

B-29

Bombers Over Japan 1944 - 1945

SUPERFORTRESS

Chart Book



LEGION
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2.0. PRE-MISSION STEP TABLES

Table 2-1 MISSION #1-10 TARGETS

Roll 2D

| Dice | Target | Type |
|------|-----------------|------------------|
| 2 | <i>Iwo Jima</i> | Airfield |
| 3 | <i>Nagoya</i> | Urban Area |
| 4 | <i>Akashi</i> | Aircraft Factory |
| 5 | <i>Nagoya</i> | Aircraft Factory |
| 6 | <i>Nagoya</i> | Aircraft Factory |
| 7 | <i>Tokyo</i> | Aircraft Factory |
| 8 | <i>Tokyo</i> | Aircraft Factory |
| 9 | <i>Tokyo</i> | Aircraft Factory |
| 10 | <i>Ota</i> | Aircraft Factory |
| 11 | <i>Kobe</i> | Urban Area |
| 12 | <i>Okinawa</i> | Airfield |

Note: that all missions from this table are “Day”, “HI” Altitude

Ω Table 2-2A MISSION #11-35 TARGETS

Day or Night Missions: Roll 2D: “2-6” = Night, “7-12” = Day

Roll 2D

| Dice | DAY TARGET TYPES * | NIGHT TARGET TYPES |
|------|--------------------|--------------------|
| 2 | Urban Area | Urban Area |
| 3 | Urban Area | Urban Area |
| 4 | Airfields | Urban Area |
| 5 | Airfields | Urban Area |
| 6 | Urban Area | Urban Area |
| 7 | Aircraft Factory | Urban Area |
| 8 | Urban Area | Urban Area |
| 9 | Airfields | Urban Area |
| 10 | Aircraft Factory | Urban Area |
| 11 | Urban Area | Urban Area |
| 12 | Urban Area | Aircraft Factory |

Ω Table 2-2B ALTITUDE

Day Target Types

Urban Area (roll 1D):

“1”= “HI”, “2-5” = “MED”, “6” = “LO”

All Other Targets (roll 2D):

“2”= “LO”, “3, 5-12”= “MED”, “4” = “HI”

Night Target Types

All “Night” Missions are automatically “LO”

* Roll on Table 2-2B for Mission Altitude (“Day” Missions Only!)

- For Urban Area (*a.k.a. U/A*) Missions, go to Table 2-2C
- For Airfield Missions, go to Table 2-2D
- For Aircraft Factory Targets, go to Table 2-2E

Ω Table 2-2C
U/A TARGETS
Roll 2D

| Dice | Target * |
|------|-----------|
| 2 | Yawata |
| 3 | Nagoya |
| 4 | Yokohama |
| 5 | Kobe |
| 6 | Tokyo |
| 7 | Nagoya |
| 8 | Tokyo |
| 9 | Osaka |
| 10 | Osaka |
| 11 | Kawasaki |
| 12 | Amagasaki |

Ω Table 2-2D
AIRFIELD TARGETS
Roll 2D

| Dice | Target * | Dice | Target * |
|------|-------------|------|-------------|
| 11 | Kanoya | 41 | Izumi |
| 12 | Kanoya | 42 | Izumi |
| 13 | Kanoya | 43 | Kushira |
| 14 | Kanoya | 44 | Kushira |
| 15 | Kanoya | 45 | Nittagahara |
| 16 | Kanoya | 46 | Usa |
| 21 | Kokubu | 51 | Saeki |
| 22 | Kokubu | 52 | Matsuyama |
| 23 | Kokubu | 53 | Tomitaka |
| 24 | Miyazaki | 54 | Ibusuki |
| 25 | Miyazaki | 55 | Tachiarai |
| 26 | Miyazaki | 56 | Tachiarai |
| 31 | Miyakonojo | 61 | Tachiarai |
| 32 | Miyakonojo | 62 | Oita |
| 33 | Miyakonojo | 63 | Oita |
| 34 | Kanoya East | 64 | Oita |
| 35 | Kanoya East | 65 | Oita |
| 36 | Kanoya East | 66 | Chiran |

Ω Table 2-2E
AIRCRAFT FACTORY TARGETS
Roll 2D

| Dice | Target * | Dice | Target * |
|------|----------|------|--------------|
| 11 | Handa | 41 | Nagoya |
| 12 | Osaka | 42 | Nagoya |
| 13 | Eitoku | 43 | Nagoya |
| 14 | Eitoku | 44 | Omura |
| 15 | Akashi | 45 | Omura |
| 16 | Akashi | 46 | Omura |
| 21 | Akashi | 51 | Kagamigahara |
| 22 | Koriyama | 52 | Kagamigahara |
| 23 | Tokyo | 53 | Kagamigahara |
| 24 | Tokyo | 54 | Shizuoka |
| 25 | Tokyo | 55 | Kure |
| 26 | Tokyo | 56 | Narao |
| 31 | Tokyo | 61 | Ogikubu |
| 32 | Tokyo | 62 | Omiya |
| 33 | Tokyo | 63 | Tomioka |
| 34 | Nagoya | 64 | Chiba |
| 35 | Nagoya | 65 | Himeji |
| 36 | Nagoya | 66 | Mizushima |

* See Section 9.2 if any rolled for target has been totally “bombed out” on a U/A mission.

Ω Table 2-3 ALTERNATE U/A TARGETS

Roll on this table if a “bombed out” U/A target on Table 2-2C is rolled for (see Section 9.2)

Roll 1D: “1-3” use Chart 1, “4-6” use Chart 2

Chart 1

Roll 2D:

| Dice | Target | Dice | Target |
|------|----------------|------|---------------|
| 11 | <u>Niigata</u> | 41 | Chiba |
| 12 | Hamamatsu | 42 | Akashi |
| 13 | Yokkaichii | 43 | Shimizu |
| 14 | Toyohashi | 44 | Kofu |
| 15 | Fukuoka | 45 | Sendai |
| 16 | Shizuoka | 46 | Sakai |
| 21 | Okayama | 51 | Wakayama |
| 22 | Sasebo | 52 | Gifu |
| 23 | Moji | 53 | Utsunomiya |
| 24 | Nobeoka | 54 | Ichinomiya |
| 25 | Kure | 55 | Tsuruga |
| 26 | Kumamoto | 56 | Uwajima |
| 31 | Ube | 61 | Namazu |
| 32 | Shimonoseki | 62 | Oita |
| 33 | Takamatsu | 63 | Kuwana |
| 34 | Kochi | 64 | Hiratsuka |
| 35 | Himeji | 65 | Fukui |
| 36 | Tokushima | 66 | <u>Kokura</u> |

Chart 2

Roll 2D:

| Dice | Target | Dice | Target |
|------|------------------|------|-----------------|
| 11 | <u>Hiroshima</u> | 41 | Mikage |
| 12 | Okazaki | 42 | Imabari |
| 13 | Matsuyama | 43 | Fukuyama |
| 14 | Tokuyama | 44 | Kumagaya |
| 15 | Omura | 45 | Isezaki |
| 16 | Tsu | 46 | Choshi |
| 21 | Aomori | 51 | Kagoshima |
| 22 | Ichinomiya | 52 | Hitachi |
| 23 | Uji-Yamada | 53 | Kushikino |
| 24 | Ogaki | 54 | Akita |
| 25 | Uwajima | 55 | Kansai |
| 26 | Hachioji | 56 | Kudamatsu |
| 31 | Toyama | 61 | Oshima |
| 32 | Nagaoka | 62 | Fukuoka |
| 33 | Mito | 63 | Kumamoto |
| 34 | Saga | 64 | Sendai |
| 35 | Maebashi | 65 | <u>Nagasaki</u> |
| 36 | Nishinomiya | 66 | <u>Kyoto</u> |

Table 2-4 B-29 FORMATION/BOMBER STREAM POSITION

Roll 2D:

| Dice | Position in Formation (“Day” & “Night” Missions) |
|-------|--|
| 2* | Lead Bomber |
| 3-10 | Middle |
| 11-12 | Tail Bomber |

* If the bombardier, navigator, and radar operator have all flown eight or more missions, your bomber will assume “Lead Bomber” position on a dice roll of “2-3” (vice just “2”)

Table 2-5 SQUADRON POSITION

Roll 1D:

| Die | Squadron Position (“Day” & “Night” Missions) |
|-----|--|
| 1-2 | High |
| 3-4 | Middle |
| 5-6 | Low |

Table 2-6 EXPECTED JAPANESE FIGHTER RESISTANCE

Roll 1D:

| Die | Expected Mission Resistance Level |
|-----|-----------------------------------|
| ≤ 1 | None |
| 2 | None |
| 3 | Light |
| 4 | Moderate |
| 5 | Heavy |
| ≥ 6 | Heavy |

Modifiers (cumulative):

- -1 if this is a “Night” Mission (Table 2-2A) or target is Iwo Jima (Table 2-1)
- +1 if target is Tokyo or Yokohama

Ω Table 2-7 “NIGHT” MISSION GUNNER ALLOCATION

Roll 1D:

| Die | Gunners This Mission |
|-----|---|
| 0 | No gunners on board; <u>all</u> turrets/guns unarmed |
| 1 | Tail gunner only as “observer”, no other gunners on board; <u>all</u> turrets/guns unarmed |
| 2 | Tail gunner and tail guns (only) armed; no other gunners on board; all other turrets unarmed |
| 3 | All gunners on board; tail guns (only) armed; all other turrets unarmed (other gunners are “observers”) |
| 4 | All gunners on board; tail guns (only) armed; all other turrets unarmed (other gunners are “observers”) * |
| 5 | All gunners on board and all turrets/guns armed |
| 6+ | All gunners on board and all turrets/guns armed |

* if bomber’s squadron position is “Low” (Table 2-5), the two lower turrets (forward and aft) will be armed

Modifiers (cumulative):

- -1 if Expected Japanese Fighter Resistance (Table 2-6) is “None”
- +1 if Expected Japanese Fighter Resistance (Table 2-6) is “Heavy”

Table 2-8 FIGHTER ESCORT AVAILABILITY

Roll 2D:

| Dice | Fighter Escort Availability |
|------|--|
| ≤2-7 | No fighter escort this mission (check the applicable box on the Mission Log Sheet) |
| 8-12 | Fighter escort available (check the applicable box on the Mission Log Sheet) - See Section 4.8 |

Modifiers (cumulative):

- - 4 on Missions #1-15 (i.e., all missions prior to April 1945) (no modifier applies on missions with target Iwo Jima)
- +1 if expected Japanese Fighter Resistance level is “Heavy” (see Table 2-6)
- - 1 if expected Japanese Fighter Resistance level is “None” or “Light” (see Table 2-6)

Table 2-9 FLIGHT LOG GAZETTEER

| Target City | Zone 10 | Zone 11 | Zone 12 | Zone 13 | Zone 14 | Target City | Zone 10 | Zone 11 | Zone 12 | Zone 13 | Zone 14 |
|--------------|------------------|----------|----------|---------|---------|---------------|----------|----------|----------|---------|---------|
| Akashi * | -2 / W | -2 / W | -1 / W-J | | | Mizushima | -2 / W | -1 / W-J | - / J | | |
| Akita | -2 / W-J | -1 / J | - / J | - / W-J | | Moji * | -2 / W | -1 / W-J | - / W-J | | |
| Amagasaki | -2 / W | -1 / W-J | - / W-J | | | Nagaoka * | -2 / W-J | - / J | +1 / J | | |
| Aomori * | -2 / W | -2 / W | -1 / W-J | - / J | - / W-J | Nagasaki | -2 / W | -1 / W | - / W-J | | |
| Chiba * | -2 / W | - / W-J | | | | Nagoya | -2 / W | - / W-J | | | |
| Chiran | -2 / W | -1 / W-J | | | | Namazu * | -2 / W | -1 / W-J | | | |
| Choshi * | -2 / W | -1 / W-J | | | | Narao | -2 / W | -2 / W | -1 / W-J | | |
| Eitoku | -2 / W-J | -1 / W-J | | | | Niigata | -2 / W | -1 / W-J | - / J | - / W-J | |
| Fukui * | -2 / W | -1 / J | +1 / J | | | Nishinomiya * | -2 / W | -1 / W-J | - / W-J | | |
| Fukuoka * | -2 / W | -1 / J | - / W-J | | | Nittagahara | -2 / W | -2 / W | -1 / W-J | | |
| Fukuyama * | -2 / W | -1 / W-J | - / W-J | | | Nobeoka * | -2 / W | -2 / W | -1 / W-J | | |
| Gifu * | -2 / W-J | - / J | | | | Ogaki * | -2 / W | - / W-J | - / J | | |
| Hachioji * | -2 / W | +1 / J | | | | Ogikubu | -2 / W | -1 / J | | | |
| Hamamatsu* | -2 / W | -1 / W-J | | | | Oita * | -2 / W | -2 / W | -1 / W-J | | |
| Handa | -2 / W | -1 / W-J | | | | Okayama * | -2 / W | -1 / W-J | - / J | | |
| Himeji * | -2 / W | -1 / W-J | - / W-J | | | Okazaki * | -2 / W | -1 / J | | | |
| Hiratsuka * | -2 / W-J | -1 / W-J | | | | Okinawa * | -2 / W | -2 / W-O | | | |
| Hiroshima | -2 / W | -1 / W-J | - / W-J | | | Omiya | -2 / W | -1 / J | | | |
| Hitachi * | -2 / W | -2 / W | -1 / W-J | | | Omura | -2 / W | -1 / W-J | - / W-J | | |
| Ibusuki | -2 / W | -1 / W-J | | | | Omura * | -2 / W | -1 / W-J | - / W-J | | |
| Ichinomiya * | -2 / W | - / W-J | - / J | | | Osaka | -2 / W | -1 / W-J | - / W-J | | |
| Imabari * | -2 / W | -1 / W-J | - / W-J | | | Oshima | -2 / W | -1 / W-J | - / W-J | | |
| Isezaki * | -2 / W | - / W-J | +1 / J | | | Ota | -2 / W | -1 / W-J | - / J | | |
| Iwo Jima * | Zone 6: -2 / W-I | | | | | Saeki | -2 / W | -2 / W | -1 / W-J | | |
| Izumi | -2 / W | -1 / W-J | - / W-J | | | Saga * | -2 / W | -1 / W-J | - / W-J | | |
| Kagamigahara | -2 / W | -1 / W-J | - / J | | | Sakai * | -2 / W-J | -1 / W-J | | | |
| Kagoshima * | -2 / W | -1 / W-J | | | | Sasebo | -2 / W | -1 / W-J | - / W-J | | |
| Kanoya | -2 / W | -1 / W-J | | | | Sendai * | -2 / W | -2 / W | -1 / W-J | | |
| Kanoya East | -2 / W | -1 / W-J | | | | Shimizu * | -2 / W | -1 / W-J | | | |
| Kansai | -2 / W | -1 / W-J | | | | Shimonoseki | -2 / W | -1 / W-J | - / W-J | | |
| Kawasaki | -2 / W | +1 / W-J | | | | Shizuoka * | -2 / W | -1 / W-J | | | |
| Kobe | -2 / W | -1 / W-J | - / W-J | | | Tachiarai | -2 / W | -1 / W-J | - / J | | |
| Kochi * | -2 / W | -1 / W-J | | | | Takamatsu * | -2 / W | -2 / W | -1 / W-J | | |
| Kofu * | -2 / W-J | - / J | | | | Tokushima * | -2 / W | -1 / W-J | | | |
| Kokubu | -2 / W | -1 / W-J | | | | Tokuyama * | -2 / W | -1 / W-J | - / W-J | | |
| Kokura | -2 / W | -1 / W-J | - / W-J | | | Tokyo | -2 / W | +1 / W-J | | | |
| Koriyama | -2 / W | -1 / J | - / J | | | Tomioka | -2 / W | -1 / W-J | - / J | | |
| Kudamatsu | -2 / W | -1 / W-J | - / W-J | | | Tomitaka | -2 / W | -2 / W | -1 / W-J | | |
| Kumagaya * | -2 / W | - / W-J | +1 / J | | | Toyama * | -2 / W-J | - / J | +1 / W-J | | |
| Kumamoto * | -2 / W | -1 / W-J | - / W-J | | | Toyohashi * | -2 / W | -1 / W-J | | | |
| Kure | -2 / W | -1 / W-J | - / W-J | | | Tsu * | -2 / W | -1 / W-J | | | |
| Kushikino | -2 / W | -2 / W | -1 / W-J | | | Tsuruga * | -2 / W | -1 / W-J | +1 / W-J | | |
| Kushira | -2 / W | -1 / W-J | | | | Ube * | -2 / W | -1 / W-J | - / W-J | | |
| Kuwana * | -2 / W | - / W-J | | | | Uji-Yamada * | -2 / W | -1 / W-J | | | |
| Kyoto | -2 / W | -1 / W-J | - / J | | | Usa | -2 / W | -1 / W-J | | | |
| Maebashi * | -2 / W | -1 / W-J | - / J | | | Utsunomiya * | -2 / W | -1 / W-J | - / J | | |
| Matsuyama * | -2 / W | -1 / J | | | | Uwajima * | -2 / W | -2 / W | -1 / W-J | | |
| Mikage | -2 / W | -1 / W-J | - / J | | | Wakayama * | -2 / W | -1 / W-J | | | |
| Mito * | -2 / W | -2 / W | - / J | | | Yawata | -2 / W | -1 / W-J | - / W-J | | |
| Miyakonojo | -2 / W | -1 / J | | | | Yokkaichii * | -2 / W | - / W-J | | | |
| Miyazaki | -2 / W | - / W-J | | | | Yokohama | -2 / W | +1 / W-J | | | |
| Target City | Zone 10 | Zone 11 | Zone 12 | Zone 13 | Zone 14 | Target City | Zone 10 | Zone 11 | Zone 12 | Zone 13 | Zone 14 |

Notes: a) The last block containing data in the row of the assigned target city is the “**Designated Target Zone.**” Place the Target Marker on the Strategic Movement Track on that Zone’s space. Any zones beyond will not be entered this mission.

b) The number to the left of the slash is the modification, if any, to the roll on Table 5-1 when determining Japanese Fighter Resistance in the zone. There are Table 6-2 modifiers for asterisked cities (see Note d)) and for Tokyo, Nagoya, and Yokohama (see the Table 6-2 modifiers).

c) The letter(s) to the right of the slash is a code identifying whether the zone is over water or land in that zone. W = Water; J = Japan; I = Iwo Jima; O = Okinawa. This information comes into play when a B-29 is forced down in a zone or the crew must bail out. Where a zone shows two code letters, the player has a choice of where to come down *if* the B-29 is under control. If forced to land or bail out involuntarily in such a zone, roll one die: on a roll of “**1-3**” the first letter applies (i.e., water), on a roll of “**4-6**” the second letter applies (i.e., land).

d) Asterisked (*) cities lack searchlights and heavy AA guns (see Tables 5-14 and 6-2)

3.0. STARTING THE MISSION TABLES

Ω Table 3-1 TAKE-OFF / LANDING TIMES Roll 1D:

During a mission, “Day” or “Night”, status in any given Zone as your aircraft flies can be determined by reference to the “Ditch Out” column (during the outbound leg of the mission) of this Table (*make sure you cross-reference the correct row rolled for on this mission*), or by references to the “Ditch Back” column (during the inbound leg of the mission).

| Mission | Die | Base Take-off | Base Landing | Abort Out | Ditch Out | Ditch Back |
|---------|-------|---------------|--------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Night | “1-3” | Day | Day | Zones 1-2: Day Zones 3-14: Night | Zones 1-3: Day Zones 4-14: Night | Zones 14-4: Night Zones 3-1: Day |
| | “4-6” | Night | Day | Night | All Zones: Night | Zones 14-7: Night Zones 6-1: Day |
| Day | “1-2” | Night | Night | Zones 1-2: Night Zones 3-14: Day | Zones 1-3: Night Zones 4-14: Day | Zones 14-4: Day Zones 3-1: Night |
| | “3-4” | Day | Night | Day | All Zones: Day | Zones 14-7: Day Zones 6-1: Night |
| | “5-6” | Night | Day | Zones 1-3: Night Zones 4-14: Day | Zones 1-5: Night Zones 6-14: Day | All Zones: Day |

Modifier: On Missions #1-10, subtract two (-2) from the die roll

Notes: a) The “Mission” column refers to the result of Table 2-2A. Roll using the “Die” column for that mission as appropriate and follow the row corresponding to the die result. (Remember, Missions #1-10 are *always* “Day”).

b) “Base Take-off” refers to the time of take-off from “20th Air Force Base” in the Marianas. This can affect the roll on Table 3-2 below. Record this time on the Mission Log Sheet.

c) “Base Landing” refers to the time of landing at “20th Air Force Base” in the Marianas assuming your bomber goes all the way to the Designated Target Zone. This can affect the landing roll on Table 8-1. Record this time on the Mission Log Sheet.

d) “Abort Out” refers to the time of landing at “20th Air Force Base” in the Marianas if your bomber aborts (see Section 4.7) and returns to base prior to reaching the Designated Target Zone (if aborting after reaching the Designated Target Zone then follow the “Base Landing” or “Ditch Back” instructions as appropriate). Time of landing is dependent on which zone your bomber is in when it aborts. For example, if the appropriate row of the “Abort Out” column reads “Zones 1-3: Night, Zones 4-14: Day” then that means if your bomber aborts in Zones 1, 2, or 3 while enroute to the target then it will return and land at “20th Air Force Base” at night. An abort enroute to the target in any other zone means a daytime landing in the Marianas.

e) “Ditch Out” refers to a situation in which your bomber has to land immediately (is unable to return to “20th Air Force Base) or the crew has to bail out (see Section 8.0) while enroute to the target. For example, if the appropriate row of the “Ditch Out” column reads “Zones 1-5: Night, Zones 6-14: Day” then if your bomber has to physically land enroute to the target in Zones 1 through 5 it will return and land at “20th Air Force Base” in daylight. Landing or bail out enroute to the target in any other zone means a nighttime landing. Note that “landing” in this context can mean “Landing in Water” (Table 8-3) or, if landing in Zone 6 and Iwo Jima is available for emergencies (Missions #11-35), “Landing on Land” (Table 8-1).

f) “Ditch Back” is the same as “Ditch Out” except that in this situation your bomber reached the Designated Target Zone and is now enroute back to base.

g) If target is Iwo Jima (Table 2-1) (or Truk training mission), then no die roll on this Table is required. All columns in this case are assumed to read “Day” for all game purposes.

