

**WML - Errata Version 1.0, 4 July 2020****Designer's Comments:**

Hello everyone,

Alas, no game is ever free of errata. WML has been out in public for about 6 months and the following is what we've spotted so far. This is the first official errata issue for the game. Happily, I think for a game of this magnitude there is surprisingly little errata, but there are some rules changes and additions I wish to introduce as well (see below). In any case, I hope you are enjoying the game so far. Best wishes,

J.D. Webster

P.S. As a special bonus for your trouble, this errata set includes a new and unpublished ADC for the WML game.

**WML - A/C Data Cards - Errata****Soviet A/C****MiG-3 (correction)**

Fire power Totals, Range 5 should be: 3.5 / 7.5 (not 3.5 / 9)

**Lavochkin LA-7 (correction)**

Fire power chart, Type Weapons: All 20mm ShVAK and B-20 guns should be underlined as they can be recharged in play.

**Suhkoi SU-2 (correction)**

ML band dive speed should be: 8.5 (not 7.5)

**Petlyakov Pe-2 (correction)**

Size modifier should be: +0 (not +1)

**Ilyushin IL-4 (correction)**

Gun Attack Factors Table, NG gun should be labeled FG gun.

**Tupolev TB-3/RN (corrections)**

A/C Crew should be: Pilot, copilot, bomb. / navigator (FG),  
4 x gunners (DG-1 & 2, VG and TG)

A/C Notes, Revision (for easier clarity), change Fuel paragraph to:

**Fuel:** Max endurance = 720 if load ≤ 1,100 lbs. For each 550 lbs. or less of load > 1,100, reduce max end. by 50, down to a minimum of 220 for loads exceeding 6,600 lbs. If endurance > 220, fuel protection = -1; if > 440, fuel protection = -2.

**DG1 Defensive Gun Arc** should be: DG#1\* 09 – (06), U+ to 1–.

**German A/C****DFS 230A-1 / A-2 / B-2 Glider (corrections)**

Notes label should be "**DFS 230A-1, A-2**" (not 320A-1 / A-2).  
Banking / Slip/Skid FP requirement missing; is 3 / 3 at all speeds.

**Gotha Go 242A-1 to B-2 Glider (correction)**

Banking / Slip/Skid FP requirement missing; is 2 / 4 at all speeds.

**Fw 189A-2 "Uhu" (correction)**

A/C Crew should be: Pilot, engineer-gunner (TG),  
navigator-radioman-bombardier (DG)

**Hs 129B-2/R2 (correction)**

A/C Notes, MG-17 pod firepower totals should be:  
Ranges (0-7) = 88, 70, 44, 30, 21, 14, 6, –

**Bf 109F-4/R3 (correction)**

Power vs. Speed Chart, Banking FPs should be:  
Banking FPs: 2 / 2 2 / 3 4 / 5 7 / 8 (not 7 / 9)

**Bf 109G-14/R3 (correction)**

Fire Power Chart, both 20mm MG-151 pods should be underlined as they can be recharged in play.

Note - Replacement ADCs will be released as time permits.

**WML - Ship Data Cards - Errata**

None reported yet.

**WML - Scenario Book - Errata****A/C AVAILABILITY TABLE**

**Summer 1942:** Delete the Bf 109G-1/R3 listing as this ADC was not included in the game.

**Fall 1942:** List the Bf 109G-2/R6 variant here.

**Scenarios**

**Scenario T2, Eagle Strike (correction):** There is an error in the energy calculation for the P-39 for its turn 3 move example. Total Decel should be: 10 for two-step BT rate transition, 0 for the BT turn due to transition turn decel credit (5-5cr.), 4 (not 2) for the HT turn, and 6 for over-speed. Total decel = 20 - 9 accel = -11 net. Thus, the P-39 ends in hex 2924 facing SSW, at altitude 10.6, speed 5.5 with a 0.5 FP carry and 1 decel point carried forward, in a left bank (LB) and shallow dive (SHD).

