS TABLE (QS 9.7)

Area Hit	D10: ≤ 1	2 to 3	4 to 6	7 to 8	9 or more
Engine:	Engine seized	Engine Fire	Power loss	Power loss	Oil Leak
Fuel Tanks:	AC blows up	Fuel Tank Fire	Fuel Leak	Fuel Leak	No effect
Cockpit:	Pilot KIA	Pilot KIA	Pilot WIA	Lose 1 N gun	No effect
Wings:	Wing breaks off	Wing Spar	+1 Bank / Slip	Lose 1 W gun	No effect
Controls:	Cables severed	Tail Structure	+1 bank / Slip	No BT, ET rate	Dam. Cables

Critical Damage Notes: If a RED result occurs, AC is shot down. A pilot WIA twice becomes KIA. Each existing wing spar, tail structure, oil leak, fuel leak or damaged cables hit = -1 to effect rolls in that area. Two wing spar or two tail structure hits destroy an AC. Each +1 Bank / Slip result adds a cumulative +1 to the FP requirement for banking and side slips. Each engine power loss reduces max available accel by one fraction (e.g., from full to ¾, ½, ¼, and then to engine seized. Use FVT for values). Each engine power loss reduces max level speed by 0.5. For each engine fire or fuel tank fire hit, roll D10 at end of game turn, (1= AC blows up, 9 or 10= fire out. -1 mod. if fuel fire. +1 if speed 8.0+.