Ω Table 3-2 TAKE-OFF Roll 2D:

| Dice | Result |
|------|---|
| 2 | Malfunction – roll for result on Table 3-3 (Malfunction Table) |
| 3-11 | Take off OK – move B-29 into Zone 1 on Strategic Movement Track at “LO” altitude, continue mission |
| 12 | <p>If this is a “Day” take-off (see Table 3-1), <i>no effect</i>, continue mission. If this is a “Night” take-off, roll 2D: “2-8” = Close Call but no effect, take-off OK, move B-29 into Zone 1 on Strategic Movement Track at “LO” altitude, continue mission “9-10” = Accident, roll on Table 3-5 “11-12” = Midair collision, B-29 destroyed, crew KIA</p> <p>Modifiers:</p> <ul style="list-style-type: none"> Any <i>novice</i> pilot (<u>seven</u> or fewer missions) must apply a “+1” modifier to this second dice roll. Any <i>veteran</i> pilot (<u>fourteen</u> or more missions) can apply a “-1” modifier to this second dice roll. |

Ω Table 3-3 TAKE-OFF MALFUNCTION Table

Roll 1D:

| Die | RESULT |
|-----|--|
| 1 | <p>Engine Catches Fire During Run-up</p> <p>Roll 2D to determine engine (FYI, engines are numbered from left to right from the pilot's perspective): "2", "3", or "7" = engine #1 "4", "10", or "11" = engine #2 "5", "6", or "12" = engine #3 "8" or "9" = engine #4</p> <p>Each engine has two fire extinguishers.</p> <p>Now, roll 1D: "1" = Fire out, plane does not fly, no credit to Mission Tour, B-29 repairable by next mission; "2-6" = Fire continues—try again. If second try fails, crew must abandon aircraft, and send for additional ground fire-fighting equipment. Roll 1D again: "1-4" = B-29 repairable by next mission, "5-6" = B-29 irreparably damaged.</p> |
| 2 | <p>Unusual Power Conditions Noted As Throttles Advanced During Take-Off Roll</p> <p>Roll 1D: "1-3" = pilot aborts take-off, "4-6" = pilot continues takeoff.</p> <ul style="list-style-type: none"> If take-off aborted, roll 1D: "1-5" = plane stopped successfully, plane does not fly, no credit to Mission Tour; "6" = Brakes fail, roll on Table 3-5 If take-off continued, roll 1D: "1-4" = mission continues normally; "5-6" = not enough lift, roll on Table 3-5 |
| 3 | <p>Engine Failure on Take-off</p> <p>Roll 2D as in #1 above to determine engine. Mission aborted. Roll 1D: "1-2" = roll for "Landing on Land", Table 8-1 (one engine out); "3-4" = roll for "Landing in Water" (Table 8-3) (one engine out); "5-6" = not enough lift, roll on Table 3-5.</p> |
| 4 | <p>Runaway Propeller After Take-off</p> <p>Roll 2D as in #1 above to determine engine. Then, roll 1D: "1-4" = propeller feathered, roll for "Landing on Land", Table 8-1 (one engine out); "5" = propeller control restored, mission aborted, roll for "Landing on Land", Table 8-1; "6" = feathering fails, windmilling prop, roll for "Landing on Land", Table 8-1, with a -2 modifier.</p> |
| 5 | <p>Engine Fire After Take-off</p> <p>Follow procedure as in #1 above to determine engine and roll for extinguishing fire:</p> <ul style="list-style-type: none"> If fire is successfully extinguished, then mission is aborted, roll for "Landing on Land", Table 8-1 (one engine out). If second attempt to extinguish fire fails, must attempt immediate crash landing. Roll 1D: "1-3" = Roll for "Landing on Land", Table 8-1 (one engine out); "4-5" = Roll for "Landing in Water" (Table 8-3) (one engine out); "6" = Explosion, plane destroyed, crew KIA (note that the plane does not have enough altitude for the crew to safely bail out) |
| 6 | False Alarm. Move B-29 into Zone 1 on Strategic Movement Track at "LO" altitude, and continue mission |

Notes:

- a) With any landing on land roll (Table 8-1) required by Table 3-3, your bomber has sufficient airworthiness to make a reasonably normal turn around and approach for landing. In this case, your bombs have been safely jettisoned over water.
- b) With any landing on water roll (Table 8-3) required by Table 3-3, your airplane's altitude and time in the air is limited and your crew is crash landing into the sea straight ahead. In this case, roll 1D: on a roll of "1-3", bombs are safely jettisoned; "4-6" bombs are still aboard (this may affect the landing result, see Table 8-3).

Ω Table 3-4 CREW INJURY

Roll 2D:

| Dice | RESULT |
|-------|--------------------------------------|
| 2-4 | KIA |
| 5-6 | Seriously Wounded – Rotated Home |
| 7-9 | Lightly Wounded – Flies Next Mission |
| 10-12 | Emerges unscathed! |

Ω Table 3-5 ACCIDENT ON TAKE-OFF

Roll 2D:

| Dice | RESULT |
|-------|---|
| 2-4 | Plane crashes and explodes – all KIA |
| 5-7 | Plane crashes at end of runway – roll for each crew member to see if they survive (Table 3-4) |
| 8-9 | Crew safe and B-29 irreparably damaged – no credit to Mission Tour |
| 10-12 | Crew safe and B-29 repairable by next mission – no credit to Mission Tour |

Modifier: -1 if plane crashes as a result of "not enough lift" per Table 3-3

4.0. THE ZONES - TABLES

Ω Table 4-1 LOW FUEL MOVEMENT

Roll 1D:

| Die | Result |
|-----|---|
| 1-3 | B-29 is out of gas and must land immediately <i>without entering the zone</i> or the crew must bail out on Table 8-4. |
| 4-6 | B-29 may enter the zone (or base square, if applicable) Player Note: this reflects the ability of the flight engineer to milk the tanks for all they're worth, skill by the crew chief in squeezing as much fuel in as capacity allows, and the readiness of the engines to run on fumes. |

Modifiers (cumulative):

- -1 if flight engineer is *novice* (seven or fewer missions)
- -1 if fuel indicators have been damaged (see Table 7-10)
- -1 if both fuel pumps have failed (see Tables 4-9 and 7-4)
- +1 if bomber is currently at "HI" altitude
- +1 if flight engineer is *veteran* (fourteen or more missions)

Table 4-2 WEATHER IN ZONE

Roll 2D:

| Dice | Result |
|------|--|
| 2 | Good; but if at "HI" altitude, and... <ul style="list-style-type: none"> • If on the outbound leg of the mission (enroute to Designated Target Zone) immediately cross off one extra fuel box; • If on the inbound leg of the mission (flying away from the Designated Target Zone), then restore one crossed off fuel box. |
| 3-8 | Good |
| 9 | Poor |
| 10 | Poor; also, if at "HI" altitude, and... <ul style="list-style-type: none"> • If on the outbound leg of the mission (enroute to Designated Target Zone) immediately cross off one extra fuel box; • If on the inbound leg of the mission (flying away from the Designated Target Zone), then restore one crossed off fuel box. |
| 11 | Bad (roll on Table 4-3); also, if at "HI" altitude, and... <ul style="list-style-type: none"> • If on the outbound leg of the mission (enroute to Designated Target Zone) immediately cross off one extra fuel box; • If on the inbound leg of the mission (flying away from the Designated Target Zone), then restore one crossed off fuel box. |
| 12 | Bad (roll on Table 4-3) |

Modifiers (cumulative):

- +1 if previous Zone weather was "Poor"
- +2 if previous Zone weather was "Bad"
- -1 if current altitude is "HI"

Notes: a) Good weather causes possible navigation modifiers on Tables 4-4, 4-5, and 4-6, a possible modifier on Formation Assembly dice roll results on Table 4-10, and a +1 modifier when rolling for target visibility on Table 6-1, and a +1 modifier when rolling for survival at sea on Table 8-6.

b) Poor weather causes a possible modifier on Formation Assembly dice roll results on Table 4-10, a -1 modifier when rolling for fighter escort rendezvous on Table 4-11, a -1 modifier when rolling for Japanese fighters on Table 5-1, a -1 modifier when rolling for Japanese searchlights on Table 5-14, and a -2 modifier on Landing rolls on Tables 8-1 and 8-3.

c) Bad weather causes possible navigation modifiers on Tables 4-4, 4-5, 4-6, 4-7, a possible modifier on Formation Assembly dice roll results on Table 4-10, a -1 modifier when rolling for fighter escort rendezvous on Table 4-11, a -2 modifier when rolling for Japanese fighters on Table 5-1, a -2 modifier when rolling for Japanese searchlights on Table 5-14, a -1 modifier when rolling for target visibility on Table 6-1, and a -3 modifier on Landing rolls on Tables 8-1 and 8-3, and a -1 modifier when rolling for survival at sea on Table 8-6.

Table 4-3 IMPACT OF BAD WEATHER

Roll 1D:

| Die | Result |
|------|--|
| ≤1-4 | Safe passage; continue mission with no impact |
| 5 | Formation Disrupted if currently flying in formation (see Section 4.8). Mark the “Formation Disrupted” box on the Mission Log Sheet. Apply a “+1” modifier on all future rolls during this mission for Japanese Fighter Resistance on Table 5-1. Also apply a -1 die roll modifier on Table 6-6. Also see the note below. Regardless of formation status, see the note below. |
| 6 | See roll # 5 above. Also, there is storm damage to the B-29 (regardless of formation status): roll once on Table 7-9 “Cockpit Instruments” and twice on Table 7-5 “Wings” (once each for both the port and starboard wings). |
| 7 | See roll #6 above. Also, one hit is inflicted on the plane’s electrical system, see Table 7-10, roll #11. |

Modifiers (cumulative)—apply only if not in formation:

- +1 if radar is not working (Table 4-9 or 7-6) or the radar operator is KIA or seriously wounded
- 1 if one extra fuel box is voluntarily crossed off *prior* to the die roll (reflecting willingness to cautiously steer a wide course around the storm front)

Note: There is also a collision risk with flying in bad weather. If the result on Table 4-3 is “5-7”, roll 2D; add three (+3) to the dice roll if B-29 is currently flying in formation (see Section 4.8): “2-11” = no collision, “12” = possible collision, roll 2D again: “2-8” = close call but no effect, “9-10” = shallow dive (B-29 falls out of formation for one turn and then regains formation, if applicable), “11” = steep dive (B-29 falls violently out of formation, roll 1D for each wing: “1-5” = wing holds, B-29 goes to “LO” altitude and must remain out of formation, if applicable, for at least one turn or for how many turns it takes to regain mission altitude, whichever is greater, “6” = wing rips out, crew must bail out on Table 8-5), “12” = Mid-air collision, B-29 destroyed and crew must bail out on Table 8-5.

Ω Table 4-4 PILOTAGE

Roll 1D:

| Die | Result |
|--|--|
| ≤0-3 | No observation possible (no modifier on Table 4-8) |
| 4-6+ | Observation obtained (see Note) |
| Modifiers (cumulative): +2 if B-29 radar is operational / radar operator in position, not SW / KIA +1 if “Weather in Zone” (see Table 4-2) is “GOOD” +1 if at “LO” altitude +1 if current Zone is “Day” (see “Ditch Out/Back” columns, Table 3-1) AND “Weather in Zone” (see Table 4-2) is “GOOD” -1 if at “HI” altitude -1 if “Weather in Zone” (see Table 4-2) is “BAD” -2 if current Zone is “Night” (see “Ditch Out/Back” columns, Table 3-1) -3 if over <u>all</u> -water (Zones 1-5, 7-9, for Zones 10-14 see Table 2-9) | |

Ω Table 4-5 DEAD RECKONING

Roll 1D:

| Die | Result |
|---|---|
| ≤1-2 | Inaccurate calculation (-2 modifier to Table 4-8) |
| 3-6+ | Accurate calculation (+2 modifier to Table 4-8) |
| Modifiers (cumulative): +1 if Navigator is veteran (<u>fourteen</u> or more missions) +1 if “Weather in Zone” (see Table 4-2) is “GOOD” -1 if Navigator is novice (<u>seven</u> or fewer missions) -2 if Navigator is KIA or seriously wounded -1 if Navigator tools are damaged (see Table 7-2) -1 if Gyro Flux Gate Compass is damaged (see Table 7-5) -1 if at “HI” altitude -1 if “Weather in Zone” (see Table 4-2) is “BAD” | |

Note: If “4-6+” is rolled on Table 4-4, roll 1D and modify as show below:

“1” = inaccurate observation (-3 modifier on Table 4-8),

“2-6” = accurate observation (+3 modifier on Table 4-8).

Modifiers:

- 1 if Navigator is novice (seven or fewer missions), KIA or SW
- +1 if Navigator is veteran (fourteen or more missions)
- 1 if Radar Operator is novice (seven or fewer missions) (apply this modifier only if Radar modifier was necessary for “Observation Taken” result—i.e., if the modifier is removed, then the result would have been “No observation possible”).
- +1 if Radar Operator is veteran (fourteen or more missions) (apply this modifier only if Radar modifier was necessary for “Observation Taken” result—i.e., if the modifier is removed, then the result would have been “No observation possible”).

Ω Table 4-6 CELESTIAL NAVIGATION

Roll 1D:

| Die | Result |
|--|--|
| ≤1-3 | No observation possible (no modifier to Table 4-8) |
| 4-6+ | Possible Observation obtained (see Note below) |
| Modifiers (cumulative): -1 if Navigator is KIA or seriously wounded -1 if Navigator tools are damaged (see Table 7-2) -1 if at “LO” altitude -1 if “Weather in Zone” (see Table 4-2) is “BAD” +1 if “Weather in Zone” (see Table 4-2) is “GOOD” +1 if at “HI” altitude +1 if current Zone is “Night” (see “Ditch Out/Back” columns, Table 3-1) | |

Note: If the result is “4-6+”, roll 1D (modify the die roll by -1 if Navigator is KIA or Seriously Wounded):
 “1” = inaccurate observation (-1 modifier on Table 4-8)
 “2-6” = accurate observation (+1 modifier on Table 4-8)

Ω Table 4-7 RADIO NAVIGATION

Roll 1D:

| Die | Result |
|--|---|
| ≤1-3 | No usable signal (no modifier to Table 4-8) |
| 4-6+ | Accurate signal (+1 modifier to Table 4-8) |
| Modifiers (cumulative): -3 if Missions #1-10 <u>or</u> if LORAN damaged (see Table 7-2) -2 in Zones 8-14 (Missions #11-25) (do <u>not</u> apply if LORAN damaged) -1 if “Weather in Zone” (see Table 4-2) is “BAD” +1 if Radio Compass is able, see Note below +1 in Zones 8-14 (Missions #26-35) (do <u>not</u> apply if LORAN damaged) +1 if current Zone is “Night” (see “Ditch Out/Back” columns, Table 3-1) (do <u>not</u> apply to Missions #1-10 or if LORAN damaged) +2 in Zones 1-7 (Missions #11-25) (do <u>not</u> apply if LORAN damaged) | |

Note: The Radio Compass is usable if undamaged (see Tables 7-1 and/or 7-3) and the B-29 is in Zone 1 or in Zone 6 (on Missions #11-35 only). It may also be usable in Zones 10-14: in these zones, roll 1D:
 “1-5” = radio compass unusable (no identifiable signal),
 “6” = radio compass usable (good signal received from Japanese radio station).

Ω Table 4-8 COURSE DETERMINATION

Roll 1D:

| Die | Result |
|------|---|
| ≤1-2 | Off Course (see Section 4.5. c.) |
| 3-6+ | On Course (see Section 4.5. c.) |

Modifiers (cumulative):

- -3 if “Inaccurate Observation” result obtained from Note to Table 4-4
- -2 if “Inaccurate Calculation” result obtained from Table 4-5
- -1 if “Inaccurate Observation” result obtained from Note (b) to Table 4-6
- +1 if “Accurate Observation” result obtained from Note (b) to Table 4-6
- +1 if “Accurate Signal” result obtained from Table 4-7
- +2 if “Accurate Calculation” result obtained from Table 4-5
- +3 if “Accurate Observation” result obtained from Note to Table 4-4

Ω Table 4-9 RANDOM EVENT

Roll 2D:

| Dice | Result |
|------|---|
| 2 | Cockpit Windows Frosting (this event applies at “HI” altitude <u>only</u> —treat as “no effect” and disregard if at any other altitude). See Note (a). |
| 3 | Radar Malfunction (this event applies at “HI” altitude <u>only</u> —treat as “no effect” and disregard if at any other altitude). See Note (b). |
| 4 | Fuel Transfer Pump Failure. See Note (c). |
| 5 | Oil Tank Failure. See Note (d). |
| 6 | Engine Malfunction. See Note (e). |
| 7 | Flight Engineer Reports New Fuel Status (this event only applies on the inbound leg of the mission, i.e., flying <i>away</i> from the Designated Target Zone; if on the outbound leg of the mission, i.e., enroute to Designated Target Zone, then treat as “no effect” and disregard). See Note (f). |
| 8 | Miscellaneous Malfunction. Roll 1D: “1-3” = roll on Table 7-9 “Cockpit Instruments”, “4-6” = Roll on Table 7-10 “Engineer Instruments” (treat as one shell hit on rolled-for area). (<i>This event may be rolled for any number of times.</i>) |
| 9 | Bomb Bay Door Malfunction (treat as “no effect” and disregard if bomb run has already been accomplished). See Note (g). |
| 10 | Bomb Release Mechanism Failure (treat as “no effect” and disregard if bombs have already been released). See Note (h). |
| 11 | Hydraulic Pump Failure. See Note (i). |
| 12 | Gunner Blister Blows Out (this event applies at “HI” altitude <u>only</u> —treat as “no effect” and disregard if at any other altitude). See Note (j). |

Notes to Table 4-9:

- a) The B-29 must either descend to “LO” altitude to defrost the windows and abort mission or stay at “HI” altitude and risk collision. Collision risk is much higher in formation flying. Roll 2D each turn beginning with the first turn of frosting (add 3 to the dice roll if B-29 is currently flying in formation, see Section 4.8): “2-11” = no collision, “12+” = possible collision. Roll 2D again: “2-8” = close call but no effect, “9-10” = shallow dive (B-29 falls out of formation, if applicable, for one turn and then regains formation), “11” = steep dive (B-29 falls violently out of formation, roll 1D for each wing: “1-5” = wing holds, B-29 goes to “LO” altitude and must remain out of formation, if applicable, for at least one turn or for how many turns it takes to regain mission altitude, whichever is greater, “6” = wing rips out, crew must bail out on Table 8-5), “12” = Mid-air collision, B-29 destroyed and crew must bail out on Table 8-5. Window frosting may affect formation assembly (see Table 4-10 below). “Evasive Action” (see Section 5.7) is not permitted if windows are frosted. (*If this event is rolled for again, frosting problem has worsened and B-29 must abort and descend to “LO” altitude.*)

Design Note: Despite several fix attempts (e.g., cockpit fans, gas heaters) window frosting at high altitude was a recurring problem.

- b) Apply a +1 modifier when rolling on Table 4-3, and a –1 modifier on Table 6-6. A non-functional radar also negates modifiers to Table 6-6. Pilot may abort mission. (*No additional effect if event is rolled for again.*)

Design Note: Because the B-29 radar itself was mounted in unpressurized sections of the airplane, malfunction due to cold temperatures and electrical shorts were a problem at high altitudes.

- c) When attempting to cross off an auxiliary fuel box per 4.3(b), roll 1D first: “1-4” = auxiliary fuel tank box may be crossed off normally, “5-6” = no auxiliary fuel tank box may be checked off this turn. *This event may be rolled for a second time (no additional effect if rolled for a third or more times)*, meaning *both* of the plane’s fuel transfer pumps have failed. If both pumps are not operating, no auxiliary fuel tank boxes may be checked off (the tanks may be jettisoned). Also, see the “Fuel Tank” damage result (see Table 7-5). Note that fuel pumps may also receive damage on Table 7-4.