**Training Scenario 3:** In the rules, page 30, you are directed to play *Training Scenario 3*. This scenario does not exist. Training scenario 3 became *Introductory Scenario 1: The Fighting General* in the final game lay out.

**Scenario #5, Stuka Pilot's Folly:** The scenario date should be 17 July, 1943 (During the battle of Kursk. Use the new Ju 87D-5 ADC.

**Scenario #16, Sasha's Lucky Escape:** Bf 109s #3 and #4 have their set up hexes reversed. #3 should be in hex 1716 and #4 in 1618

**Scenario #125, Help Arrives Variant:** The pilot quality of reinforcing Soviet fighters is regular. Alternately, you can roll for pilot quality via the tables in Chapter 13 of the rule book using "Average" quality column.

**WML - Rule Book / Play Aid Discrepancies**

**Note - The game had last minute edits and changes right up to the week it went to press. Some last minute changes made it into one section but not the other. My apologies. This section addresses the discrepancies.**

**Rules, page 8, Rule 4.1, Accel Points, Power Settings (revision):** Cruise "C" should read: "From 0 to 1/3 of available military accel may be taken...etc.", to match what is stated in the *Flight Rules Summary Play Aid, page 1, Common Accel & Decel List*.

**Rules, page 32, Rule 13.5 Bail Outs, Free Falling (correction):** The sentence: "If opening a parachute without free-falling, roll a D10, on a "1" they perish...", should read: "...on a 10 they perish...", to match what is in the *Op-Scale Play Aid, Aircrew Bail Out Table, page 3*.

**Rules, page 51, Rule 19.1, Strafing with Guns, Modifiers (addition):** The universal A/C mods. also apply to strafe attacks.

**Rules, page 53, Rule 20.1.1 Scattered & Random Bombs, Scatter Limits (correction):** First sentence should read: "Bombs may not scatter further in distance than average (rounded down) of the bomb marker's horizontal speed plus its time-of-fall" to match what is stated in *Combat Tables Play aids, page 8*.

**Rules, page 57, Rule 24.2.1, Resolving Lt. & Med. AAA Attacks (correction):** Item 2 should refer to AAA LH modifiers on *Combat Tables Page 6* (not *Page 10*).

**Rules, page 58, Rule 24.3.1, Heavy AAA Attack Procedure (corrections):** Step 3, last sentence should refer to AAA LH modifiers on *Combat Tables page 6* (not *Page 10*). Step 3, last sentence should refer to AAA LH modifiers on *Combat Tables page 6* (not *Page 10*).

**Play Aids, Op-Scale Tables, Page 3 (correction):** The *Aircrew Bail Out Table* and *Aircrew Bail Out / Crash Fate Table* should both reference rule (13.5), and not rule (13.6). There is no rule 13.6.

**PlayAids, Combat Tables, Page 2, Critical Hit Tables, Engine Critical Hit Table (clarification):** The single asterisk for critical result D10 rolls 2 and 3, and critical D10 rolls 7 and 8 with a follow on "even" D10 roll simply indicate that a visible white smoke trail results from this damage.

The double asterisk for critical result D10 rolls of 4, and of 7 with a follow on "odd" roll (minor fires) indicate that a visible dark smoke trail results from this damage. A critical D10 result of 5 and 6 in which cumulative power loss exceeds 2 steps also produces dark smoke. *This is only used in games where players agree to use hidden (secret) damage effects and reveal only visible descriptive damage to the shooter.*

*Note – If an A/C has preexisting Coolant Leaks, Oil Leaks or Fires, from turns prior to the current one, a progressive damage check must be made during step 9 of the combat phase (per Rule 8.3, page 20). The asterisks mentioned above were not intended as reminders for these checks, as some are guessing. They just indicate the presence of smoke.*

**PlayAids, Combat Tables, Page 7, Ground Attack Procedures Summary, Strafing (clarification):** The strafing modifiers section mentions Universal A/C modifiers but does not mention Air-to-Air shot modifiers. as mentioned in rule book page 51. All air-to-air modifiers and all universal A/C modifiers can apply to strafe attacks.

**Play Aids, Combat Tables, Page 7, Ground Attack Procedures Summary, Rocketry (correction):** The Modifiers should read: "See ATG Rocketry Tables, page 10 for attack mods." (not page 6).

**PlayAids, Combat Tables, Page 7, Ground Attack Procedures Summary, Bombing (correction):** The Modifiers should read: "Bomb Accuracy LH Mods. Table (Combat Tables - page 9)", (not page 7).

**Play Aids, Combat Tables, Page 8, Enhanced Bomb Attacks (clarification):** This applies only to a single primary target in the original, aimed at, target hex and not for primary tgts. in other strung out impact hexes.

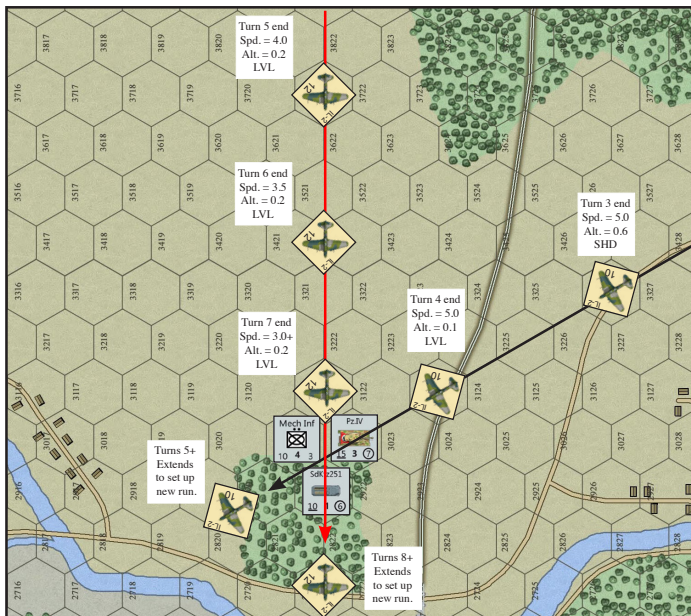
**WML - Rules Supplement #1 - Errata**

**Page 5, Ch.5 Example 5.2 Horizontal Turns (correction):** At the end of turn 2 the final I-16 position should show it's facing as NNE (not NE):

"I-16 2920 NNE 6.5 4.0(+0.5) LB -1 LVL NA"

On the sample log sheet on the back of the rules supplement, first example, the Turn 3 start facing should be: NNE, (not NE). Also, for Turn 2 the I-16's HFP/VFP split should be "5 / 0" (not "6 / 0").

**Page 11, Ground Attack Rules Example, Rule 18.2 (clarification):** This section refers to "...the red line emanating from the A/C's nose", but the picture is B&W. Here is the full color picture originally submitted.



**FW 3rd. Ed. - Rule Book  
New Rules, Changes, Clarifications**

**Rules, page 7, Rule 3.5.1 Fractional Values Table (addition):** The original FVT in the play aids was designed for counting FPs or defining FP ratios based on values of 1 (full) or 0.5 (half) FPs. Some FW series games have now introduced A/C with engine powers expressed in fractions of 0.25. Below is an optional FVT to be used for engine power load and damage reduction calculations when summed power is in these lower ranges.

Value	1/4	1/3	1/2	2/3
0.25	0.00	0.00	0.00	0.25
0.50	0.00	0.00	0.25	0.25
0.75	0.00	0.25	0.25	0.50
1.00	0.25	0.25	0.50	0.75
1.25	0.25	0.50	0.50	0.75
1.75	0.25	0.50	0.75	1.00
2.00	0.50	0.75	1.00	1.25

**Rules, page 50, Rule 18.3, Collateral Damage, Multiple Targets (clarifications):**

- **Primary Target** – This is the target in the aimed at *Target Hex* deemed closest to any bursting ON TARGET bombs. This target is randomly selected when doing level and shallow bomb attacks. This target is attacker selected when doing steep and vertical bomb attacks.
- **Secondary Target** – This is ANY target in any bomb impact hex that is not the selected or randomly determined primary target.