Design Note: Fuel transfer was accomplished by two reversible, electrically driven pumps located under the mid-wing section between the forward and aft bomb bays and controlled by toggle switches on the engineer’s stand.

- d) Roll 2D to determine engine:

| “2”, “3”, or “7” | “4”, “10”, or “11” | “5”, “6”, or “12” | “8” or “9” |
|------------------|--------------------|-------------------|------------|
| Engine #1 | Engine #2 | Engine #3 | Engine #4 |

Then, roll 1D, and add one (+1) to this roll if this is a “Night” Mission (reflecting the difficulty in visually identifying the leak, and reacting in a timely manner): “1-4” = propeller feathered (one engine out, see Section 7.2), pilot may abort mission; “5-6+” = feathering fails, windmilling prop.

- a. If feathering fails, roll 1D again: “1-5” = no effect, pilot must abort, “6” = engine catches fire, roll 1D to attempt to extinguish: “1” = Fire out, pilot must abort; “2-6” = Fire continues—try again. If the second try fails and at ‘LO’ altitude, the player must decide if the crew immediately bails out on Table 8-4, or continues flying with a burning engine. If the crew does not immediately bail out, then roll one die:

“1-2” = fire continues, engine is considered “out” (i.e., inoperable), see rule 7.2;

“3-4” = fire spreads, immediately roll for bail out on Table 8-4;

“5” = fire spreads rapidly and control is lost, roll for uncontrolled bail out on Table 8-5;

“6” = explosion, plane is destroyed, all crewmembers are KIA.

For engine fire at “MED” or “HI” altitude (only), an attempt may first be made to extinguish the fire by diving (any number of crewmembers may bail out on Table 8-4 first). When diving, roll one die—if the result is less than or equal to the number of wing root hits on either wing (not both wings added together), the wing snaps off in the dive; roll for uncontrolled bail out on Table 8-5. Otherwise, roll 1D again, subtract one (-1) if diving from “HI” altitude:

“1” (or less) = fire extinguished, plane “Out of formation” (if applicable), at “LO” altitude, engine is considered “out” (i.e., inoperable), see rule 7.2;

“2” = same as roll #1 except fire continues; in this case, immediately consult the verbiage above for uncontrollable engine fire at “LO” altitude (i.e., the choice now is bail out or risk sticking with the plane)

“3-4” = fire spreads, roll for bail out on Table 8-4;

“5-6” = plane out of control, roll for uncontrolled bail out on Table 8-5.

In either case, if a ‘fire continues’ result is received, re-roll on all subsequent turns to see if fire spreads, results in explosion, or merely festers. The crew may always bail out prior to making this die roll.

- b. If prop is windmilling and there is no fire, roll 1D each turn, beginning with the current turn: “1-5” = No effect, prop continues to windmill, “6” = runaway propeller. In the event of a runaway propeller, immediately repeat the die roll per Note a. above to see if the engine catches fire. Continue to check for fire each turn as long as the propeller continues to runaway. A runaway propeller causes a -3 modifier on Landing rolls on Tables 8-1 and 8-3.
- c. Each turn that the runaway prop continues and there is no fire (make the fire check first each turn before continuing this procedure), roll 1D: “1” = runaway halted, propeller returns to windmilling, beginning with the next turn return to the procedure in Note b., “2-3” = runaway continues, no additional effect this turn, “4” = runaway continues, one wing root hit is inflicted on affected wing (effect of excessive vibration), “5-6” = centrifugal explosion of the propeller, destruction of the engine, go to Note d.
- d. In the event of centrifugal explosion of the propeller/destruction of the engine, roll 1D; subtract one (-1) for *each* of the following conditions (cumulatively) that may apply—either wing aileron out (-2 if both out), rudder out: “1” = aircraft falls out of control, crew must immediately bail out on Table 8-5, “2-6” = damage due to flying pieces of propeller and/or engine. Roll 1D again:
 - If this an outboard engine (engine #1 or #4), apply the following: “1-4” = superficial damage (e.g., propeller spins harmlessly away), “5” = inboard engine (same wing) damage, see result #10 on Table 7-5 for the affected engine (treat as one engine hit), “6” = damage to inboard engine (same wing) and fuselage. See result #10 on Table 7-5 for the affected engine (treat as one engine hit), then inflict one wing root hit on the affected wing, *then* roll 1D again for the number of hits on the Nav/Radio Compartment—roll that many times on Table 7-2.
 - If this an inboard engine (engine #2 or #3), apply the following: “1-2” = superficial damage (e.g., propeller spins harmlessly away), “3-4” = outboard engine (same wing) damage, see result #10 on Table 7-5 for the affected engine (treat as one engine hit), “5-6” = damage to fuselage: inflict one wing root hit on the affected wing then roll 1D again for the number of hits on the Nav/Radio Compartment—roll that many times on Table 7-2.

Note that a windmilling propeller causes a -2 modifier on Landing rolls on Tables 8-1 and 8-3.

(This event may be rolled again for any operating engine; no additional effect if a previously failed engine is rolled for.)

- e) Roll 2D to determine engine as in Note (d) above. Then roll 1D; add one (+1) if at “HI” altitude, also add one (+1) (cumulative) if engine cooling controls have been damaged (see Table 7-10): “1-3” = engine returned to full operation; “4-5” = (disregard if at “LO” altitude) engine running but not at full power (may stay in, or join, formation—if applicable—only by jettisoning bomb load; pilot may choose to abort mission); “6” = roll 1D again, subtract one (-1) if this same engine is already not at full power from previous random event: “1” = engine fire, “2-6” = engine quits.

- a. If engine catches fire, roll 1D to attempt to extinguish: “1” = Fire out, pilot must abort; “2-6” = Fire continues—try again. If the second try fails and at “LO” altitude, crew must immediately bail out on Table 8-4. If the second try

fails and at 'LO' altitude, the player must decide if the crew immediately bails out on Table 8-4, or continues flying with a burning engine. If the crew does not immediately bail out, then roll one die:

"1-2" = fire continues, engine is considered "out" (i.e., inoperable), see rule 7.2;

"3-4" = fire spreads, immediately roll for bail out on Table 8-4;

"5" = fire spreads rapidly and control is lost, roll for uncontrolled bail out on Table 8-5;

"6" = explosion, plane is destroyed, all crewmembers are KIA.

For engine fire at "MED" or "HI" altitude (only), an attempt may first be made to extinguish the fire by diving (any number of crewmembers may bail out on Table 8-4 first). When diving, roll one die—if the result is less than or equal to the number of wing root hits on either wing (not both wings added together), the wing snaps off in the dive; roll for uncontrolled bail out on Table 8-5. Otherwise, roll 1D again, subtract one (-1) if diving from "HI" altitude:

"1" (or less) = fire extinguished, plane "Out of formation" (if applicable), at "LO" altitude, engine is considered "out" (i.e., inoperable), see rule 7.2;

"2" = same as roll #1 except fire continues; in this case, immediately consult the verbiage above for uncontrollable engine fire at "LO" altitude (i.e., the choice now is bail out or risk sticking with the plane)

"3-4" = fire spreads, roll for bail out on Table 8-4;

"5-6" = plane out of control, roll for uncontrolled bail out on Table 8-5.

In either case, if a 'fire continues' result is received, re-roll on all subsequent turns to see if fire spreads, results in explosion, or merely festers. The crew may always bail out prior to making this die roll.

- b. If engine quits, roll 1D for feathering: "1-4" = propeller feathered (one engine out; see Section 7.2), pilot may abort mission; "5-6" = feathering fails, windmilling prop. Follow the procedures given in **Notes a through d** of event #5 above in the event of windmilling prop.

(This event may be rolled again for any fully or partially operating engine; no additional effect if a previously failed engine is rolled for.)

- f) Roll 1D; add one (+1) if the flight engineer is a *novice* (seven or fewer missions), KIA, or seriously wounded, or if the fuel indicators have been damaged (see Table 7-10); subtract one (-1) if the flight engineer is a *veteran* (fourteen or more missions): "1-2" = plane has *more* fuel remaining than previously calculated, "3-6" = plane has *less* fuel remaining than previously calculated. In either case, roll 1D again and halve (round up) the result. The final modified number is the number of fuel boxes (see Section 4.3) that may be restored (cross-offs removed) if there is *more* fuel remaining than previously calculated, or the number of fuel boxes that must be immediately crossed off now if there is *less* fuel remaining than previously calculated. *(This event may be rolled for—with fuel "lost" or "regained" as the flight engineer repeatedly updates his calculations—any number of times).*

- g) Roll 1D: "1-3" = forward bomb bay door(s), "4-6" = aft bomb bay door(s). Roll 1D again: "1-3" = bomb bay door(s) fail to open on bomb run, jammed shut (halve the bombing accuracy percentage, see Table 6-7; the bomb run is automatically "Off Target" if *both* forward and aft bomb bay doors have malfunctioned), "4-6" = bomb bay door(s) fail to close following bomb run. (In either case, the bomber must permanently leave formation if applicable). If the bomb bay door(s) jams closed, two manual attempts to actuate the door(s) may be attempted. The first is by the pilot in the cockpit, roll 1D: "1-2" = door(s) successfully opened, "3-6" = door(s) remain jammed. Whether jammed open or shut the bomber must permanently leave formation (if applicable) at this point. Any second attempt to open door(s) jammed shut—or *any* attempt to *close* doors jammed *open*—requires one functioning crewmember (normally the flight engineer) spend one turn (beginning no earlier than the turn following the bomb run), in the bomb bay (see Section 4.2 for pressurization rules, if applicable) to attempt emergency operation of the door using a portable electric motor installed for the purpose. Roll 1D: "1-3" = door(s) successfully opened/closed, "4" = motor burns out (this may also affect emergency flap operation—see Table 7-9, "Flaps" result [note e.]), door(s) remains stuck open/closed, "5-6" = door(s) jammed open/closed. In either case, no further attempts are possible. If bomb bay doors fail to open (thus preventing bomb drop), fuel consumption (see Section 4.3[a]) remains **two** boxes per zone entered (note that consumption is still just *one* box marked off for turn-around turn). If bomb bay doors fail to close, speed is reduced due to drag—two turns per zone beginning immediately (i.e., three turns total in the Designated Target Zone—one for flight in, two for flight out—with one fuel box marked off for each extra turn spent in each zone). Also, there is a negative modifier for "Landing in Water" (Table 8-3).

(This event may be rolled again prior to the bomb run for the other bomb bay; no additional effect if a previously affected bomb bay is rolled for again.)

- h) Some or all bombs fail to drop during the bomb run. Bombardier or pilot may attempt emergency release of bombs on a die roll of “1-2” but the bomb run is automatically off-target (**exception:** for U/A attacks apply a -2 die roll modifier on Table 6-6). If unsuccessful in manual attempt to drop bombs on bomb run, plane must leave formation (if applicable) and attempt to jettison. Roll 1D: “1-2” = bombs successfully jettisoned, “3-6” attempt unsuccessful. A jettison attempt may be made once per turn. Subtract one (-1) from the roll if a crewmember is present in the bomb bay (see Section 4.2 for pressurization rules, if applicable) during the attempt (*i.e., simulating the attempt to drop bombs singly by manually tripping the release lever on each bomb shackle*). If bombs are still on-board upon reaching base, see note c. to Table 8-1, pilot must remain aboard for landing attempt (remainder of crew may bail out). If bombs are still aboard in a ditching attempt, apply a “-1” modifier to the landing roll on 8-3 but entire crew may bail out. (No additional effect if already rolled for.) Until all bombs are successfully jettisoned, fuel consumption (see Section 4.3[a]) remains **two** boxes per zone entered (note that consumption is still just *one* box marked off for turn-around turn). This note also applies to any attempt to jettison the auxiliary bomb bay fuel tanks if installed (see Section 2.3). Any fuel tank jettison attempt must be made separately from bombs. (**No additional effect if event is rolled for again.**)
- i) Brake reliability on landing is reduced. Apply a -2 die roll modifier when rolling on Table 8-1, “Landing on Land.” (**No additional effect if event is rolled for again.**)
- j) Roll 1D: “1-2” = Left Gunner Blister blows out, roll for wound for left gunner on Table 7-13, “3-4” = Right Gunner Blister blows out, roll for wound for right gunner on Table 7-13, “5-6” = CFC Blister blows out, roll for wound for CFC on Table 7-13. Then roll for “Explosive Decompression”, Table 7-11. Pressurization capability is “compromised” in Waist Compartment. Pilot may abort mission. (**No additional effect if event is rolled for again.**)

Table 4-10 FORMATION ASSEMBLY Roll 2D:

| Dice | Result |
|--|--|
| 2 | If “Weather in Zone” (Table 4-2) is “BAD” or “POOR”, there is difficulty assembling the formation. Apply a “+1” modifier on all future rolls during this mission for Japanese fighters on Table 5-1. In addition, roll 1D: “1-3” = cross off one fuel box, “4-6” = no additional effect. |
| 3 | Formation Drop-outs. Roll 1D: “1-3” = you are now lead bomber, “4-6” = you are now tail bomber. |
| 4 | Difficulty assembling the formation. Apply a “+1” modifier on all future rolls during this mission for Japanese fighters on Table 5-1. In addition, roll 1D: “1-3” = cross off one fuel box, “4-6” = no additional effect. |
| 5-6 | Formation assembly uneventful. |
| 7 | If “Weather in Zone” (Table 4-2) is “GOOD”, assembly goes well and a tight formation is built. Apply a “-1” modifier when rolling for Japanese fighters on Table 5-1. |
| 8-9 | Formation assembly uneventful. |
| 10 | Delay in assembling the formation. Cross off one fuel box (see Section 4.3). EXCEPTION: treat this roll as “Formation Assembly Uneventful” on Missions #1-10. |
| 11 | If “Weather in Zone” is “BAD”, there is difficulty assembling the formation. Apply a “+1” modifier on all future rolls during this mission for Japanese fighters on Table 5-1. In addition, roll 1D: “1-3” = cross off one fuel box, “4-6” = no additional effect. |
| 12 | Possible mid-air accident. Roll 2D; add two (+2) if “Weather in Zone” (Table 4-2) is “BAD”, add one (+1) if “Weather in Zone” (Table 4-2) is “POOR”, add one (+1) if windows frosted (see Table 4-9, result #2) (modifiers are cumulative): “2-11” = close call but no effect; “12” = collision. B-29 destroyed and crew must bail out on Table 8-5. |
| On dice roll results #2, 7, and 11, if the “Weather in Zone” is other than what’s indicated then formation assembly is normal (“formation assembly uneventful”). | |

Table 4-11 FIGHTER ESCORT RENDEZVOUS Roll 1D:

| Die | Missions #1-15 to Japan | Missions #1-10 to Iwo Jima | Missions #16-35 to Japan | Modifiers (cumulative): |
|---|-------------------------|----------------------------|--------------------------|--|
| 1 | Rendezvous Missed | Rendezvous Missed | Rendezvous Missed | - 2 if “Weather in Zone” (Table 4-2) is “BAD” - 1 if “Weather in Zone” (Table 4-2) is “POOR” - 2 if “Rendezvous missed” in previous Zone |
| 2 | Rendezvous Missed | Rendezvous Missed | P-51 | |
| 3 | Rendezvous Missed | P-38 | P-51 | |
| 4 | F6F Hellcat | P-38 | P-51 | |
| 5 | F6F Hellcat | P-38 | P-51 | |
| 6 | F6F Hellcat | P-38 | P-51 | |
| Note: Place the appropriate Escort Fighter marker in the proper box of the Japanese Fighter Placement Chart. | | | | |

5.0. COMBAT TABLES

Table 5-1 JAPANESE FIGHTER RESISTANCE

Roll 2D:

| Dice | Result* | |
|------|----------|---|
| ≤2 | None | Paragraph 5.2 of the Rule Book describes the procedure for determining on a Day mission whether a fighter attacks your aircraft (after determining the actual fighter resistance in a zone during a particular turn). |
| 3 | None | |
| 4 | Light | |
| 5 | Light | |
| 6 | Light | |
| 7 | Moderate | |
| 8 | Moderate | |
| 9 | Moderate | |
| 10 | Heavy | |
| 11 | Heavy | |
| 12+ | Heavy | |

Modifiers (cumulative):

- +1 if expected Japanese Fighter Resistance level is “Heavy” (see Table 2-6)
- - 1 if expected Japanese Fighter Resistance level is “None” (see Table 2-6)
- - / + number to the left of the slash in appropriate zone for designated target on Table 2-9 “Flight Log Gazetteer”
- - 2 if currently at “HI” altitude (see 4.1(b))
- +1 if currently at “LO” altitude (see 4.1(b)) (“Day” Missions only)
- - 1 if “Weather in Zone” (see Table 4-2) is “POOR”
- - 2 if “Weather in Zone” (see Table 4-2) is “BAD”
- - 1 if tight formation created on formation assembly (see Table 4-10)
- +1 if “difficulty assembling formation” on formation assembly (see Table 4-10)
- - 1 if F6F Hellcat Fighter Escort marker is on Japanese Fighter Placement Chart (see Table 4-11)
- - 1 if P-38 Fighter Escort marker is on Japanese Fighter Placement Chart (see Table 4-11)
- - 2 if P-51 Fighter Escort marker is on Japanese Fighter Placement Chart (see Table 4-11)
- +1 if on the **inbound** leg of the mission (flying away from the Designated Target Zone)
- +2 if “out of formation” (see 4.8(b)) (“Day” Missions only)
- +1 if one or more “Formation Disrupted” results received on Table 4-3 from “Bad” weather while in formation anytime during this mission (do not apply this modifier if “Out of Formation” or if this is a “Night” Mission)
- - 1 if Iwo Jima is American-controlled (Missions #11-35)

IMPORTANT NOTE: A result of “None” always means **NO** Japanese fighters encountered this turn.

Table 5-2 JAPANESE FIGHTER APPEARANCE

Roll 2D:

| Dice | Result |
|-------|--|
| 1 | <i>Roll again</i> |
| 2-3 | Kawasaki Ki-45 <i>Toryu</i> (“ <i>Dragon Slayer</i> ”) NICK |
| 4 | Kawasaki Ki-61 <i>Hien</i> (“ <i>Flying Swallow</i> ”) TONY |
| 5-6 | Mitsubishi A6M5 Type “Zero”, Model 52 ZEKE |
| 7 | Nakajima Ki-84 <i>Hayate</i> (“ <i>Hurricane</i> ”) FRANK |
| 8 | Nakajima Ki-44 <i>Shoki</i> (“ <i>Demon</i> ”) TOJO |
| 9 | Nakajima Ki-43 <i>Hayabusa</i> (“ <i>Peregrine Falcon</i> ”) OSCAR |
| 10-12 | Kawanishi N1K2-J <i>Shiden</i> (“ <i>Violet Lightning</i> ”) GEORGE |
| 13 | <i>Japanese fighters slow taking off - No fighter combat this turn</i> |

Modifiers:

- +1 if at “HI” altitude
- - 1 if at “LO” altitude

Table 5-3 AREA OF ATTACK

Roll 2D:

| Dice | Result |
|------|--|
| 2 | Roll again. Also, see note (a). |
| 3 | Special Attack Tactics. Roll 1D: “1” = <i>Baka</i> suicide bomb, see note (b), “2-3” = Ramming attack, see note (c), “4” = Rockets launched into bomber formation, see note (d), “5-6” = Japanese bombs dropped on formation from above, see note (e) |
| 4 | 3 o’clock (place proper fighter from Table 5-2 on Japanese Fighter Placement Chart), go to Table 5-4 |
| 5 | Coordinated (multi-plane) attack. Roll 2D, halve (round down) the result = total number of attacking planes (all are the same type as originally rolled for on Table 5-2). Roll again on this table that many times for each plane’s area of attack. If this result (#5) is rolled for again while rolling for the area of attack of a coordinated fighter attack, see note (f). |
| 6 | 12 o’clock (place proper fighter from Table 5-2 on Japanese Fighter Placement Chart), go to Table 5-4 |
| 7 | 1:30 o’clock (place proper fighter from Table 5-2 on Japanese Fighter Placement Chart), go to Table 5-4 |
| 8 | 10:30 o’clock (place proper fighter from Table 5-2 on Japanese Fighter Placement Chart), go to Table 5-4 |
| 9 | 6 o’clock (place proper fighter on Japanese Fighter Placement Chart), go to Table 5-4, but see note (g) first |
| 10 | 9 o’clock (place proper fighter from Table 5-2 on Japanese Fighter Placement Chart), go to Table 5-4 |
| 11 | 6 o’clock (place proper fighter on Japanese Fighter Placement Chart), go to Table 5-4, but see note (g) first |
| 12 | Roll again. Also, see note (h). |

Notes:

a) Apply on a Table 5-3 roll of “2” only. In addition to fighter from Table 5-2, if B-29 is “Low” Squadron Formation (see Table 2-5) then there is also an attack by a **Frank** in VERTICAL CLIMB. If B-29 is “High” Squadron Formation (or “Out of Formation”) at “LO” or “MED” altitude, then there is an attack by a **Frank** in VERTICAL DIVE. There is no additional fighter if in “Medium” Squadron Formation. (No additional effect if this note is rolled for again on the same attack.)

b) Fighter feints attack then dives away. On Missions #15-35, B-29 is attacked instead by a **Baka** suicide rocket (otherwise, no fighter combat this turn). *Bakas* always attack from the 6 o’clock LEVEL position. Do not roll on Table 5-5 for “Fighter Pilot Status”. *Bakas* can be fired at normally (they do not fire back) and are hit on a roll of “11-12” (no modifiers allowed *except* for “Evasive Action”, see Section 5.7) and destroyed on a roll of “7-12.” *Bakas* cannot be damaged (not in game terms, anyway). If destroyed, the explosion may still cause damage to the B-29, roll 1D: “1-4” = roll 2x on Table 7-5 for both wings, and 3x on Table 7-8 (Tail), “5-6” = superficial damage. If *Baka* is not hit and destroyed, roll 2D for collision (subtract one from the roll if the B-29 took “Evasive Action” during combat, see Section 5.7): “≤2-10” = *Baka* misses or falls short, “11-12” = *Baka* hits B-29, bomber explodes, entire crew KIA.

Design Note: The Yokosuka MXY-7 Okha (“Cherry Blossom”), Allied codenamed Baka (the Japanese word for “fool” or “idiot”), was a manned flying bomb, normally carried underneath a Mitsubishi G4M “Betty” bomber. When released, the pilot would ignite solid fuel rocket motors which propelled the Baka at tremendous speeds (up to 600 mph) although its range was limited. There are a number of anecdotal accounts of B-29 encounters with the Baka, and bomber crews were briefed to watch out for them, but there is no Japanese record of them being used in an air-to-air role (the Baka was designed for anti-ship missions; an air-to-air role would certainly have been a very inefficient use of a limited asset). They are included in the game for historical interest and as a concession to bomber crewman accounts attesting to their use.

c) Roll on Table 5-3 again. (No **additional** effect if this note is rolled for again on the same attack.) Mark the fighter with a “RAM” counter. Resolve combat normally, Tables 5-4 through 5-8. Do not resolve Japanese offensive fire (Table 5-9). If the fighter survives, it will attempt to ram the B-29. Roll 2D (add +1 if Fighter Pilot Status from Table 5-5 is “Ace”, subtract -1 if Fighter Pilot Status is “Green” or if the B-29 took “Evasive Action” during combat, see Section 5.7): “≤2-10” no collision, no successive attack (see Section 5.6), “11-12+” mid-air collision, see Section 5.5 for effect.

Design Note: In late 1944, the Japanese formed dedicated ramming units with fighters stripped of armor and armament for improved performance. Interestingly, some or all of these units were later disbanded (although individual pilots still used the tactic) apparently for lack of volunteers—apparently, not all Japanese pilots were as eager to die for the Emperor in 1945 as is popularly believed.

d) Fighter feints attack then dives away. Japanese launch rockets into bomber formation (if “out of formation”, treat as “no fighter combat this turn”). Roll 1D: “1” = x2 medium flak (see Table 6-3), “2-6” = x2 light flak (see Table 6-3).

Design Note: The Japanese rarely used air-to-air rockets—a contrast to German success with the tactic.

e) Fighter pulls away and releases bombs into formation from above (if “out of formation”, treat as “no fighter combat this turn”). Roll 1D: “1-2” = treat as x2 medium flak (see Table 6-3), “3-6” = treat as x2 light flak (see Table 6-3).

Design Note: The Japanese used air-to-air bombs much more frequently than rockets. The majority of these attacks were with 100-pound phosphorous bombs, but fragmentation, demolition, and incendiary explosives were also used.

f) Fighter is driven off by other B-29s, possible hits on your B-29 by other bombers (roll again on Table 5-3 if “out of formation”). Roll 1D: “1-5” = no hits, “6” = hit. If hit, roll 1D for number of shell hits, then roll 2D for location of each: “2” = nose, “3” = Nav/Radio, “4” = Waist, “5” = fwd bomb bay, “6” = starboard wing, “7” = superficial damage, “8” = port wing, “9” = aft bomb bay, “10” = tail, “11” = utility, “12” = nose. Resolve hit effect(s) normally on the applicable Damage Tables (see Section 7.1)

g) **Oscar, Zeke, Tony, and Nick** fighters are ineligible for attack from this position if (and only if) all of the following apply: (1) B-29 is “out of formation,” and (2) all four engines are operating normally, and (3) bombs have been dropped, and (4) tail gunner or central fire controller is in position and not KIA or seriously wounded, and (5) B-29 intercom is functioning. (If all five of these conditions apply, treat as “no fighter combat this turn”).

Design Note: There are a lot of “ands” in this rule; however, the B-29’s maximum speed was greater than that of all these fighters. If the conditions listed apply, then we can assume the bomber has enough warning and freedom to maneuver to outrun pursuit.

h) Apply on a Table 5-3 roll of “12” only. In addition to fighter from Table 5-2, if B-29 is “**Lead**” bomber (see Table 2-4), then there is also an attack by one **Tony** from 12 o’clock, roll on Table 5-4 to determine angle of attack; if B-29 is “**Tail**” bomber (see Table 2-4), then there is also an attack by one **Frank** from 6 o’clock, roll on Table 5-4 to determine angle of attack; if “Out of Formation” both attacks occur. (No additional effect if this note is rolled for again on the same attack.) If none of these conditions apply, and B-29 is not “Out of Formation”, then there are “Formation Casualties”: roll 1D: “1-2” = B-29 is now lead bomber, “3-4” = B-29 is now tail bomber, “5-6” = no change.

Table 5-4 ANGLE OF ATTACK

Roll 1D:

| Dice | Result |
|------|--------|
| 1-2 | Low |
| 3-4 | Level |
| 5-6 | High |

Modifiers:

- +1 for attacks from 10:30, 12, or 1:30 o’clock areas of attack
- -1 for attacking fighters at 6 o’clock area of attack

Note: No more than one Japanese fighter may occupy the same area and angle of attack. If necessary, roll again on Table 5-4—or, if more than three fighters are at the same position, Table 5-3.

Table 5-5 FIGHTER PILOT STATUS

Roll 2D:

| Dice | Result |
|------|---|
| 2-7 | Green: B-29 +1 to hit fighter (Table 5-7), fighter –1 to hit B-29 (Table 5-9) |
| 8-11 | Average (no modifications) |
| 12 | Ace: B-29 –1 to hit fighter (Table 5-7), fighter +1 to hit B-29 (Table 5-9) |

Modifier: +1 for attack by **George** fighter

Table 5-6 B-29 DEFENSIVE FIRE ALLOCATION *(if intercom out, see rule 5.3.B)*

| Fighter Attack From: | B-29 Gun with Field of Fire | Crew Position Eligible to Fire <i>(see rule 5.3.B for meaning of parentheses)</i> |
|----------------------|---|--|
| 12 High | Forward Upper Turret | Bombardier (1-2), CFC (3-6) |
| | Aft Upper Turret | Bombardier (1-3), CFC (4-6) |
| 12 Level | Forward Upper Turret | Bombardier (1-2), CFC (3-6) |
| | Forward Lower Turret | Bombardier (1-3), CFC (4-6) |
| 12 Low | Forward Lower Turret | Bombardier (1-2), CFC (3-6) |
| | Aft Lower Turret | Bombardier (1-3), CFC (4-6) |
| 1:30 High | Forward Upper Turret | Bombardier (1-2), CFC, Right Gunner <i>(either, 3-6)</i> |
| | Aft Upper Turret | Bombardier (1-2), CFC, Right Gunner <i>(either, 3-6)</i> |
| 1:30 Level | Forward Upper Turret | Bombardier (1-2), CFC (3-6) |
| | Forward Lower Turret | Bombardier (1-3), CFC (4-6) |
| 1:30 Low | Forward Lower Turret | Bombardier (1-2), CFC, Right Gunner <i>(either, 3-6)</i> |
| | Aft Lower Turret | Bombardier (1-2), CFC, Right Gunner <i>(either, 3-6)</i> |
| 10:30 High | Forward Upper Turret | Bombardier (1-2), CFC, Left Gunner <i>(either, 3-6)</i> |
| | Aft Upper Turret | Bombardier (1-2), CFC, Left Gunner <i>(either, 3-6)</i> |
| 10:30 Level | Forward Upper Turret | Bombardier (1-2), CFC (3-6) |
| | Forward Lower Turret | Bombardier (1-3), CFC (4-6) |
| 10:30 Low | Forward Lower Turret | Bombardier (1-2), CFC, Left Gunner <i>(either, 3-6)</i> |
| | Aft Lower Turret | Bombardier (1-2), CFC, Left Gunner <i>(either, 3-6)</i> |
| 3 High | Forward and Aft Upper Turrets | CFC, Right Gunner <i>(either, no die roll necessary)</i> |
| 3 Level | Forward and Aft Upper and Lower Turrets | CFC, Right Gunner <i>(either, no die roll necessary)</i> |
| 3 Low | Forward and Aft Lower Turrets | CFC, Right Gunner <i>(either, no die roll necessary)</i> |
| 9 High | Forward and Aft Upper Turrets | CFC, Left Gunner <i>(either, no die roll necessary)</i> |
| 9 Level | Forward and Aft Upper and Lower Turrets | CFC, Left Gunner <i>(either, no die roll necessary)</i> |
| 9 Low | Forward and Aft Lower Turrets | CFC, Left Gunner <i>(either, no die roll necessary)</i> |
| 6 High | Forward and Aft Upper Turrets | CFC |
| | Tail Turret | Tail Gunner (1-4), CFC (5-6) |
| | Tail Cannon * | Tail Gunner |
| 6 Level | Aft Lower Turret | CFC |
| | Tail Turret | Tail Gunner (1-4), CFC (5-6) |
| | Tail Cannon * | Tail Gunner |
| 6 Low | Forward and Aft Lower Turrets | CFC |
| | Tail Turret | Tail Gunner (1-4), CFC (5-6) |
| | Tail Cannon * | Tail Gunner |
| VERTICAL DIVE | Forward and Aft Upper Turrets | CFC |
| VERTICAL CLIMB | Forward and Aft Lower Turrets | CFC |

* 20-mm tail cannon is only available on Missions #1-10 (see section 2.3(D))

Table 5-7 DEFENSIVE FIRE RESOLUTION**Roll 2D:**

| Dice | Result |
|--------|--|
| ≤1 | Fighter attacks normally |
| 2 | Gun(s) jam, see note (a); fighter attacks normally |
| 3 | Tail cannon (if applicable) jams, see note (a); no effect for other guns; fighter attacks normally |
| 4-9 | Fighter attacks normally |
| 10-12+ | Fighter hit – roll for damage on Table 5-8 |

Modifiers: See following page.

Table 5-7 Modifiers (cumulative):

- -3 for defensive fire against VERTICAL DIVE
- -2 for tail cannon shots (if installed; Missions #1-10 only)
- -1 for tail gun “passing shots” against a fighter attacking from the 10:30, 12, or 1:30 positions (see Section 5.3.D)
- -1 modifier when resolving defensive fire from tail guns (only) for each hit (cumulative) on Utility compartment ammunition feed trays (see Table 7-7)
- -1 for Ace fighter pilot (Table 5-5)
- -1 for defensive fire while performing “Evasive Action” (see Section 5.7)
- -1 if this is a “Night” mission
- -1 if B-29 is spotted and currently fixed by spotlight on “Night” Mission (see Table 5-14)
- +1 for Green fighter pilot (Table 5-5)
- +1 for defensive fire against **Nick** or **Irving** fighter
- +1 for defensive fire against 3 or 9 o’clock positions
- +2 for defensive fire against 6 o’clock positions
- +3 for defensive fire against VERTICAL CLIMB

Notes:

a) Regardless of modifiers in effect, guns will always jam on an unmodified roll of “2” (tail cannon on “2-3”). A functioning crewmember in the Nav/Radio section may attempt to fix a jammed *forward* turret once each turn (beginning with the *next* turn after jamming). A functioning crewmember in the Waist Compartment may attempt to fix a jammed *aft upper* turret once each turn (beginning with the *next* turn after jamming). A functioning crewmember in the Utility Compartment (unpressurized) may attempt to fix a jammed *aft lower* turret once each turn (beginning with the *next* turn after jamming). The tail gunner may attempt to fix any jammed tail gun(s) once each turn (beginning with the *next* turn after jamming). Roll 1D for the repair attempt: “1-2” = gun(s) fixed, “3-5” = gun(s) remained jammed, “6” = gun(s) broken permanently.

b) Regardless of modifiers in effect, an unmodified roll of “12” is always a hit.

Table 5-8 HIT DAMAGE AGAINST JAPANESE FIGHTER**Roll 2D:**

| Dice | Target Type | | | | | | | |
|------|-------------|-------------|-------------|--------------|-------------|--------------|---------------|---------------|
| | <i>Nick</i> | <i>Tony</i> | <i>Zeke</i> | <i>Frank</i> | <i>Tojo</i> | <i>Oscar</i> | <i>George</i> | <i>Irving</i> |
| ≤2 | FCA | FCA | FCA | FCA | FCA | FCA | FCA | FCA |
| 3 | FCA | FCA | FCA | FCA | FCA | FCA | FCA | FCA |
| 4 | FCA | FCA | FCA | FCA | FCA | FCA | FCA | FCA |
| 5 | FCA | FCA | FCA | FCA | FCA | FCA | FCA | FCA |
| 6 | FCA | FCA | FCA | FCA | FCA | FCA | FCA | FCA |
| 7 | FCA | FCA | Destroyed | FCA | FCA | Destroyed | FCA | FCA |
| 8 | FCA | FCA | FCA | FCA | Destroyed | Destroyed | Destroyed | Destroyed |
| 9 | Destroyed | Destroyed | Destroyed | Destroyed | FCA | FCA | FCA | FCA |
| 10 | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed |
| 11 | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed |
| 12+ | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed | Destroyed |

Modifiers (cumulative):

- -1 if “out of formation” or “Night” Mission
 - +1 for defensive fire against a ramming attack (note (c), Table 5-3)
 - +2 for defensive fire by tail cannon (if installed, Missions #1-10 only)
 - +1 for defensive fire by forward upper turret
- Design Note:** To discourage head-on attacks, the forward upper turret on many planes was fitted with four guns (instead of two) which could set up a deafening clatter when fired.

Explanation of Results:

- **FCA** = Fighter damaged but continues attack with a –1 modifier on Table 5-9
- **Destroyed** = Fighter removed, may not fire at B-29

Note: FCA modifier accumulate with each FCA result on one fighter (e.g., if a single fighter receives 2 “FCA” results, there is a –2 modifier on Table 5-9). Four FCA results on one fighter means the fighter destroyed.

Table 5-9 JAPANESE OFFENSIVE FIRE

Roll 2D:

| Attack Position | Dice / Result |
|-------------------------------|--------------------------------------|
| 12 High, Level, Low | "<2-8" = No hits, "9-12+" = B-29 hit |
| 1:30 / 10:30 High, Level, Low | "<2-8" = No hits, "9-12+" = B-29 hit |
| 3 / 9 High, Level, Low | "<2-7" = No hits, "8-12+" = B-29 hit |
| 6 High, Level, Low | "<2-6" = No hits, "7-12+" = B-29 hit |
| VERTICAL DIVE | "<2-8" = No hits, "9-12+" = B-29 hit |
| VERTICAL CLIMB | "<2-6" = No hits, "7-12+" = B-29 hit |

Modifiers (cumulative):

- -1 for *each* FCA result inflicted on the attacking fighter on Table 5-8
- -1 for Green fighter pilot (Table 5-5)
- -1 if B-29 is performing "Evasive Action" (see Section 5.7)
- -1 if attacking fighter is a **Tojo**
- -1 if this is a "Night" mission (**exception:** no modifier if B-29 is currently fixed by spotlight, see Table 5-14)
- +1 for Ace fighter pilot (Table 5-5)
- +1 if B-29 has *two or more* engines out (see Section 7.2)

Note: Regardless of modifiers in effect, an unmodified roll of "12" is always a hit.

Table 5-10 SHELL HITS BY AREA OF ATTACK

Roll 2D:

| Dice | Number of Shell Hits | | | | |
|------|----------------------|-------|---|---------------|----------------|
| | 12 / 1:30 / 10:30 | 3 / 9 | 6 | Vertical Dive | Vertical Climb |
| 2 | 3 | 4 | 6 | 3 | 4 |
| 3 | 2 | 3 | 5 | 2 | 4 |
| 4 | 2 | 3 | 6 | 3 | 4 |
| 5 | 2 | 3 | 3 | 1 | 2 |
| 6 | 1 | 3 | 2 | 1 | 2 |
| 7 | 2 | 1 | 2 | 1 | 1 |
| 8 | 1 | 2 | 2 | 1 | 2 |
| 9 | 2 | 4 | 3 | 1 | 2 |
| 10 | 2 | 3 | 6 | 3 | 5 |
| 11 | 2 | 3 | 5 | 2 | 4 |
| 12 | 4 | 5 | 7 | 4 | 5 |

Notes: a) if attacking fighter is a **George**, multiply the number of shell hits by 1½ (rounding down)

b) If attacking fighter is an **Oscar**, multiply the number of shell hits by ½ (rounding up)



B-29 Superfortress taking off from Saipan, Dec 1944.

Table 5-11 SHELL HITS BY AREA OF ATTACK
Roll 2D:

| ATTACK FROM 12 / 1:30 / 10:30 | | | | | |
|-------------------------------|-----------------------------|-------|-------------------------|------|-----------------------------|
| High | | Level | | Low | |
| Dice | Area Hit | Dice | Area Hit | Dice | Area Hit |
| 2 | Tail | 2 | Superficial Damage (g) | 2 | Tail |
| 3 | Superficial Damage (g) | 3 | Superficial Damage (g) | 3 | Walking Hits – See Note (d) |
| 4 | Superficial Damage (g) | 4 | Wing – See Note (a) | 4 | Superficial Damage (g) |
| 5 | Fwd Bomb Bay | 5 | Fwd Bomb Bay | 5 | Fwd Bomb Bay |
| 6 | Nav/Radio | 6 | Nav/Radio | 6 | Nav/Radio |
| 7 | Nose | 7 | Nose | 7 | Nose |
| 8 | Wing – See Note (a) | 8 | Wing – See Note (a) | 8 | Wing – See Note (a) |
| 9 | Bomb Bay – See Note (b) | 9 | Wing – See Note (a) | 9 | Bomb Bay – See Note (b) |
| 10 | Waist | 10 | Superficial Damage (g) | 10 | Waist |
| 11 | Utility | 11 | Bomb Bay – See Note (b) | 11 | Utility |
| 12 | Walking Hits – See Note (d) | 12 | Waist | 12 | Bomb Bay – See Note (b) |

| ATTACK FROM 3 / 9 | | | | | |
|-------------------|-----------------------------|-------|-----------------------------|------|-----------------------------|
| High | | Level | | Low | |
| Dice | Area Hit | Dice | Area Hit | Dice | Area Hit |
| 2 | Walking Hits – See Note (d) | 2 | Wing – Attacking Side | 2 | Tail |
| 3 | Nose | 3 | Fwd Bomb Bay | 3 | Walking Hits – See Note (e) |
| 4 | Nav/Radio | 4 | Nose | 4 | Superficial Damage (g) |
| 5 | Superficial Damage (g) | 5 | Nav/Radio | 5 | See Note (c) |
| 6 | Fwd Bomb Bay | 6 | Superficial Damage (g) | 6 | Fwd Bomb Bay |
| 7 | Wing – See Note (a) | 7 | Wing – Attacking Side | 7 | Wing – Attacking Side |
| 8 | Aft Bomb Bay | 8 | Waist | 8 | Aft Bomb Bay |
| 9 | Waist | 9 | Utility | 9 | Waist |
| 10 | Utility | 10 | Tail | 10 | Utility |
| 11 | Tail | 11 | Aft Bomb Bay | 11 | Walking Hits – See Note (d) |
| 12 | Walking Hits – See Note (e) | 12 | Walking Hits – See Note (f) | 12 | Bomb Bay – See Note (b) |

| ATTACK FROM 6 | | | | | |
|---------------|-----------------------------|-------|------------------------|------|-----------------------------|
| High | | Level | | Low | |
| Dice | Area Hit | Dice | Area Hit | Dice | Area Hit |
| 2 | Superficial Damage (g) | 2 | Wing – See Note (a) | 2 | Superficial Damage (g) |
| 3 | Nav/Radio | 3 | Superficial Damage (g) | 3 | Nav/Radio |
| 4 | Bomb Bay – See Note (b) | 4 | Tail | 4 | Superficial Damage (g) |
| 5 | Waist | 5 | Wing – See Note (a) | 5 | Waist |
| 6 | Wing – See Note (a) | 6 | Superficial Damage (g) | 6 | Tail |
| 7 | Tail | 7 | Tail | 7 | Wing – See Note (a) |
| 8 | Wing – See Note (a) | 8 | Superficial Damage (g) | 8 | Bomb Bay – See Note (b) |
| 9 | Utility | 9 | Wing – See Note (a) | 9 | Utility |
| 10 | Aft Bomb Bay | 10 | Utility | 10 | Walking Hits – See Note (d) |
| 11 | Walking Hits – See Note (d) | 11 | Waist | 11 | Aft Bomb Bay |
| 12 | Nose | 12 | Wing – See Note (a) | 12 | Nose |

| VERTICAL DIVE | | VERTICAL CLIMB | |
|---------------|-----------------------------|----------------|-----------------------------|
| Dice | Area Hit | Dice | Area Hit |
| 2 | Nose | 2 | Bomb Bay – See Note (b) |
| 3 | Nav/Radio | 3 | Nose |
| 4 | Superficial Damage (g) | 4 | Nav/Radio |
| 5 | Walking Hits – See Note (d) | 5 | Superficial Damage (g) |
| 6 | Superficial Damage (g) | 6 | Wing – See Note (a) |
| 7 | Wing – See Note (a) | 7 | Bomb Bay – See Note (b) |
| 8 | Walking Hits – See Note (e) | 8 | Walking Hits – See Note (d) |
| 9 | Bomb Bay – See Note (b) | 9 | Walking Hits – See Note (e) |
| 10 | Waist | 10 | Waist |
| 11 | Utility | 11 | Utility |
| 12 | Tail | 12 | Tail |