**Rules, page 50, Rule 18.3, Secondary Targets (clarification):** This rule tells the player to use 1/2 the attack strength of weapons landing in an impact hex against secondary targets. It applies in most situations. However, **Rule 20.1, Large and very Large Bomb Effects** supersedes rule 18.3 in the various cases outlined, as does **Rule 21.3 Cluster Bomb (CB) Attacks** (where all targets in all hexes are primary targets).

**Rules, page 50, Rule 18.3.1, Collateral Damage, Multiple Targets, Random Selection (new):** When RANDOMLY selecting a *Primary Target* in an impact hex, one extra possible selection should be "none".

*Example: If there are three possible targets in an impact hex, then there are four choices (one of the three and none of the three). In this case, each has a 25% of being the primary target with there being a 25% chance that none are selected, in which case, all are attacked as secondary targets).*

**Rules, page 51, Rule 19.1.1, Multi-Target Area Strafing (addition):** Gun harmony affects are based on the doubled (not normal ranges) when area strafing. *Example, if area strafing at range 3 to 4, or 5 to 6 with harmonized wing guns, award the -15, or -10 gun harmony mods., respectively.*

**Rules Page 52, Rule 19.4, Strafing & Rocketing Ships, Extended Range Deck Strafing (additions):** Compared to ground targets, ships of > 100 tons are very large targets thus strafing vessels is an "area" type attack. Per the rule 19.1.1 addition above, gun harmony affects are based on doubled ranges (not normal or quadruple range) when strafing or deck strafing such vessels. In addition, a ship size modifier = minus 10 x its D10 Roll to Hit no. applies to any kind of strafing or rocket attack.

**Rules, page 53, Rule 20.1, Bomb Strings (additions):**

1. For an ON TARGET bomb string from level or shallow bombing, randomly select one primary target in every impact hex of the string.
2. For an ON TARGET bomb string from steep or vertical bombing, the attacker selects the primary target in TARGET HEX. In all other impact hexes of the string the primary target is randomly selected.
3. If a bomb string SCATTERS and no bombs land in the original target hex, all targets in all impact hexes are secondary targets.
4. If a bomb string SCATTERS, but some bombs in the string land in the target hex for any reason (scatter limits = 0, or luck), randomly select a primary target in the original target hex only. All other targets in all impact hexes remain secondary targets regardless of delivery profile.

**Rules, page 55, Rule 21.1.1, Skip Bombing Notes (clarifications):**

- Skip bombing is a variation of level bombing. The RP and TOF drift error modifiers are always +00 regardless of release range, speed or in which game turn the accuracy check is made.

- Skip bombs have a one turn delay fuse activated upon being dropped. They always explode in the combat phase of the following turn. If they score a direct hit on the turn of release they are imbedded inside and will be carried forward with the vessel if it moves. If not, they will remain in their scatter or near miss hex.

- If a skip bomb executes its accuracy check on the turn of release, the following turn's bomb attack is resolved in step 1 of the combat phase. If it executes its accuracy check on the same turn it explodes, the attack is resolved in step 7 of the combat phase.

**Rules, page 55, Rule 21.1.2, Skip Bomb Markers (new rule):** When a skip bomb is dropped place a bomb marker in the hex or on the hexside occupied by the bomber at the instant of release. The marker is allotted the same number of full FPs (for skipping) as the bomber has for flying on the turn of release. Once placed, the marker is advanced one hex along that particular LOA for each following FP played by the A/C in the same or during the next game turn, until the bomb exhausts its allotted set of FPs.

The instant the bomb a) enters a hex or moves onto a hexside, currently occupied by a naval vessel (or its bow, center or stern), or b) crosses any portion of an occupied hexside (including either end of the hexside, or the middle), or c) the bomb runs out of allotted FPs before encountering a potential target vessel roll for the bomb's accuracy (scatter check) and place it in its final location. If the bomb is on target or scatters to a vessel occupied position, check for direct hits or near misses normally.