Notes to Table 5-11, as applicable:

- a) Roll 1D (add one if attack is from 1:30 or 3, subtract one if attack is from 9 or 10:30): “1-3” = Port Wing, “4-6” = Starboard Wing
- b) Roll 1D: “1-3” = Fwd Bomb Bay, “4-6” = Aft Bomb Bay
- c) Roll 1D: “1-3” = Nose, “4-6” = Nav/Radio
- d) One shell hit on each of the following sections: Nose, Nav/Radio, Fwd Bomb Bay, Aft Bomb Bay, Waist, Utility, Tail
- e) Two shell hits on each Wing
- f) One shell hit in each of the following sections: Nose, Nav/Radio, Wing (attacking side), Waist, Utility, Tail
- g) “Superficial Damage” equates to *no effect*; no further damage resolution is required

Table 5-12 HIT EFFECT MULTIPLIER**Roll 1D:**

| Attacking Fighter Inflicting Hit | | | | | | | | |
|----------------------------------|------|------|--------------|-------|------|-------|---------|--------|
| Die | Nick | Tony | Zeke | Frank | Tojo | Oscar | George | Irving |
| 1 | x 2 | x 2 | x 0 (a) | x 1 | x 1 | x 1 | x 0 (a) | x 2 |
| 2 | x 2 | x 2 | See Note (b) | x 1 | x 1 | x 1 | x 1 | x 2 |
| 3 | x 2 | x 2 | x 1 | x 1 | x 1 | x 1 | x 2 | x 2 |
| 4 | x 2 | x 2 | x 2 | x 2 | x 1 | x 1 | x 2 | x 2 |
| 5 | x 3 | x 2 | x 2 | x 2 | x 1 | x 1 | x 2 | x 2 |
| 6 | x 3 | x 2 | x 2 | x 2 | x 1 | x 1 | x 2 | x 2 |

Notes: a) Any “x 0” result is automatic “Superficial damage” for that hit (no effect)

b) As required, roll 1D: “1-3” = x 0 (“Superficial Damage”), “4-6” = x 1

Table 5-13 SUCCESSIVE ATTACKS**Roll 2D for each eligible fighter:**

| Successive Attack Area | | |
|------------------------|----------------------------|------------------------------|
| Dice | All B-29 Engines Operating | One or More B-29 Engines Out |
| 2 | VERTICAL CLIMB | VERTICAL CLIMB |
| 3 | VERTICAL CLIMB | 6 * |
| 4 | 6 Low | 9 * |
| 5 | 10:30 Low | 12 * |
| 6 | 9 Low | 1:30 * |
| 7 | 6 Low | 12 * |
| 8 | 3 Low | 10:30 * |
| 9 | 1:30 Low | 12 * |
| 10 | 6 Low | 3 * |
| 11 | 9 Low | 9 * |
| 12 | 3 Low | 3 * |

* **Note:** **Frank** and **Tojo** fighters always attack from “High” angle of attack on second column; **Nick**, **Tony**, **Zeke**, **Oscar**, and **George** fighters always attack from “Low” angle of attack on second column.

Ω Table 5-14 JAPANESE SEARCHLIGHTS**Roll 2D:**

| Dice | Result |
|---------|--|
| ≤2 - 10 | No Effect |
| 11-12+ | Searchlight has spotted and is fixed on B-29 (a) (b) (c) |

Modifiers (cumulative):

- -1 if “Weather in Zone” (see Table 4-2) is “POOR”
- -2 if “Weather in Zone” (see Table 4-2) is “BAD”
- -1 if B-29 is performing “Evasive Action” (see Section 5.7)
- -1 if the target city is asterisked on Table 2-9
- +1 if target is Tokyo, Nagoya, or Shimonoseki

Notes: a) If a searchlight fixes on the B-29, place a “Searchlight” marker on the B-29 counter on the Strategic Movement Track. The marker is removed at the end of the current turn.

b) If the B-29 is successfully spotted and fixed by Japanese searchlight *and* the bomber's squadron position is "Low" (Table 2-5) *and* the two lower turrets (forward and aft) are armed (Table 2-7) and functional, one attempt may be made to shoot out the offending light(s). The CFC, Left Gunner, or Right Gunner may attempt the shot. Mark off one burst (box) of ammunition for both lower turrets and roll 2D: "2" (unmodified) = no effect and gun(s) jam, roll 1D: "1=3" = lower forward turret jams, "4=6" lower aft turret jams, see note (a) of Table 5-7; "3-11" = no effect, searchlight remains fixed; "12" = Searchlight suppressed, remove Searchlight marker from B-29. Note that only one dice roll is made even though *both* turrets are firing. If only one of the lower turrets is armed and functional, the shot may not be attempted.

c) A Searchlight marker on the B-29 counter causes a -1 modifier when rolling for defensive fire on Table 5-7, a +1 modifier when rolling for Japanese night fighters on Table 5-15, a +1 modifier when rolling for Japanese Flak on Table 6-2, and a -1 modifier when rolling for the bomb run on Table 6-6.

Ω Table 5-15 JAPANESE NIGHT FIGHTER APPEARANCE

Roll 2D:

| Dice | Result |
|--------|--|
| ≤2 - 8 | No Fighter Combat This Turn |
| 9 | See Note (a) |
| 10 | Kawasaki Ki-45 Toryu ("Dragon Slayer") NICK |
| 11 | Nakajima J1N Gekko ("Moonlight") IRVING |
| 12 | Kawasaki Ki-45 Toryu ("Dragon Slayer") NICK |
| 13+ | See Note (b) |

Modifiers (cumulative):

- +1 if Japanese Fighter Resistance level in Zone is "Heavy" (see Table 5-1)
- - 1 if Japanese Fighter Resistance level in Zone is "Light" (see Table 5-1)
- +1 if B-29 is spotted and fixed by Japanese searchlight (Designated Target Zone only, see Table 5-14 and Section 6.0)

Notes:

a) No fighter attack this turn but possible hits on your B-29 by other bombers (disregard if an "*all turrets/guns unarmed*" result was rolled for this mission on Table 2-7). Roll 1D (add one if an "*All gunners and all turrets/guns armed*" result was rolled for this mission on Table 2-7): "1-5" = no hits, "6" = hit. If hit, roll 1D for number of shell hits, then roll 2D for location of each: "2" = nose, "3" = Nav/Radio, "4" = Waist, "5" = fwd bomb bay, "6" = starboard wing, "7" = superficial damage, "8" = port wing, "9" = aft bomb bay, "10" = tail, "11" = utility, "12" = nose. Resolve hit effect(s) normally on the applicable Damage Tables (see Section 7.1)

Design Note: Even though B-29s did not fly in formation at night, it was not unusual for planes to pass close to each other and for nervous gunners to "shoot first, ask questions later." Concern over friendly fire was one of the reasons LeMay ordered the planes unarmed for the first low level night mission to Tokyo.

b) On Missions #1-14, a result of "13+" on Table 5-15 is "no fighter combat this turn." Otherwise (i.e., Missions #15-35), roll 1D: "1-3" = B-29 is attacked by **Baka** suicide rocket, see note (c) below; "4-6" = coordinated (multi-plane) attack, see note (d) below.

c) As applicable from note (b), *Bakas* always attack from the 6 o'clock LEVEL position. Do not roll on Table 5-5 for "Fighter Pilot Status". *Bakas* can be fired at normally (they are automatically spotted and do not fire back) and are hit on a roll of "11-12" (no modifiers allowed *except* for "Evasive Action", see Section 5.7) and destroyed on a roll of "7-12." *Bakas* cannot be damaged (not in game terms). If destroyed, the explosion may still cause damage to the B-29, roll 1D: "1-4" = roll 2x on Table 7-5 for both wings, and 3x on Table 7-8 (Tail), "5-6" = superficial damage. If *Baka* is not hit and destroyed, roll 2D for collision (subtract one from the roll if the B-29 took "Evasive Action" during combat—also allowed if no guns are available to fire—see Section 5.7): "≤2-10" = *Baka* misses or falls short, "11-12" = *Baka* hits B-29 and explodes, entire crew KIA.

Note: See the Design Note to note (b) of Table 5-3 for more information on the *Baka*.

d) As applicable from note (b), Roll 1D, halve (round up) the result = total number of attacking Nakajima J1N Gekko ("Moonlight") **IRVING** fighters.

6.0. OVER THE TARGET TABLES

Table 6-1 TARGET VISIBILITY

Roll 1D:

| Die | Result |
|-----|--|
| ≤1 | Target <i>completely</i> obscured; apply a “-2” modifier on Table 6-2 and a “-1” modifier on Table 6-6 (both cumulative with any other modifiers). |
| 2-3 | Target <i>mostly</i> obscured; apply a “-1” die roll modifier on Table 6-2 (cumulative with any other modifier). |
| 4-5 | Target <i>slightly</i> obscured; no special modifiers apply |
| 6+ | Clear conditions apply. Apply a “+1” modifier on Tables 6-2 and 6-6 (cumulative with any other modifiers). |

Modifiers (cumulative):

- +1 if “Weather in Zone” (see Table 4-2) is “GOOD”
- +1 if at “LO” altitude
- +1 if this a U/A mission (see Table 2-2C or Table 2-3) *and* B-29 formation position (see Table 2-4) is “Lead” (“Night” missions included)
- -1 if “Weather in Zone” (see Table 4-2) is “BAD”
- -1 if at “HI” altitude
- -1 if this a U/A mission (see Table 2-2C or Table 2-3) *and* B-29 formation position (see Table 2-4) is “Tail” (“Night” missions included)

Table 6-2 FLAK OVER TARGET

Roll 1D:

| Die | Result |
|-----|-------------|
| ≤1 | No Flak |
| 2-4 | Light Flak |
| 5-6 | Medium Flak |
| 7+ | Heavy Flak |

Modifiers (cumulative):

- -2 if “Target Visibility” (see Table 6-1) is “Target *completely* obscured”
- -1 if “Target Visibility” (see Table 6-1) is “Target *mostly* obscured”
- -1 if this is a “Night” mission
- -1 if at “HI” altitude
- -1 if the target city is asterisked on Table 2-9
- -1 if B-29 is performing “Evasive Action” (see Section 5.7)
- -1 for “Additional Flak” (see Section 6.4)
- +1 if target is Tokyo, Nagoya, or Yokohama
- +1 if at “LO” altitude *and* one or more B-29 engines are *out* (otherwise, no modifier)
- +1 if “Target Visibility” (see Table 6-1) is “Clear conditions apply”
- +1 if B-29 is spotted and fixed by Japanese searchlight (see Table 5-14)

Table 6-3 FLAK TO HIT B-29

Roll 2D (x 3 times):

| Dice | Result | | |
|------|-------------------|--------------------|-------------------|
| | <i>Light Flak</i> | <i>Medium Flak</i> | <i>Heavy Flak</i> |
| 2 | Hit | Hit | Hit |
| 3 | Miss | Hit | Hit |
| 4 | Miss | Miss | Miss |
| 5 | Miss | Miss | Hit |
| 6 | Miss | Miss | Miss |
| 7 | Miss | Hit | Hit |
| 8 | Miss | Miss | Miss |
| 9 | Miss | Miss | Hit |
| 10 | Miss | Miss | Miss |
| 11 | Miss | Hit | Hit |
| 12 | Hit | Hit | Hit |

Table 6-4 B-29 FLAK HITS**Roll 2D:**

| Dice | Result |
|--|-----------------------------|
| 2 | <i>Burst Inside Plane *</i> |
| 3 | 1 |
| 4 | 4 |
| 5 | 3 |
| 6 | 2 |
| 7 | 1 |
| 8 | 2 |
| 9 | 3 |
| 10 | 4 |
| 11 | 5 |
| 12 | 4 |
| * Roll once on Table 6-5 to determine section of plane affected by burst | |

Table 6-5 AREA AFFECTED BY FLAK HITS**Roll 2D (per shell hit from Table 6-4):**

| Dice | Area Affected |
|---|---|
| 2 | Nose |
| 3 | Nav/Radio |
| 4 | Waist |
| 5 | Fwd Bomb Bay |
| 6 | Starboard Wing |
| 7 | Superficial Damage (<i>roll again for "Burst Inside Plane"</i>) |
| 8 | Port Wing |
| 9 | Aft Bomb Bay |
| 10 | Tail |
| 11 | Utility |
| 12 | Nose |
| The parenthetical on die roll #7 means that if you are rolling on Table 6-5 as a <i>direct</i> result of a "Burst Inside Plane" result on Table 6-4, then you must ignore the "Superficial Damage" notation on 6-5—roll again to get a different result. <u>No</u> additional roll is required if a "Burst Inside Plane" result did <i>not</i> occur. | |

Table 6-6 BOMB RUN**Roll 1D:**

| Die | Effect |
|------|------------|
| ≤1-2 | Off Target |
| 3-6+ | On Target |

Modifiers (cumulative):

- -2 if at "HI" altitude (-3 if one or more "Off Course" results were rolled on Table 4-8 in the Designated Target Zone)
- -2 if "Bomb Release Mechanism Failure" has been rolled for on Table 4-9 and this is a U/A mission (see Table 2-2C or Table 2-3)
- -2 if automatic pilot has been damaged (see Table 7-9) (**exception:** do not apply this modifier if this is a U/A mission)
- -1 if "Formation Disrupted" result is received on Table 4-3 from "Bad" weather while in formation anytime during this mission (do not apply this modifier if "Out of Formation" or if this is a "Night" Mission)
- -1 if this is a "Night" Mission
- -1 if B-29 is spotted and fixed by Japanese searchlight (see Table 5-14)
- -1 if Radar is out or Intercom is out or radar operator is KIA or SW (no additional modifier if more than one condition applies)
- -1 if "Target Visibility" (see Table 6-1) is "Target completely obscured" (**exception:** do not apply this modifier if this is a U/A mission and both Radar and Intercom are operational and radar operator is in position and not KIA or SW)
- -1 if Norden bombsight is damaged (see Table 7-1) (**exception:** do not apply this modifier if this is a U/A mission and both Radar and Intercom are operational and radar operator is in position and not KIA or SW); see Note below
- -1 if the bombardier is KIA or SW (**exception:** if bombardier's wound or death occurs from flak on the bomb run, then bombs are automatically "Off Target")
- -1 if the navigator is KIA or SW and this is a "Night" mission or B-29 is "Out of Formation" (**exception:** do not apply this modifier if navigator was KIA or SW in the Designated Target Zone)
- -1 if the B-29 performed "Evasive Action" (see Section 5.7) to avoid searchlights or flak
- +1 if at "LO" altitude
- +1 if "Target Visibility" (see Table 6-1) is "Clear conditions apply"
- +1 if this a U/A mission (see Table 2-2C or Table 2-3)

Note: If the Norden bombsight is damaged and the B-29 is "out of formation" ("Day" missions only) or "Lead" bomber with bombsight damage resulting from flak during the bomb run, then the "bomb run" is automatically "Off Target."

Table 6-7 BOMBING ACCURACY**Roll 2D:**

| ON TARGET | | OFF TARGET | |
|-----------|------------------|------------|--------------|
| Dice | Percentage | Dice | Percentage |
| 2 | See Note (a) | 2 | See Note (c) |
| 3 | 60 | 3 | 5 |
| 4 | 50 | 4 | 0 |
| 5 | 40 | 5 | 0 |
| 6 | 30 | 6 | 0 |
| 7 | 20 (b) | 7 | 0 |
| 8 | 30 (b) | 8 | 0 |
| 9 | 40 (b) | 9 | 0 |
| 10 | 50 (b) | 10 | 0 |
| 11 | See Note (a) (b) | 11 | Roll 1D |
| 12 | 88 + 2D | 12 | Roll 2D |

Notes: a) As applicable, roll 1D three times and multiply the sum by the roll of one die.

b) As applicable, double percentage for “On Target” bombs on U/A mission (only) (up to 100% maximum)

c) As applicable, roll 2D, subtract 6 from the dice roll (to a minimum of zero), and multiply the result by 3.

d) For all rolls, on both “On Target” and “Off Target” results, halve the percentage (round up) if either forward or aft bomb bay doors did not function (either as a result of “Bomb Bay Door Malfunction” result on Table 4-9 or battle damage from Tables 7-3 or 7-4) or Bomb Release Mechanism was damaged (Tables 7-3 or 7-4). The result is automatically “Off Target” and “0%” if doors or release mechanism in *both* bomb bays inoperable.**Ω Table 6-8 THERMAL TURBULENCE****Roll 1D:**

| Die | Result |
|------|---|
| <1-2 | Severe turbulence encountered. Go to Table 6-9. |
| 3-6+ | Moderate or negligible turbulence, no further die rolls required. |

Modifiers (cumulative):

- +1 if B-29 formation position (see Table 2-4) is “Lead”
- +1 if B-29 squadron position (see Table 2-5) is “High”
- +1 if “Off Target” result obtained on Table 6-6
- -1 if B-29 formation position (see Table 2-4) is “Tail”
- -1 if B-29 squadron position (see Table 2-5) is “Low”

Ω Table 6-9 IMPACT OF THERMAL TURBULENCE**Roll 2D:**

| Dice | Result |
|------|--|
| 2-6 | Safe passage; continue mission with no impact |
| 7 | Roll once on Table 7-5 “Wings” (once each for both the port and starboard wings) |
| 8 | One wing root hit is inflicted on each wing |
| 9 | One wing root hit is inflicted on each wing. Also, roll 1D for <u>each</u> crewmember: “1-5” = no effect, safe passage, continue mission with no impact; “6” = roll for wound on Table 7-13 with a -1 modifier |
| 10 | Up- or downdraft causes possible collision with another B-29. Roll 2D (add one [+1] to the dice roll if B-29 squadron position [see Table 2-5] is “Low”, subtract one [-1] if B-29 squadron position [see Table 2-5] is “High”): “2-10” = no collision, safe passage, continue mission, “11-12” = Mid-air collision, B-29 destroyed and crew must bail out on Table 8-5. |
| 11 | One or more bombs hung up in (or tossed up against) bomb bay by updraft, roll 1D: “1-5” = no effect, bomb(s) fall harmlessly, “6” = bomb(s) explodes, B-29 destroyed, entire crew KIA |
| 12 | B-29 flipped over! Roll 1D: “1-4” = plane falls violently out of control, crashes, entire crew KIA; “5-6” = control regained, plane righted, two wing root hits are inflicted on each wing, roll 1D for <u>each</u> crewmember: “1-5” = no effect, “6” = roll for wound on Table 7-13 with a -1 modifier (exception: if electrical system is out, see Table 7-10, control is <u>not</u> regained, plane crashes) |

7.0. BOMBER DAMAGE TABLES

Table 7-1 NOSE Roll 2D:

| Dice | Area Hit | Effect |
|------|---------------------|--|
| 2 | Oxygen Supply | Roll 1D: “1” = Pilot and Copilot, “2” = Pilot, “3” = Copilot, “4-5” = Bombardier, “6” = Fire, roll to extinguish (see Section 7.5) on Table 7-12, and all Nose section oxygen out. See Section 7.4. Also, see Note (b) . |
| 3 | Bombardier Gunsight | Bombardier may not fire guns (see Table 5-6) See Note (b) . |
| 4 | Nose Landing Gear | (a) Nose gear will not extend (-3 to landing, but not cumulative with the -3 for either wing landing gear not extending) -- (If the player receives another hit to the nose gear, gear considered destroyed.) (b) Nose gear will extend but not hold (-4 to landing) (Player can raise it manually but modifier still applies on landing. If the player receives another hit to the nose gear, gear considered destroyed and cannot be brought up manually (if extended) (-4) on landing. Plane drops out of formation and must spend two turns in each zone due to increased drag if nose gear extended.) (c) Nose gear damaged (-1 to landing). (If the player receives another hit to the nose gear, gear considered destroyed.) (d) Nose gear drops down prematurely (2 turns per zone until raised manually, but no effect on landing) (If the player receives another hit to the nose gear, gear considered destroyed and cannot be brought up manually (-4) on landing. Plane drops out of formation and must spend two turns in each zone due to increased drag.) |
| 5 | Hydraulic Reservoir | Brake reliability on landing is reduced. Apply a -2 landing roll modifier on Table 8-1. See Notes (a) & (b) . Also, roll 1D: “1-3” = hydraulic fluid catches fire, roll to extinguish (see Section 7.5) on Table 7-12, “4-6” = no fire. |
| 6 | Crewmember | Roll 1D: “1” = Pilot and Copilot, “2” = Pilot, “3” = Copilot, “4” = Bombardier, “5” = Pilot, Copilot, and Bombardier, “6” = Bombardier and roll 1D again: “1-3” = Pilot, “4-6” = Copilot Roll for wound on affected crewmember(s) on Table 7-13. See Notes (b) & (e) . |
| 7 | Superficial Damage | No Effect. |
| 8 | Windshield | 1 st windshield hit = No Effect; 2 nd windshield hit = apply a -1 landing roll modifier on Tables 8-1 and 8-3. Also, pressurization capability is “compromised,” neither Nose or Nav/Radio sections may be pressurized (see Sections 4.2, 7.2, 7.3). If currently pressurized, roll for Explosive Decompression on Table 7-11 (result applies to both Nose and Nav/Radio sections). Additional hits treat as dice roll #6. |
| 9 | Cockpit Instruments | Roll for damage on Table 7-9. Also, see Note (b) . |
| 10 | Norden Bombsight | If B-29 is “out of formation” (“Day” missions only) or “Lead” bomber with bombsight damage resulting from flak during the bomb run, then the “bomb run” is automatically “Off Target.” Otherwise, apply a -1 modifier on Table 6-6 (Exception: do <u>not</u> apply this modifier if this is a U/A mission <u>and</u> both Radar and Intercom are operational <u>and</u> radar operator is in position and not KIA or SW). See Notes (a) & (b) . |
| 11 | Superficial Damage | No Effect. |
| 12 | Radio Compass | Radio compass no longer usable, see Table 4-7. Also, see Note (b) . |

Notes to Table 7-1, as applicable:

a) If in the Designated Target Zone, roll 1D: “1-4” = No additional effect, “5-6” = roll for bombardier wound on Table 7-13. See Note (e).

b) Roll 1D: “1-5” = no additional effect, “6” = Pressurization capability “compromised,” neither Nose or Nav/Radio sections may be pressurized (see Sections 4.2, 7.2, 7.3), roll 1D again if currently pressurized: “1-5” = no additional effect, “6” = roll for Explosive Decompression on Table 7-11 (result applies to both Nose and Nav/Radio sections)

c) Emergency extension of the nose gear may be attempted *twice* prior to landing, roll 1D for each attempt: “1-2” = nose gear successfully extended, “3-6” = nose gear remains stuck. If second attempt to extend nose gear fails, apply a -3 modifier on the landing roll on Table 8-1. The nose gear modifier is not cumulative with the main landing gear (Table 7-5) modifier (i.e., the maximum modifier even if both nose and main gear is not lowered is -3).

d) Manual operation of the nose gear may be attempted once per Zone entered: roll 1D: “1-2” = nose gear is successfully raised (see **Note (c)** to extend gear for landing), “3-6” = nose gear remains inoperable. As long as the gear is inoperable, speed is reduced due to drag—the aircraft must spend 2 turns per Zone, beginning immediately, with fuel box(es) crossed off normally per *turn*.

e) Apply a -1 modifier to Table 6-6 if the bombardier is KIA or SW (**exception:** if bombardier’s wound or death occurs from flak on the bomb run, then bombs are automatically “Off Target”)

Note: When a compartment is hit and crew casualties must be rolled for – any wounded crewman that has been moved into the affected compartment must also roll for wounds

Table 7-2 NAV / RADIO**Roll 2D:**

| Dice | Area Hit | Effect |
|------|-----------------------|---|
| 2 | Oxygen Supply | Roll 1D: “1” = Flight Engineer, “2” = Navigator, “3” = Radio Operator, “4” = Fire, roll to extinguish (see Section 7.5) on Table 7-12, and all Nose and Nav/Radio section oxygen out, “5-6” = roll 1D again: “1-2” = Flight Engineer, “3-4” = Navigator, “5-6” = Radio Operator. See Section 7.4. Also, see Note . |
| 3 | Hydraulic Reservoir | No Effect unless “Hydraulic Reservoir” in Nose section has also been hit. In that case, brake capability is lost, apply a –6 landing roll modifier on Table 8-1. See Note . Also, roll 1D: “1-3” = hydraulic fluid catches fire, roll to extinguish (see Section 7.5) on Table 7-12, “4-6” = no fire. |
| 4 | Engineer Instruments | Roll for damage on Table 7-10. Also, see Note . |
| 5 | Radio Out | No Mayday possible. If forced to land in water (Table 8-3) or bail out over water (Tables 8-4 or 8-5), roll modifier on Table 8-6 is –2. |
| 6 | Crewmember | Roll 1D: “1-2” = Flight Engineer, “3-4” = Navigator, “5-6” = Radio Operator. Roll for wound on affected crewmember(s) on Table 7-13. See Note . |
| 7 | Superficial Damage | No Effect. |
| 8 | Armament | Roll 1D: “1-3” = Forward Upper Turret inoperable (guns many not fire), “4-6” = Forward Lower Turret inoperable (guns may not fire) |
| 9 | Intercom | Apply a +2 modifier when rolling for crewmembers going on oxygen for depressurization (see Section 4.2) and a –1 modifier on Table 6-6. A die roll is normally required on Table 5-6 for defensive fire allocation. Mission may be aborted (see Section 4.7). Also, see Note . |
| 10 | Navigator’s Equipment | Roll 1D: “1-3” = Navigator tools, see Tables 4-5 and 4-6, “4-6” = LORAN set inoperable, see Table 4-7. Also, see Note . |
| 11 | Superficial Damage | No Effect. |
| 12 | Fire Extinguisher | Nav/Radio fire extinguisher destroyed and unusable, remove marker from Crew Placement Sheet. Also, see Note . |

Note: When indicated, roll 1D: “1-5” = no additional effect, “6” = Pressurization capability “compromised,” neither Nose or Nav/Radio sections may be pressurized (see Sections 4.2, 7.2, 7.3), roll 1D again if currently pressurized: “1-5” = no additional effect, “6” = roll for Explosive Decompression on Table 7-11 (result applies to Nose and Nav/Radio sections)

Table 7-3 FORWARD BOMB BAY**Roll 2D:**

| Dice | Area Hit | Effect |
|------|---------------------------|--|
| 2 | Compressed Air Duct | 1 st hit = No Effect, 2 nd hit (anywhere in B-29 except Utility compartment) = Roll 1D: “1-4” = No Effect, “5-6” = Pressurization capability lost <i>throughout</i> B-29 (see Sections 4.2, 7.2, 7.3). |
| 3 | Center Wing Fuel Tanks | Roll 1D: “1” = Fire, see Note (a) , “2-3” = Leakage, see Note (b) , “4-6” = Self-seal, No Effect. |
| 4 | Rubber Life Raft | If plane lands in water, then the +1 modifier for “successful ditching” on Table 8-6 may be applied to no more than 6 (player’s choice) crewmen. (If rubber life rafts hit in Aft Bomb Bay as well, then the modifier may not be applied to any crewmen). |
| 5 | Bombs/Auxiliary Fuel Tank | If auxiliary fuel tank is installed (or was installed and later jettisoned) (see Section 2.3), roll 1D: “1-3” = Bombs hit (<i>No Effect</i> if already dropped), see Note (c) , “4-6” = auxiliary fuel tank hit, see Note (d) . If auxiliary fuel tank was <i>not</i> installed, then bombs hit (<i>No Effect</i> if already dropped), see Note (c) . |
| 6 | Bombs/Auxiliary Fuel Tank | See above. |
| 7 | Superficial Damage | No Effect. |
| 8 | Bomb Bay Doors | No Effect if bomb run already accomplished. Otherwise, roll 1D after rolling on Table 6-6 during the bomb run: “1-2” = Bay doors jammed shut, “3-4” = bay doors jammed open, “5-6” = superficial damage, No Effect. See Note (e) . |
| 9 | Communications Tunnel | Roll 1D: “1-5” = No Effect, “6” = Pressurization capability “compromised” in communications tunnel, crewmembers may <i>not</i> move from Nav/Radio section directly to the Waist compartment (and vice versa) without depressurization (see Section 4.2). |
| 10 | Bomb Release Mechanism | See Note (f) . |
| 11 | Superficial Damage | No Effect. |
| 12 | Radio Compass Antenna | Radio compass no longer usable, see Table 4-7. |

Notes to Table 7-3, see next page.

Notes to Table 7-3, as applicable:

a) Roll 1D: “**1-4**” = fire continues, bail out on Table 8-4; “**5-6**” = explosion—if bombs still aboard B-29 is destroyed, entire crew KIA; otherwise, bail out on Table 8-5.

b) Roll 1D and halve the result; subtract one (-1) from the halved result if both B-29 fuel pumps are operating; add one (+1) to the halved result if both B-29 fuel pumps have failed (Table 4-9) and/or are damaged (Table 7-4). The final result is the number of fuel tank boxes that must *immediately* be crossed off. If the result is modified to “0”, no boxes are crossed off (the flight engineer has succeeded in transferring fuel out of the tank such that the loss is negligible). Cross off requirements for leakage do not satisfy fuel consumption requirements (see Section 4.3). Auxiliary fuel tank boxes (see Section 2.3) may not be used to satisfy leakage cross off requirement. If the same leaking fuel tank is hit again, do not roll for damage, there is no additional effect.

c) Roll 1D: “**1-4**” = No Effect, “**5-6**” = bombs detonate, B-29 destroyed, crew KIA.

d) If applicable bomb bay auxiliary fuel tank has no fuel remaining (see Section 4.3) or has been jettisoned—No Effect. Otherwise, roll 1D: “**1-4**” = leakage, cross off one applicable bomb bay auxiliary fuel tank box per turn (beginning immediately), this cross-off requirement does not count toward required fuel consumption (see Section 4.3), “**5-6**” = fire, see **Note (a)**.

e) If bomb bay doors are jammed shut on the bomb run, halve the bombing accuracy percentage, see Table 6-7. If the bomb bay door(s) jams closed, two manual attempts to actuate the door(s) may be attempted. The first is by the pilot in the cockpit, roll 1D: “**1-2**” = door(s) successfully opened, “**3-6**” = door(s) remain jammed closed. Whether jammed open or shut the bomber must permanently leave formation (if applicable) at this point. Any second attempt to open door(s) jammed closed—or *any* attempt to *close* doors jammed *open*—requires one functioning crewmember (normally the flight engineer) spend at least one turn (beginning no earlier than the turn following the bomb run) in the bomb bay (see Section 4.2 for pressurization rules, if applicable) to attempt emergency operation of the door using a portable electric motor installed for the purpose. Roll 1D: “**1-3**” = door(s) successfully opened/closed, “**4**” = motor burns out (this may also affect emergency flap operation—see Table 7-9, “Flaps” result (note e.)), door(s) remains stuck open/closed, “**5-6**” = door(s) jammed open/closed. In either case, no further attempts are possible. If bomb bay doors fail to open—thus preventing bomb drop—fuel consumption (see Section 4.3(a)) remains **two** boxes per zone entered (note that consumption is still just *one* box marked off for turn-around turn). If bomb bay doors fail to close, speed is reduced due to drag—two turns per zone beginning immediately (i.e., three turns total in the Designated Target Zone—one for flight in, two for flight out—with one fuel box marked off for each extra turn spent in each zone). Also, there is a negative modifier for “Landing in Water” (Table 8-3).

f) Manual attempt must be made to drop/jettison bombs and/or auxiliary fuel tank (if installed, see Section 2.3). If at any time, the player decides to jettison the fuel tank (if applicable) a separate attempt is required from any bomb drop. Manual attempt is successful on a die roll of “**1-2**” but see Note (d) to Table 6-7 for effect on bomb drop. If unsuccessful in manual attempt on bomb run, plane must leave formation (if applicable) and attempt to jettison. Roll 1D: “**1-2**” = bombs successfully jettisoned, “**3-6**” attempt unsuccessful. A jettison attempt may be made once per turn. Subtract one (-1) from the roll if a crewmember is present in the bomb bay (see Section 4.2 for pressurization rules, if applicable) during the attempt (*i.e., simulating the attempt to drop bombs singly by manually tripping the release lever on each bomb shackle*). If bombs are still on-board upon reaching base, see note c. to Table 8-1, pilot must remain aboard for landing attempt (remainder of crew may bail out). If bombs are still aboard in a ditching attempt, apply a “-1” modifier to the landing roll on Table 8-3 but entire crew may bail out. (No additional effect if already rolled for.) Until all bombs are successfully jettisoned, fuel consumption (see Section 4.3(a)) remains **two** boxes per zone entered (note that consumption is still just *one* box marked off for turn-around turn).

Table 7-3 and 7-4 FORWARD and AFT BOMB BAY (clarification) Damage to the bomb release mechanism in either bomb bay [result #10, note (f)] means some or all bombs will fail to drop from the applicable bomb bay during the bomb run (if not already released). A manual attempt to drop/jettison bombs may not be made prior to the bomb run unless the aircraft aborts for another reason or there is a requirement to jettison bombs in order to stay in formation (e.g., one or more engines are out).

Table 7-4 AFT BOMB BAY**Roll 2D:**

| Dice | Area Hit | Effect |
|------|------------------------------|--|
| 2 | Compressed Air Duct | 1 st hit = No Effect, 2 nd hit (anywhere in B-29 except Utility compartment) = Roll 1D: “1-4” = No Effect, “5-6” = Pressurization capability lost <i>throughout</i> B-29 (see Sections 4.2, 7.2, 7.3) |
| 3 | Center Wing Fuel Tanks | Roll 1D: “1” = Fire, see Note (a) , “2-3” = Leakage, see Note (b) , “4-6” = Self-seal, No Effect. |
| 4 | Rubber Life Raft | If plane lands in water, then the +1 modifier for “successful ditching” on Table 8-6 may be applied to no more than 6 (player’s choice) crewmen. (If rubber life rafts hit in Forward Bomb Bay as well, then the modifier may not be applied to any crewmen). |
| 5 | Bombs or Auxiliary Fuel Tank | If auxiliary fuel tank is installed (or was installed and later jettisoned) (see Section 2.3), roll 1D: “1-3” = Bombs hit (No Effect if already dropped), see Note (c) , “4-6” = auxiliary fuel tank hit, see Note (d) . If auxiliary fuel tank was <i>not</i> installed, then bombs hit (No Effect if already dropped), see Note (c) . |
| 6 | Bombs or Auxiliary Fuel Tank | See above. |
| 7 | Superficial Damage | No Effect. |
| 8 | Bomb Bay Doors | No Effect if bomb run already accomplished. Otherwise, roll 1D after rolling on Table 6-6 during the bomb run: “1-2” = Bay doors jammed shut, “3-4” = bay doors jammed open, “5-6” = superficial damage, No Effect. See Note (e) |
| 9 | Communications Tunnel | Roll 1D: “1-5” = No Effect, “6” = Pressurization capability “compromised” in communications tunnel, crewmembers may <i>not</i> move from Nav/Radio section directly to the Waist compartment (and vice versa) without depressurization (see Section 4.2) |
| 10 | Bomb Release Mechanism | See Note (f) |
| 11 | Superficial Damage | No Effect. |
| 12 | Fuel Transfer Pump | See Note (g) . |

Notes to Table 7-4, as applicable:**a) through f)** see notes to Tables 7-3.

g) 1st hit = When attempting to cross off an auxiliary fuel box per 4.3(b), roll 1D first: “1-4” = auxiliary fuel tank box may be crossed off normally, “5-6” = no auxiliary fuel tank box may be checked off this turn. 2nd hit = no auxiliary fuel tank boxes may be checked off (the tanks may be jettisoned). Also (in either case), see the “Fuel Tank Leakage” damage result (Table 7-5). Note that if one fuel transfer pump has already failed per Random Event (see Table 4-9), roll 1D first: “1-3” = failed pump hit, no further effect, “4-6” = remaining pump hit. (If *both* pumps have already failed, then there is no effect).

Table 7-5 WINGS**Roll 2D:**

| Dice | Area Hit | Effect |
|------|------------------------|---|
| 2 | Gyro Flux Gate Compass | Port wing = apply a –1 modifier when rolling on Table 4-5; starboard wing = No Effect. |
| 3 | Wing Root | 1 wing root hit, see Note (a) |
| 4 | Compressed Air Duct | 1 st hit = No Effect, 2 nd hit (anywhere in B-29 except Utility compartment) = Roll 1D: “1-4” = No Effect, “5-6” = Pressurization capability lost <i>throughout</i> B-29 (see Sections 4.2, 7.2, 7.3) |
| 5 | Wing Flap | Roll 1D: “1-3” = flap inoperable, see Note (b) ; “4-6” = No Effect. |
| 6 | Aileron | Roll 1D: “1-3” = aileron inoperable, see Note (c) ; “4-6” = No Effect. |
| 7-8 | Superficial Damage | No Effect. |
| 9 | Fuel Tank | Roll 1D: “1-3” = Outboard tank, “4-6” = Inboard tank. Roll 1D again: “1” = Fire, see Note (d) , “2-3” = Leakage, see Note (e) , “4-6” = Self-seal, No Effect |
| 10 | Engines | Roll 1D: “1-3” = #1 engine if port wing, #3 engine if starboard wing; “4-6” = #2 engine if port wing, #4 engine if starboard wing. Roll 1D again: “1-2” = superficial damage; “3-4” = engine out, see Note (f) ; “5” = runaway engine, see Note (g) ; “6” = oil tank hit, see Note (h) |
| 11 | Wing Root | 1 wing root hit, see Note (a) |
| 12 | Landing Gear | Roll 1D: “1-2” = brake reliability on landing reduced, apply a –2 modifier when rolling for landing on Table 8-1; “3-5” = landing gear inoperable, see Note (n) ; “6” = gear drops down, see Note (o) |

Notes to Table 7-5 see next page.

Notes to Table 7-5, as applicable:

- a) when a wing root has accumulated 5 hits over the course of a mission, the wing rips off and the crew must immediately bail out according to Table 8-5. Note that wing root damage can also be inflicted on Tables 4-9 and 6-9.
- b) If both the port and starboard wing flaps are inoperable, apply a **-1** modifier to the landing roll on Tables 8-1 and 8-3.
- c) If both the port and starboard wing ailerons are inoperable, apply a **-1** modifier to the landing roll on Tables 8-1 and 8-3.
- d) Roll 1D: “**1**” = Explosion, bail out on Table 8-5; “**2-6**” = Fire continues. If at ‘LO’ altitude, the crew must immediately bail out on Table 8-4. If at ‘MED’ or ‘HI’ altitude (only), an attempt may be made to extinguish the fire by diving (any number of crewmembers may bail out on Table 8-4 first). When diving, roll one die—if the result is less than or equal to the number of wing root hits on either wing (not both wings added together), the wing snaps off in the dive; roll for uncontrolled bail out on Table 8-5. Otherwise, roll 1D again, subtract one (-1) if diving from “HI” altitude: ‘1’ (or less) = fire extinguished, plane ‘Out of formation’ (if applicable) and at “LO” altitude, roll for leakage per note (e); ‘2-4’ = fire spreads, roll for bail out on Table 8-4; ‘5-6’ = plane out of control, or explosion occurs, roll for uncontrolled bail out on Table 8-5.
- e) Roll 1D; subtract two (**-2**) from the die roll if both B-29 fuel pumps are operating; subtract one (**-1**) to the die roll if one B-29 fuel pump has failed (Table 4-9) and/or is damaged (Table 7-4), but the other is operational. (**Exception:** no modifier is subtracted if fuel transfer controls have been damaged on Table 7-10.) The final result is the number of fuel tank boxes that must be *immediately* crossed off. If the result is modified to “0”, no boxes are crossed off (the flight engineer has succeeded in transferring fuel out of the tank such that the loss is negligible). Cross off requirements for leakage do not satisfy fuel consumption requirements (see Section 4.3). Auxiliary fuel tank boxes (see Section 2.3) may not be used to satisfy leakage cross off requirement. If the same leaking fuel tank is hit again, do not roll for damage, there is no additional effect. In the event of wing fuel tank leakage, additional fuel tank box(es) are only crossed off (as applicable) on the turn of damage, not each turn.
- f) Engine out. Roll 1D: “**1-4**” = propeller feathered (one engine out, see Section 7.2), pilot may abort mission; “**5-6**” = feathering fails, speed is reduced due to drag—two turns per zone beginning immediately (i.e., three turns total in the Designated Target Zone—one for flight in, two for flight out—with one fuel box marked off for each extra turn spent in each zone).
- g) Runaway engine. Roll 1D: “**1-4**” = propeller feathered (one engine out, see Section 7.2), pilot may abort mission; “**5-6**” = feathering fails, runaway prop, see **Note (l)**
- h) Oil tank hit. Roll 1D: “**1-2**” = engine fire (roll 1D to attempt to extinguish: “1” = Fire out, pilot must abort; “2-6” = Fire continues—try again; if second try fails, see **Note (p)**); “**3-4**” = leakage (roll 1D: “1-2” = engine must be shut off after one more turn, not counting the current turn; “3-4” = shut off engine after two more turns, “5-6” = shut off engine after three more turns; after engine shut down, see **Note (i)**), “**5-6**” = Self-seal, no effect.
- Design Note:** Players familiar with B-17, *QUEEN OF THE SKIES* may balk at the difficulty with extinguishing engine fires in *SUPERFORTRESS* but B-29 engine fires were notoriously difficult to put out. The engine firewall was woefully inadequate and the fire extinguisher system succeeded in putting out only seven of fifty-two fires reported through June 1945 (part of the problem was that parts of the engine were made of magnesium which burned easily and hotly). Adequate cooling of the R-3350 was a continuing challenge and as a result fire in the engine was perhaps the greatest fear of B-29 aircrews. A 1945 report disclosed that the rate of fire in the B-29 was four times that in the B-17 or B-24.
- i) Roll 1D, and add one (+1) to this roll if this is a “Night” mission (reflecting the difficulty in visually identifying the leak, and reacting in a timely manner): “**1-4**” = propeller feathered (one engine out, see Section 7.2), pilot may abort mission; “**5-6+**” = feathering fails, windmilling prop, see **Note (j)**
- j) In the event feathering fails, roll 1D again: “**1-5**” = no effect, pilot must abort, see **Note (k)**; “**6**” = engine catches fire, roll 1D to attempt to extinguish: “1” = Fire out, pilot must abort; “2-6” = Fire continues—try again. If second try fails, see **Note (p)**.