**Rules, page 55, Rule 21.2, Parafrag Bomb Attacks (additions):**

- Parafrag bombing is a variation of level bombing. The RP modifier is taken from the level bombing release point table (Combat Tables, page 9). Always add 1 to the parafrag bomb's TOF. Normal or delay fusing may be used with parafrag bombs.

**Chapter 28, Damaging Ships (changes preamble):** *In the third ed. rules, a well intended adjustment to bomb damage modeling in the final weeks of testing was made, toning down damage caused to what seemed a better level of realism. However, I forgot to also adjust, proportionately, ship armor damage attenuation before going to press. Also, I want to better reflect that ship's armor is, generally, an interior thing, protecting vitals, and even heavily armored ships have lots of exterior structure, decking and hull plating that can be damaged by the sheer mass of the impacting bomb as well as from the explosive effects of the bomb.*

**Rules, page 62, Rule 28.1.1, Minimum Guaranteed Bomb Damage (MGD) (new rule):** Regardless of armor presence or not, a direct hit bomb always inflicts kinetic damage equal to its load point value, in addition to the normal damage inflicted by its explosion. Ship armor only attenuates explosion damage.

**Rules, page 62, Rule 28.1 Naval Unit Damage, Ship Armor (additions and changes):**

- The effects and presence of armor are ignored for "deck strafing" attacks as those are directed at exposed positions above the armor.

- Damage attenuation against direct hit bomb or torpedo explosions is calculated normally, via D5 rolls (not D10 rolls).

- Against "near miss" bomb attacks the amount of damaging hits canceled by armor is equal only to the no. of critical hits the armor can cancel. *Near miss explosions have a "mine" underwater effect that armor does not protect against, in addition to above water shrapnel.*

**Rules, page 62, Rule 28.1 Naval Unit Damage, Ship Armor Effects Table (change):** The amount of damaging hits canceled by armor is based on D5 rolls (not D10 rolls as shown in the chart).

**FW Naval Tables, page 1, Ship Armor Effects Table (28.1) (change):** The amount of damaging hits canceled by armor is based on D5 rolls (not D10 rolls as shown in the chart).

**Rules, page 63, Rule 28.3, Special Damage Considerations, Flight Deck Damage & Bombs (revision):** Change first sentence to read: "A non-penetrating bomb inflicts flight deck damage = 1/2 its soft attack strength (rounded down), or one D5 of damage + the bomb's MGD (minimum guaranteed damage, rule 28.1.1) if the flight deck is armored (indicated by underlined FDC values, Chap.29)."

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**Frequently Asked Questions:**

**1. Combat Modifiers - Turns and Transitions:** Are the shot modifiers for turn and transition rates cumulative in a game turn? - No, only the highest turn rate used, or carried into the game turn, by the aircraft counts. That modifier is only applied once.

**2. Combat Rules - Formation Defensive Fire during Movement Phase:** If an A/C responds to a head-on attack during movement with defensive guns, can other friendly A/C help with their defensive guns? - Yes, but only within the limits allowed by the involved A/C' formation status, and all such guns are considered to have fired for the game turn and cannot be used later in the combat phase.

**3. Combat Rules - Range 0 or not Range 0?:** A same hex attack where altitude difference between shooter and target is less than 300 feet is always range 0. Only when calculating ranges at distances of one or more do you apply the round up at 200 feet and round down for 100 foot differences rule (see Vertical Range Table).

**4. Combat Rules - Range 0 Deflection Check for Fixed Gun Shots:** Use the same procedure as called for when doing defensive gun range 0 gun arc checks.

**5. Flight Rules - Turn Carry, Move-to-Face Rule:** If, from one game turn to the next, an aircraft's speed drops so that its turn carry now satisfies the new speed's turning FP requirement, can the aircraft immediately face before moving? - No, at least one FP must be expended before an A/C can face in the new game turn. This is best remembered as the "**Move-to-Face**" rule. If you did not change facing after the last FP the turn prior, you lost that opportunity. You have to wait until the next FP is played that meets or exceeds the new speed's turning FP requirement.