- k)** If prop is windmilling and there is no fire, roll 1D each turn, beginning with the current turn: “**1-5**” = No effect, prop continues to windmill, “**6**” = runaway propeller, see **Note (l)**. In the event of runaway propeller, immediately repeat the die roll per **Note (j)** above to see if engine catches fire. Continue to check for fire each turn as long as the propeller continues to runaway. Note that a windmilling propeller causes a **-2** modifier on Landing rolls on Tables 8-1 and 8-3.
- l)** Each turn that the runaway prop continues and there is no fire (make the fire check in **Note (j)** first each turn before continuing this procedure), roll 1D: “**1**” = runaway halted, propeller returns to windmilling, beginning with the next turn return to the procedure in **Note (k)**, “**2-3**” = runaway continues, no additional effect this turn, “**4**” = runaway continues, one wing root hit is inflicted on affected wing (effect of excessive vibration), “**5-6**” = centrifugal explosion of the propeller, destruction of the engine, see **Note (m)**. Note that a runaway propeller causes a **-3** modifier on Landing rolls on Tables 8-1 and 8-3.
- m)** In the event of centrifugal explosion of the propeller/destruction of the engine, roll 1D; subtract one (-1) for *each* of the following conditions (cumulatively) that may apply—either wing aileron out (-2 if both out), rudder out: “**1**” = aircraft falls out of control, crew must immediately bail out on Table 8-5, “**2-6**” = damage due to flying pieces of propeller and/or engine. Roll 1D again:
- If this an outboard engine (engine #1 or #4), apply the following: “**1-4**” = superficial damage (e.g., propeller spins harmlessly away), “**5**” = inboard engine (same wing) damage, see result #10 of this Table for the affected engine (treat as one engine hit), “**6**” = damage to inboard engine (same wing) and fuselage. See result #10 on this Table for the affected engine (treat as one engine hit), then inflict one wing root hit on the affected wing, *then* roll 1D again for the number of hits on the Nav/Radio Compartment—roll that many times on Table 7-2.
 - If this an inboard engine (engine #2 or #3), apply the following: “**1-2**” = superficial damage (e.g., propeller spins harmlessly away), “**3-4**” = outboard engine (same wing) damage, see result #10 on this Table for the affected engine (treat as one engine hit), “**5-6**” = damage to fuselage: inflict one wing root hit on the affected wing then roll 1D again for the number of hits on the Nav/Radio Compartment—roll that many times on Table 7-2.
- n)** Manual operation of the gear may be attempted once. A functioning crewmember must be in the aft bomb bay to attempt manual lowering, unless a flak BIP has occurred in the aft bomb bay, thus damaging the manual controls. Roll 1D: “**1-2**” = gear may be lowered, “**3-6**” = manual lowering unsuccessful. If the landing gear on either or both sides is inoperable, apply a **-3** modifier to the landing roll on Table 8-1. The modifier is not cumulative with the nose gear (Table 7-1) modifier (i.e., the maximum modifier even if both nose and main gear is not lowered is **-3**).
- o)** Manual operation of the gear may be attempted once per Zone entered. A functioning crewmember must be in the aft bomb bay to attempt manual raising, unless a flak BIP has occurred in the aft bomb bay, thus damaging the manual controls. Roll 1D: “**1-2**” = landing gear is raised (see **Note (n)** for lowering the gear for landing); “**3-6**” = gear remains inoperable. As long as the landing gear remains lowered, speed is reduced due to drag—two turns per zone beginning immediately (i.e., three turns total in the Designated Target Zone—one for flight in, two for flight out—with one fuel box marked off for each extra turn spent in each zone).
- p)** *For uncontrollable engine fire at ‘LO’ altitude, the player must decide if the crew immediately bails out on Table 8-4, or continues flying with a burning engine. If the crew does not immediately bail out, then roll one die:*
- ‘1-2’ = fire continues, engine is considered ‘out’ (i.e., inoperable), see rule 7.2;
 - ‘3-4’ = fire spreads, immediately roll for bail out on Table 8-4;
 - ‘5’ = fire spreads rapidly and control is lost, roll for uncontrolled bail out on Table 8-5;
 - ‘6’ = explosion, plane is destroyed, all crewmembers are KIA.
- For engine fire at ‘MED’ or ‘HI’ altitude (only), an attempt may first be made to extinguish the fire by diving (any number of crewmembers may bail out on Table 8-4 first). When diving, roll one die—if the result is less than or equal to the number of wing root hits on either wing (not both wings added together), the wing snaps off in the dive; roll for uncontrolled bail out on Table 8-5. Otherwise, roll 1D again, subtract one (-1) if diving from ‘HI’ altitude:*
- ‘1’ (or less) = fire extinguished, plane ‘Out of formation’ (if applicable), at ‘LO’ altitude, engine is considered ‘out’ (i.e., inoperable), see rule 7.2;
 - ‘2’ = same as roll #1 except fire continues; in this case, immediately consult the verbiage above for uncontrollable engine fire at ‘LO’ altitude (i.e., the choice now is bail out or risk sticking with the plane)
 - ‘3-4’ = fire spreads, roll for bail out on Table 8-4;
 - ‘5-6’ = plane out of control, roll for uncontrolled bail out on Table 8-5.
- In either case, if a ‘fire continues’ result is received, re-roll on all subsequent turns to see if fire spreads, results in explosion, or merely festers. The crew may always bail out prior to making this die roll.”*

Table 7-6 WAIST**Roll 2D:**

| Dice | Area Hit | Effect |
|------|------------------------------|--|
| 2 | Oxygen Supply | Roll 1D: “1” = CFC, “2” = Left Gunner, “3” = Right Gunner, “4” = Radar Observer, “5” = Fire, roll to extinguish (see Section 7.5) on Table 7-12, and all Waist compartment oxygen out, “6” = roll again. See Section 7.4. Also, see Note (a) . |
| 3 | Master Gunnery Control Panel | Roll 1D: “1” = Forward Upper Turret inoperable, “2” = Aft Upper Turret inoperable, “3” = Forward Lower Turret inoperable, “4” = Aft Lower Turret inoperable, “5” = Tail guns may <u>only</u> be fired by Tail Gunner, “6” = Forward and Aft Upper and Lower Turrets inoperable, tail guns may <u>only</u> be fired by Tail Gunner. Inoperable guns may not fire. See Table 5-6. Also, see Note (a) . |
| 4 | Ammunition Box | Roll 2D: result is the number of bursts (boxes) of ammunition for the Aft Upper Turret that should be crossed off as destroyed. Also, see Notes (a) and (b) . |
| 5 | Blister | Roll 1D: “1-2” = Left Gunner Blister, “3-4” = Right Gunner Blister, “5-6” = CFC Blister. 1 st hit to that blister = No Effect; 2 nd hit to that blister = roll for wound for applicable gunner on Table 7-13 and pressurization capability is “compromised,” Waist compartment may not be pressurized (see Sections 4.2, 7.2, 7.3). If currently pressurized, roll for Explosive Decompression on Table 7-11 |
| 6 | Crewmember | Roll 1D: “1” = CFC, “2” = Left Gunner, “3” = Right Gunner, “4” = Radar Observer, “5” = CFC and Left Gunner, “6” = CFC and Right Gunner. Roll for wound on affected crewmember(s) on Table 7-13. See Note (a) . |
| 7 | Superficial Damage | No Effect. |
| 8 | Radar Set | Apply a +1 modifier when rolling on Table 4-3, and a –1 modifier on Table 6-6. A non-functional radar also negates modifiers to Table 6-6. Also, see Note (a) . |
| 9 | Armament | Aft Upper Turret inoperable (guns may not fire) |
| 10 | Gunsight | Roll 1D: “1-2” = Left Gunner gunsight, “3-4” = Right Gunner gunsight, “5-6” = CFC gunsight. Applicable position may not fire guns (see Table 5-6). See Note (a) . |
| 11 | Superficial Damage | No Effect. |
| 12 | Fire Extinguisher | Waist fire extinguisher destroyed and unusable, remove marker from Crew Placement Sheet. Also, see Note (a) . |

Notes to Table 7-6, as applicable:

a) Roll 1D: “1-5” = no additional effect, “6” = Pressurization capability “compromised,” Waist compartment may not be pressurized (see Sections 4.2, 7.2, 7.3), roll 1D again if currently pressurized: “1-5” = no additional effect, “6” = roll for Explosive Decompression on Table 7-11 (Waist compartment).

b) If ammunition for the Aft Upper Turret remains *before* rolling for destroyed ammunition, then roll 1D and halve result (round down). (If no ammunition remains then treat this note as no further effect.) The halved result is the number of additional times the player must roll on this Table (7-6) to account for the effects of exploding ammunition. The “Ammunition Box” result (#4) may be rolled again in this case, triggering additional damage rolls.

*B-29 Superfortress bombers taxiing through West Field, Tinian, Mariana Islands, 1945.*

Table 7-7 UTILITY**Roll 2D:**

| Dice | Area Hit | Effect |
|---|---------------------------------------|--|
| 2 | Compressed Air Duct | 1 st hit = No Effect, 2 nd hit (this compartment only) = Roll 1D: “1-4” = No Effect, “5-6” = Pressurization capability lost in Tail compartment (only) (see Section 4.2) |
| 3 | Ammunition Feed Trays | Apply a –1 modifier when resolving defensive fire from tail guns (only) on Table 5-7 for <u>each</u> (cumulative) Utility compartment ammunition feed tray hit. |
| 4 | Superficial Damage | No Effect |
| 5 | Ammunition box | Roll 2D: result is the number of bursts (boxes) of ammunition for the Tail Turret that should be crossed off as destroyed. Also, see Note . |
| 6 | Oxygen containers | 1 st hit = No Effect, 2 nd hit = Fire, crewman must enter Utility compartment from adjacent compartment (Waist or Tail) and roll to extinguish (see Section 7.5) on Table 7-12. <u>All</u> B-29 crew oxygen is out. See Section 7.4. |
| 7 | Superficial Damage | No Effect. |
| 8 | Auxiliary Generator (“Putt Putt”) | See Table 7-10, “Electrical System” result (note c.) for effect. |
| 9 | Armament | Aft Lower Turret inoperable (guns many not fire) |
| 10 | Gasoline Tank for Auxiliary Generator | 1 st hit = leakage, auxiliary generator inoperable (see result #8), 2 nd hit = Fire, Fire, crewman must enter Utility compartment from adjacent compartment (Waist or Tail) and roll to extinguish (see Section 7.5) on Table 7-12. |
| 11 | Superficial Damage | No Effect. |
| 12 | Fire Extinguisher | Utility fire extinguisher destroyed and unusable, remove marker from Crew Placement Sheet. Also, see Note . |
| Damage to the Auxiliary Generator (result #8) <i>only</i> affects play if the aircraft’s electrical system is knocked out. See the verbiage regarding asterisked items in Note (c) of Table 7-10. | | |

Note: If ammunition for the Tail Turret remains *before* rolling for destroyed ammunition, then roll 1D and halve result (round down). (If no ammunition remains then treat this note as no further effect.) The halved result is the number of additional times player must roll on this Table (7-6) to account for the effects of exploding ammunition. The “Ammunition Box” result (#4) may be rolled again in this case, triggering additional damage rolls

Table 7-8 TAIL**Roll 2D:**

| Dice | Area Hit | Effect |
|------|----------------------|---|
| 2 | Oxygen Supply | Roll 1D: “1-5” = Tail Gunner oxygen out; “6” = Fire, roll to extinguish (see Section 7.5) on Table 7-12, and all Tail compartment oxygen out. See Section 7.4. Also, see Note (a) . |
| 3 | Tail Gunner Gunsight | Tail Gunner may not fire tail guns or tail cannon (if present) (see Table 5-6) See Note (a) . |
| 4 | Superficial Damage | No Effect |
| 5 | Tail Gunner | Roll for wound on Table 7-13. See Note (a) . |
| 6 | Superficial Damage | No Effect |
| 7 | Rudder | 1 st and 2 nd hits = no effect, 3 rd hit = rudder is inoperable, apply a –1 modifier to landing rolls on Tables 8-1 and 8-3. |
| 8 | Tailplane | Roll 1D: “1-2” = no effect, “3” = port elevator inoperable, see Note (b) , “4” = starboard elevator inoperable, “5” = port tailplane root hit, see Note (c) , “6” = starboard tailplane root hit, see Note (c) |
| 9 | Armament | Tail Turret inoperable (tail guns and tail cannon many not fire) |
| 10 | Tailplane | See effect for roll #8 |
| 11 | Superficial Damage | No Effect |
| 12 | Superficial Damage | No Effect. |

Notes to Table 7-8, as applicable:

a) Roll 1D: “1-5” = no additional effect, “6” = Pressurization capability “compromised,” Tail compartment may not be pressurized (see Sections 4.2, 7.2, 7.3), roll 1D again if currently pressurized: “1-5” = no additional effect, “6” = roll for Explosive Decompression on Table 7-11 (Tail compartment).

b) If both port and starboard elevators are inoperable, apply a –1 modifier to landing rolls on Tables 8-1 and 8-3.

c) If tailplane root accumulates three (3) hits during a mission, that tailplane (port or starboard) rips off. If one tailplane rips off, apply a –1 modifier to landing rolls on Tables 8-1 and 8-3. If both tailplanes come off, crew must bail out immediately on Table 8-5.

Table 7-9 COCKPIT INSTRUMENTS**Roll 2D:**

| Dice | Area Hit | Effect |
|------|-------------------------|--|
| 2 | Pilot Flight Controls | Pilot's controls are dead, airplane may not be controlled from Pilot position (Pilot and Copilot may switch positions at any time without penalty). See Note (a) . |
| 3 | Alarm Bell | See Note (b) |
| 4 | Landing Gear | See Note (c) . |
| 5 | Elevators | 1 st hit = no effect, 2 nd hit = elevators are inoperable, apply a -1 modifier to landing rolls on Tables 8-1 and 8-3. Disregard if port or starboard tailplane (see Table 7-8) has ripped off. |
| 6 | Automatic Pilot | Apply a -2 modifier on Table 6-6 (exception: do <u>not</u> apply this modifier if this is a U/A mission). Also, see Note (d) . |
| 7 | Superficial Damage | No Effect |
| 8 | Rudder | 1 st hit = no effect, 2 nd hit = rudder is inoperable, apply a -1 modifier to landing rolls on Tables 8-1 and 8-3. Disregard if rudder (see Table 7-8) is already inoperable. |
| 9 | Ailerons | 1 st hit = no effect, 2 nd hit = ailerons are inoperable, apply a -1 modifier to landing rolls on Tables 8-1 and 8-3. Disregard if both port and starboard ailerons (see Table 7-5) are already inoperable. |
| 10 | Feathering | Any future feathering attempt required by Table 4-9 or 7-5 <i>automatically</i> fails and results in windmilling or runaway prop (as applicable to the specific result of those Tables). |
| 11 | Flaps | See Note (e) . |
| 12 | Copilot Flight Controls | Copilot's controls are dead, airplane may not be controlled from Copilot position (Pilot and Copilot may switch positions at any time without penalty). See Note (a) . |

Notes to Table 7-9, as applicable:

a) If *both* Pilot and Copilot flight controls are inoperable, roll 2D. Subtract one (-1) for each engine that is not fully functional. Halve the result (round down) if the autopilot is out (see result #6). The final modified number is the number of additional zones (i.e., not including the current one) that the B-29 may enter before the crew must bail out on Table 8-4. (In this case, the plane is flyable for a time using throttles and/or autopilot). If the result is modified to zero or less, crew must bail out immediately. Note that a plane with inoperable Pilot and Copilot controls may never be landed.

b) If intercom is *also* out (see Table 7-2), apply a **-1** modifier when rolling on Table 8-4 for crewmembers bailing out from any section or compartment *other than* the Nose and Nav/Radio sections. Also, if intercom is out *and* the B-29 voluntarily or involuntarily engages in a shallow or steep dive (i.e., as the result of possible collision on Tables 4-3 and 4-9) or in an attempt to extinguish an engine or fuel tank fire, roll 1D for each crewmember in any section or compartment *other than* the Nose and Nav/Radio sections: “**1-3**” = crewmember bails out on Table 8-4, “**4-6**” = crewmember stays put.

c) Manual lowering of the **main landing gear** may be attempted once prior to landing. A functioning crewmember must be in the aft bomb bay to attempt manual lowering, unless a flak BIP has occurred in the aft bomb bay, thus damaging the manual controls. Roll 1D: “**1-5**” = gear may be lowered, “**6**” = manual lowering unsuccessful. (This result is superceded by damage to landing gear on Table 7-5). If the main gear does not lower, apply a **-3** modifier to the landing roll on Table 8-1. Similarly, manual extension of the **nose landing gear** may be attempted *twice* prior to landing, roll 1D for each attempt: “**1-5**” = nose gear successfully extended, “**6**” = gear fails to extend. (This result is superceded by damage to nose gear on Table 7-1). If second attempt to extend nose gear fails, apply a **-3** modifier on the landing roll on Table 8-1. The nose gear modifier is not cumulative with the main landing gear modifier (i.e., the maximum modifier even if both nose and main gear is not lowered is -3).

d) If autopilot is out and bail out is required, Pilot (or Copilot, of whoever is considered to be last flying the plane) must roll on Table 8-5 (bail out from uncontrolled plane) if not already required. Also, see note (**a**).

e) A manual attempt to extend the flaps may be attempted prior to landing (**exception:** if both the port and starboard wing flaps (see Table 7-5) are already inoperable then no attempt may be made). The attempt requires one functioning crewmember (normally the flight engineer) spend the turn just prior to landing in the forward bomb bay (see Section 4.2 for pressurization rules, if applicable) to attempt emergency operation of the flaps using a portable electric motor installed for the purpose. Roll 1D: “**1-5**” = door(s) successfully opened/closed, “**6**” = motor burns out. If motor burns out, no further attempt to extend the flaps may be attempted. If flaps are inoperable, apply a **-1** modifier to landing rolls on Tables 8-1 and 8-3.

Table 7-10 ENGINEER INSTRUMENTS**Roll 2D:**

| Die | Area Hit | Effect |
|-----|--------------------------|--|
| 2 | Superficial Damage | No Effect. |
| 3 | Fuel Transfer Controls | See Note (a) . |
| 4 | Engine Fire Extinguisher | Engine fire extinguishers out. See Note (b) . |
| 5 | Hydraulic Controls | Brake reliability on landing is reduced. Apply a -2 die roll modifier when rolling on Table 8-1, "Landing on Land." |
| 6 | Superficial Damage | No Effect. |
| 7 | Fuel Indicators | See Table 4-9, "Flight Engineer Reports New Fuel Status" result (note f.) for effect. |
| 8 | Superficial Damage | No Effect. |
| 9 | Pressurization Controls | Roll 1D: "1-2" = if pressurized any time during the mission, B-29 may <u>not</u> be voluntarily depressurized from the flight engineer position; "3-4" = if depressurized any time during the mission, B-29 may not be pressurized again, "5-6" = pressurization is permanently lost throughout the aircraft |
| 10 | Engine Cooling Controls | See Table 4-9, "Engine Malfunction" result (note e.) for effect. |
| 11 | Electrical System | 1 st hit = no effect, 2 nd hit = electrical system failure, pilot may abort, see Note (c) . |
| 12 | Superficial Damage | No Effect. |

Notes to Table 7-10, as applicable:

a) No auxiliary fuel tank boxes may be checked off (the tanks may be jettisoned). Also, see the "Fuel Tank Leakage" damage result (Table 7-5).

b) For uncontrollable engine fire at 'LO' altitude, the player must decide if the crew immediately bails out on Table 8-4, or continues flying with a burning engine. If the crew does not immediately bail out, then roll one die:

'1-2' = fire continues, engine is considered 'out' (i.e., inoperable), see rule 7.2;

'3-4' = fire spreads, immediately roll for bail out on Table 8-4;

'5' = fire spreads rapidly and control is lost, roll for uncontrolled bail out on Table 8-5;

'6' = explosion, plane is destroyed, all crewmembers are KIA.