**6. Flight Rules - When to use Turning Gunfire Arcs:** If an A/C ends a game turn while using a vertical roll facing change, or taking a free transition induced facing change, but does not actually do turning, which gunfire arc is used? - The turning arc (key words are: a facing change occurred).

**7. Flight Rules - Average ROC:** When are A/C rate of climb numbers used in play? I can't find a reference to them in the flight rules. - At the tactical scale and operational scale for climb calculations. Note that only at the tactical scale are these nos. adjusted for load. At the operational scale always use the full ROC nos. as load is accounted for by the number of altitude multiples an aircraft can gain in a turn.

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**New Wings of the Motherland ADC / Ju 87D-5 "Stuka"**

By way of Apology for the errata, I'm including a new ADC for your enjoyment. I present you the Junkers Ju 87D-5 "Stuka". This ADC should be used in the below listed WML scenarios in lieu of special notes for using the Ju 87D-1 card. The D-5 model had a slightly larger wing, more powerful engine, better load ability and 20mm cannon armament.

- **Air-to-Air scenarios:** #5 - *Stuka Pilot's Folly*, #117 - *Rudel and Shestakov*, and #120 - *A Great Mix Up*.

- **Air-to-Ground scenarios:** #34 - *Brute Force Charge*, #36 - *The 13th Tank* and #37 - *Human Wave Attack*.

**WB 81 Gun Pod Notes** - *The WB 81 has two variants: The A model, which fires straight and may be used normally as another fixed gun; and the B model with guns set to fire downward 15 degrees (vertical field-of-fire is one steeper than A/C pitch). B model may not be fired in same turn as A/C fixed guns due to different sight settings. The B model makes it easier for A/C to strafe from level flight (descent while aiming not required).*

# Junkers Ju 87D-5 "Stuka"

A/C Type: Single Engine Dive Bomber  
 Engine(s): One Junkers Jumo 211P  
 Eng. Pwr: 1,410 – 1,500 HP Liquid Cooled  
 A/C Crew: Pilot, radioman-gunner

Max Speed: 250 MPH at 13,400 Feet  
 Max Ceiling: 23,900 / 20,200 / 15,500 Feet

Defense Factor: 5 Size Modifier: +0  
 Damage Factor: 14 / 21 Endurance: 160  
 Cockpit View: Fair Blind Area: 6:00 line low

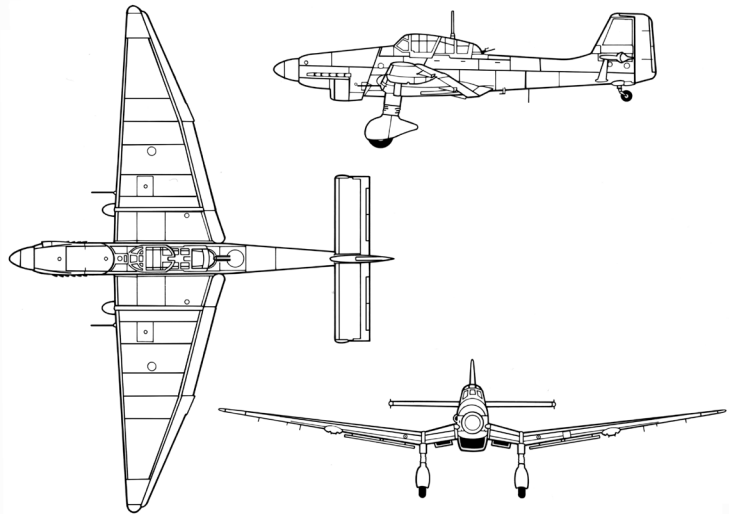
Protection: Cockpit +3 Fuel +2 Engine +1

Climb Decel / Dive Accel: 3.0 / 1.0  
 Weight and Load Limit: 4,000 / 4 – 12

Wpn. Stations	Weight	Allowed Loads
1, 3	550	Bombs, Fuel Tanks Gun and Wpn. Pods
2	4,000*	Bomb (see notes)

Country: Germany

Service Entry Date: June 1943



Class: LD

Victory Points: 7 – 13

## AIRCRAFT PERFORMANCE CHART

Altitude Levels	Band	Minimum Speed	Maximum Speed	Maximum Dive Spd.	Min. TT (3)	Min. HT (4)	Min. BT (5)	Min. ET (6)	Altitude Band	Levels	Average Rate of Climb
31 - 36	VH	—	—	—	—	—	—	—	VH	31 - 36	—
25 - 30	HI	—	—	—	—	—	—	—	HI	25 - 30	—
19 - 24	MH	2.5	4.5	9.5	3.5	4.5	5.5	6.5	MH	19 - 24	300
13 - 18	ML	2.0	5.0	9.0	3.0	4.5	5.0	6.0	ML	13 - 18	600
7 - 12	LO	2.0	5.0	8.5	2.5	4.0	4.5	5.5	LO	7 - 12	900
1 - 6	VL	2.0	4.5 (5.0)	8.0	2.5	3.5	4.5	5.0	VL	1 - 6	1,200

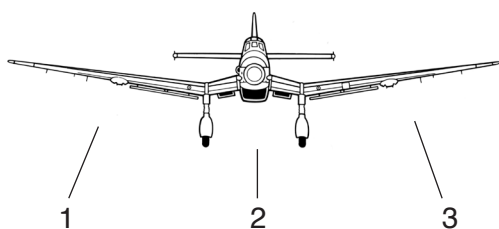
## FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
W1-L	One 20mm MG-151	7	2
W2-R	One 20mm MG-151	7	2
DG	Twin 7.9mm MG-81Z	18	4

## GUN ATTACK FACTORS

Range	W1	W2	(Total)	—	DG
0	26	26	52	—	12
1	20	20	40	—	9
2	13	13	26	—	6
3	9	9	18	—	4
4	6	6	12	—	3
5	4	4	8	—	2
6	3	3	6	—	—
7	—	—	—	—	—

## WEAPON STATIONS



## POWER VERSUS SPEED CHART

Levels	Band	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0 +	Band
25 - 30	HI	—	—	—	—	HI
19 - 24	MH	3 / —	—	—	—	MH
13 - 18	ML	4 / 5	2 / 3	—	—	ML
7 - 12	LO	4 / 5	2 / 3	—	—	LO
1 - 6	VL	4 / 5	— (3 / 4)	—	—	VL
Banking FPs:		2	3	5	8	
Side Slip FPs:		2	4	6	9	

## NOTES & VARIANTS

**Ju 87D-5:** Late D model "Stuka" with improved engine, larger wing, greater load capacity and firepower. Tropical models have sand filters and desert survival gear. Fixed landing gear (jettisonable for forced landings). Dive brakes. (By 1944, some units were deleting the dive brakes since high altitude dive bombing was no longer tenable. If so\*, use speed & power in ( ) in VL band and add 1 to all other power nos.

**Jumo 211J-1 engine:** Many early production D-5s were delivered with the earlier J-1 engine (D10 < 8 to have, +1 per month after June 1943). If so, reduce all engine power nos. by 1.0 and all ROC numbers by 100 FPM.

**Ju 87D-8:** About 200 D-5s were converted to night intruders (crews trained for night ops). Shrouded engine exhausts. Dive brakes deleted (vertical dive bombing not used at night). IFF radio. Radar altimeter installed. All else as D-5.

**Loads:** Stations 1 and 3 each for two bombs of up to 160 lbs. apiece, or one bomb, fuel tank, weapon pod or CB dispenser of up to 550 lbs. Station 2 may carry one bomb of up to 2,200 lbs normally. Station 2 may carry one bomb of > 2,200 lbs. and up to 4,000 lbs. if endurance reduced by 20 for each 550 lbs. or less of total load > 2,200 lbs. carried. If so, BT+ rates risk overstress until load ≤ 2,200 lbs. total.

**DEFENSIVE GUN ARC** DG, 04 – 08, 8+ to 2–, except 6:00 line = 8+ to 1+