For engine fire at 'MED' or 'HI' altitude (only), an attempt may first be made to extinguish the fire by diving (any number of crewmembers may bail out on Table 8-4 first). When diving, roll one die—if the result is less than or equal to the number of wing root hits on either wing (not both wings added together), the wing snaps off in the dive; roll for uncontrolled bail out on Table 8-5. Otherwise, roll 1D again, subtract one (-1) if diving from 'HI' altitude:

'1' (or less) = fire extinguished, plane 'Out of formation' (if applicable), at 'LO' altitude, engine is considered 'out' (i.e., inoperable), see rule 7.2;

'2' = same as roll #1 except fire continues; in this case, immediately consult the verbiage above for uncontrollable engine fire at 'LO' altitude (i.e., the choice now is bail out or risk sticking with the plane)

'3-4' = fire spreads, roll for bail out on Table 8-4;

'5-6' = plane out of control, roll for uncontrolled bail out on Table 8-5.

In either case, if a 'fire continues' result is received, re-roll on all subsequent turns to see if fire spreads, results in explosion, or merely festers. The crew may always bail out prior to making this die roll."

c) No "Evasive Action" allowed (see Section 5.7). Also, the following are inoperable (although reference the asterisks for possible exceptions) for the remainder of the mission:

- LORAN set (see Table 4-7 for effect)
- Radio* (see Table 7-2, roll #5 for effect)
- Radar (see Table 7-6, roll #8 for effect)
- Fuel Transfer (see **Note (a)**)
- Elevators (see Table 7-9, roll #5 for effect)
- Automatic pilot* (see Table 7-9, roll #6 for effect)
- Rudder (see Table 7-9, roll #8 for effect)
- Ailerons (see Table 7-9, roll #9 for effect)
- Feathering (see Table 7-9, roll #10 for effect)
- Bomb bay doors (forward and aft) (see **Note (d)**)
- Main Landing gear (see **Note (e)**)
- Nose gear* (see **Note (f)**)
- Wing flaps (see **Note (g)**)
- Hydraulic pump* (see Table 7-10, roll #5 for effect)
- Intercom (see **Note (h)**)
- Engine cooling (see Table 7-10, roll #10 for effect)
- All gun turrets (no B-29 guns may fire)

An asterisked (*) item may be operated at “LO” altitude (only) *if* (and only “if”) the auxiliary generator (see Table 7-7) is operable. Only one such item (player’s choice) may be operated *per turn*. A functional crewmember must be in the Utility compartment on any turn that the auxiliary generator is used. To utilize *both* nose gear and hydraulic pump for landing, the nose gear must be lowered in the Zone prior to landing. In this case, the aircraft must spend 2 turns in that Zone (to reflect drag), with fuel box(es) crossed off normally *per turn*.

Design Note: *To a much greater extent than any previous bomber, the B-29 was an electric aircraft. Eleven miles of wiring in two buses—a normal bus and an emergency bus—connected 150 electric motors with six engine-driven generators (plus an auxiliary generator, or “putt putt”, capable of providing very limited power in an emergency). The B-29’s electrical system reduced in the plane’s vulnerability in combat because hydraulic lines were more susceptible to damage and fire. In fact, the only hydraulics in the B-29 were in the brakes.*

d) Treat as “no effect” if bomb run has already been accomplished. If this result occurs *prior* to the bomb run, two options are possible: (1) bombs may be immediately salvoed (unarmed) using emergency mechanical release (**exception:** if doors themselves are damaged or jammed, use the *first* die range given in note e. of Table 7-3 for opening the doors), the bomb run is automatically “Off Target”; (2) if the auxiliary generator (see Table 7-7) is operable, an attempt to open the doors manually may be made, one bomb bay (forward or aft) per turn, once per bomb bay. Each attempt requires aircraft be at “LO” altitude, a functioning crewmember in the Utility compartment, and one functioning crewmember (normally the flight engineer) spend one turn in the applicable bomb bay (see Section 4.2 for pressurization rules, if applicable) to attempt emergency operation of the door using a portable electric motor installed for the purpose (assisted by the “putt putt”). Roll 1D (**exception:** if doors themselves are damaged or jammed, use the *second* die range given in note e. of Table 7-3 for opening the doors): “**1-5**” = door(s) successfully opened/closed, “**6**” = motor burns out (this may also affect emergency flap operation—see Table 7-9, “Flaps” result (note e.)). If motor burns out, no further attempt to actuate any door(s) may be attempted. If any doors are opened prior to the Designated Target Zone, then the bomber must permanently leave formation (if applicable). Doors are closed by repeating the above procedure. If for whatever reason, any bomb bay doors fail to close, speed is reduced due to drag—two turns per zone beginning immediately (i.e., three turns total in the Designated Target Zone—one for flight in, two for flight out—with one fuel box marked off for each extra turn spent in each zone). Also, there is a negative modifier for “Landing in Water” (Table 8-3).

e) Manual lowering of the main landing gear may be attempted once prior to landing. A functioning crewmember must be in the aft bomb bay to attempt manual lowering, unless a flak BIP has occurred in the aft bomb bay, thus damaging the manual controls. Roll 1D: “**1-5**” = gear may be lowered, “**6**” = manual lowering unsuccessful. (This result is superceded by damage to landing gear on Table 7-5). If the main gear does not lower, apply a **–3** modifier to the landing roll on Table 8-1.

f) Manual extension of the nose landing gear may be attempted *once* prior to landing, roll 1D: “**1-5**” = nose gear successfully extends, “**6**” = gear fails to extend. (This result is superceded by damage to nose gear on Table 7-1). If attempt to extend nose gear fails, apply a **–3** modifier on the landing roll on Table 8-1. The nose gear modifier is not cumulative with the main landing gear modifier (i.e., the maximum modifier even if both nose and main gear is not lowered is **–3**).

g) If auxiliary generator (see Table 7-7) is operable, a manual attempt to extend the flaps may be attempted prior to landing (**exception:** if both the port and starboard wing flaps (see Table 7-5) are already inoperable then no attempt may be made). The attempt requires aircraft be at “LO” altitude, a functioning crewmember be in the Utility compartment, and one functioning crewmember (normally the flight engineer) spend the turn just prior to landing in the forward bomb bay (see Section 4.2 for pressurization rules, if applicable) to attempt emergency operation of the flaps using a portable electric motor installed for the purpose (assisted by the “putt putt”). Roll 1D: “**1-5**” = door(s) successfully opened/closed, “**6**” = motor burns out. If motor burns out, no further attempt to extend the flaps may be attempted. If flaps are inoperable, apply a **–1** modifier to landing rolls on Tables 8-1 and 8-3.

h) Apply a **+2** modifier when rolling for crewmembers going on oxygen for depressurization (see Section 4.2) and a **–1** modifier on Table 6-6.

Table 7-11 EXPLOSIVE DECOMPRESSION

Roll 1D:

| Die | Effect |
|-----|---|
| 1-5 | See Note . |
| 6 | Roll for wound for each crewmember in the affected compartment on Table 7-13. Then, see Note . |

Note: For any and all crewman in the affected compartment, roll 1D:

“1-5” = crewman successfully on oxygen;

“6” = crewman fails attempt to go on oxygen, roll for wound on Table 7-13.

All other crewmembers in other B-29 compartments must go on oxygen as well, see Section 4.2. (Note that it is possible to roll per this rule for oxygen malfunction for a surviving crewman in a compartment suffering explosive decompression.)

***Design Note:** Explosive decompression does not automatically follow a puncture in an aircraft's pressurization. Moreover, explosive decompression jeopardizes an aircraft's inherent flight worthiness only in very rare and extraordinary circumstances—although it can be very harmful to the crew in the decompressed compartment. Explosive decompression is a change in cabin pressure faster than the lungs can decompress, and can result in lung damage. Even without lung damage, unconsciousness can occur in a very short period of time unless oxygen is used. The period of useful consciousness is considerably shortened when a person is subjected to rapid decompression because of the swift reduction in pressure on the body (this causes oxygen in the lungs to exhale rapidly). Partial pressure of oxygen in the blood can reduce an aircrew's effective performance time by 1/3 to 1/4 its normal time. Another hazard of course is being tossed or blown out of the airplane if near a large opening and not wearing seatbelts/safety harnesses.*

Table 7-12 HAND HELD EXTINGUISHERS

Roll 2D per attempt to extinguish fire:

| Die | Effect |
|-------|----------------------------------|
| ≤2-9 | Fire out. |
| 10-12 | Fire continues. See Section 7.5. |

Modifier: -1 if depressurized at “MED” or “HI” altitude

Table 7-13 WOUNDS

Roll 1D per affected crewmember:

| Die | Effect |
|------|--|
| ≤1-3 | Light Wound: Crewman may continue duties unimpaired. See Note (a) . |
| 4,5 | Serious Wound: Crewman may <u>not</u> continue duties, may not bail out. See Note (b) . |
| 6 | KIA: Crewman killed in action. |

A serious wound result to a crewmember already seriously wounded results in a KIA. As noted on Table 8-4, a seriously wounded crewman may not bail out.

Modifier: -1 if directed to this Table from Table 6-9 “Impact of Thermal Turbulence”

Notes: **a)** A 2nd light wound results in a -1 modifier applied to any bail out roll on Table 8-4, and the loss of any “veteran” (fourteen or more missions) bonus (i.e., applicable to pilot, navigator, flight engineer, or radar operator). Three light wounds = a serious wound, four light wounds = KIA, light wound + serious wound = KIA.

b) After landing, roll 1D for each serious wounded crewman: “1” = rapid recovery, may fly next mission; “2-5” = crewman recovers but may not fly any more missions, “6” = wounds fatal, crewman dies.

Table 7-14 FROSTBITE

Roll 1D per affected crewmember:

| Die | Effect |
|-----|---|
| 1-2 | Frostbite. Crewman may <u>not</u> continue duties. See Section 7.3. |
| 3-6 | No frostbite this turn. |

Note: After landing, roll 1D for each frostbitten crewman: “1-3” = crewman recovers, may fly next mission; “4-6” = crewman may not fly any more missions.

Modifiers (cumulative):

+1 if rolling for a crewmember in any of the following compartments: Nose, Nav/Radio, Waist, Tail. This modifier only applies if the pressurization capability of the compartment has not been “compromised” by previous damage result.

+1 if the aircraft is voluntarily depressurized

8.0. ENDING THE MISSION TABLES

Table 8-1 LANDING ON LAND

Roll 2D:

| Dice | Effect |
|-------|--|
| ≤-3 | Crew KIA and B-29 wrecked |
| -2 | Roll for wound for each crewmember on Table 7-13 (add +1 to each die roll); B-29 wrecked |
| -1 | Roll for wound for each crewmember on Table 7-13; B-29 wrecked |
| 0 | Crew safe but B-29 irreparably damaged |
| 1 | Crew safe and B-29 repairable for next mission |
| 2-12+ | Crew and B-29 safe |

Modifiers (cumulative):

- +1 if pilot is *veteran* (fourteen or more missions) (this modifier may not be applied to veteran *copilot*)
- -1 if nose gear damaged (see Table 7-1)
- -1 if port and starboard wing flaps inoperable
- -1 if port and starboard ailerons inoperable
- -1 if port and starboard elevators inoperable
- -1 if rudder inoperable
- -1 for second windshield hit in Nose section (see Table 7-1)
- -1 if either port or starboard tailplane has ripped off (see Table 7-8)
- -1 for each engine out
- -2 if “brake reliability on landing reduced” (see Tables 4-9, 7-1, 7-5, 7-10)
- -2 for each windmilling prop
- -2 if weather is “Poor” (see Table 4-2)
- -2 if landing at night (see Table 3-1)
- -2 if flak BIP occurred in Nav/Radio, Bomb Bay, Waist, or Utility compartments
- -3 if weather is “Bad” (see Table 4-2)
- -3 for each runaway prop
- -3 if nose and/or main landing gear will not extend / is inoperable
- -4 if nose gear will extend but not hold (see Table 7-1)
- -4 if landing in Japan (see Section 8.4)
- -6 if brake capability is completely lost (see Table 7-2)
- -10 if pilot and copilot are dead or seriously wounded and another crewmember is attempting to land the plane

Notes:

- An unmodified roll of “12” is always “crew safe” regardless of negative modifiers in effect
- If crash landing in Japan, each surviving crewmember is captured, roll for each on Table 8-7
- If roll is 0 or less and *bombs are still aboard*, roll 1D: “1-5” = no effect; “6” = explosion, B-29 destroyed and all remaining crew KIA.
- If roll is 0 or less, roll 2D: if the result is less than the number of fuel the boxes the B-29 has remaining, roll 1D; “1-5” = no effect; “6” = fire and explosion, B-29 destroyed and all remaining crew KIA.

Table 8-2 SEA STATE (FOR LANDING IN WATER)

Roll 1D:

| Die | Effect |
|-----|--|
| 1 | Sea state calm, no modifier to Table 8-3, apply a +1 modifier to Table 8-6 |
| 2-3 | Sea state smooth to slight, apply a -1 modifier to Table 8-3, no modifier to Table 8-6 |
| 4 | Sea state moderate, apply a -2 modifier to Table 8-3, no modifier to Table 8-6 |
| 5 | Sea state rough, apply a -3 modifier to Table 8-3, apply a -1 modifier to Table 8-6 |
| 6 | Sea state very rough, apply a -4 modifier to Table 8-3, apply a -1 modifier to Table 8-6 |
| 7 | Sea state high, apply a -5 modifier to Table 8-3, apply a -2 modifier to Table 8-6 |
| 8 | Sea state very high, apply a -6 modifier to Table 8-3, apply a -2 modifier to Table 8-6 |

Modifiers (cumulative):

- +1 if weather in Zone is “Poor” (see Table 4-2)
- +2 if weather in Zone is “Bad” (see Table 4-2)

Table 8-3 LANDING IN WATER

Roll 2D:

| Dice | Effect |
|-------|--|
| ≤2 | B-29 wrecked in ditching attempt; crew KIA |
| 3 | B-29 wrecked in ditching attempt; roll for wound for each crewmember on Table 7-13 (add +1 to each die roll), then for each remaining crewmember roll for survival at sea on Table 8-6 |
| 4 | Successful ditching; roll for wound for each crewmember on Table 7-13, then for each remaining crewmember roll for survival at sea on Table 8-6 |
| 5-12+ | Successful ditching; roll for each crewmember for survival at sea on Table 8-6 |

Modifiers (cumulative):

- +1 if pilot is *veteran* (fourteen or more missions) (this modifier may never be applied to a copilot, even if veteran)
- +1 if weather is “Good” (see Table 4-2)
- - # sea state modifier rolled for in Table 8-2
- -1 if weather is “Bad” (see Table 4-2)
- -1 if bombs are still aboard aircraft (either or both bomb bays) during ditching attempt
- -1 if port and starboard wing flaps inoperable
- -1 if port and starboard ailerons inoperable
- -1 if port and starboard elevators inoperable
- -1 if rudder inoperable
- -1 for second windshield hit in Nose section (see Table 7-1)
- -1 if either port or starboard tailplane has ripped off (see Table 7-8)
- -1 for each engine out
- -2 for each windmilling prop
- -2 if flak BIP occurred in Nav/Radio, Bomb Bay, Waist, or Utility compartments
- -3 if landing at night (see Table 3-1)
- -3 for each runaway prop
- -4 if doors to one bomb bay (forward or aft) are open
- -5 if doors to *both* bomb bays (forward and aft) are open
- -10 if pilot and copilot are dead or seriously wounded and another crewmember is attempting to land the plane

Notes: An unmodified roll of “12” is always “crew safe” regardless of negative modifiers in effect

“Poor” or “Bad” weather may also affect “Sea State (For Landing in Water),” see Table 8-2.

Table 8-4 CONTROLLED BAIL OUT

Roll 1D:

| Die | Effect |
|-----|--|
| ≤1 | Roll 1D: “1-5” = Bail out OK; “6” = Crewman killed in accident |
| 2-6 | Bail out OK |

Modifiers (cumulative):

- -1 if intercom (see Table 7-2) and alarm bell (see Table 7-9) are both inoperable
- -1 for any crewmember with a second light wound (see Table 7-13)

Notes:

a) Roll for each crewman separately.

b) Seriously wounded crewmen may not bail out

c) If unable to depressurize (see Section 4-2) for any reason, roll on Table 7-11 for any pressurized compartment containing one or more exiting crewmembers (in this case, crewmembers do not go on oxygen but they may be wounded/injured)

Table 8-5 BAIL OUT FROM UNCONTROLLED PLANE

Roll 1D:

| Die | Effect |
|-----|---|
| 1-5 | No bail out; crewman goes down with plane |
| 6 | Bail out OK |

Notes:

- a) Roll for each crewman separately.
- b) Seriously wounded crewmen may not bail out
- c) Roll on Table 7-11 for any pressurized compartment containing one or more exiting crewmembers (in this case, crewmembers do not go on oxygen but they may be wounded/injured)

Table 8-6 SURVIVAL AT SEA

Roll 1D:

| Die | Effect |
|------|----------------------------------|
| ≤1-3 | Dies of drowning, exposure, etc. |
| 4-6+ | Rescued, see Note (b) |

Modifiers (cumulative):

- +2 if in Zone 1
- +1 if in Zone 2 or in Zone 6 if Iwo Jima is available as a friendly base (see Section 8.4)
- +/- # sea state modifier rolled for in Table 8-2 prior to landing or after bail out
- +1 if weather in Zone is “Good” (see Table 4-2)
- +1 for “successful ditching” result on Table 8-3. **Exception:** if rubber life rafts in either bomb bay were hit (see Tables 7-3 and 7-4), then this modifier may be applied to no more than **6** crewmen (player’s choice, player must decide which crewmen he will apply the modifier to *before* rolling for any); if rubber life rafts hit in *both* bomb bays were hit then this modifier may not be applied to any crewmen.
- -1 on Missions #1-15
- -1 if weather in Zone is “Bad” (see Table 4-2)
- -1 if in Zones 9-14
- -1 for any seriously wounded crewmember
- -2 if landed in water or bailed out while radio was out (see Table 7-2)

Notes:

- a) Roll for each crewman separately.
- b) If “rescued” in Zones 10 through 14, roll 1D for each rescued crewmen individually or for each group of crewmen who received the rubber raft modifier benefit above: “**1-3**” = crewman/crewmen successfully returned to Marianas, “**4-6**” = crewman/crewmen captured by Japanese, roll for each on Table 8-7

Table 8-7 PRISONER OF WAR (POW) SURVIVAL

Roll 1D:

| Die | Effect |
|------|---|
| ≤1-3 | Dies in captivity (i.e., from neglect, or killed by captors, or tried and executed for crimes against humanity) |
| 4-6 | Survives, liberated at end of war |

Modifier: -1 for any seriously wounded crewmember

Note: Roll for each crewman separately.

9.0. VICTORY CONDITIONS TABLES

Ω Table 9-1 URBAN AREA DAMAGE ASSESSMENT

Roll 1D:

| Die | Result |
|------|---|
| ≤1-2 | No boxes crossed off on Target Damage Sheet |
| 3-6 | Cross off one box on Target Damage Sheet for assigned target |
| 7 | <i>Cross off two boxes on Target Damage Sheet for assigned target</i> |

Modifiers (cumulative):

- -1 if “Off Target” result obtained on Table 6-6 or B-29 did not bomb target
- +1 if “On Target” result obtained on Table 6-6

Table 9-2 B-29 / CREW SURVIVAL RATING

| # of Missions Survived | Rating |
|------------------------|-------------|
| 1-7 | Poor |
| 8-14 | Fair |
| 15-21 | Good |
| 22-28 | Excellent |
| 29-35 | Outstanding |

Note: A B-29 may be destroyed, but surviving crew members can continue on another plane

Table 9-3 BOMB RUN RESULT RATING

| Bomb Run Percentage | Rating |
|---------------------|-----------|
| 0-5% | Poor |
| 6-14% | Fair |
| 15-29% | Good |
| 30%+ | Excellent |

Note: The Bomb Run performance ratings can be used to rate the bomb drop of a single mission, the average of several planes on the same mission, or the average of a single plane over a complete campaign.



B-29 crash-landing on Motoyama Airfield, Iwo Jima, after returning from a bombing run, 10 Mar 1945

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20th Air Force Units During World War II

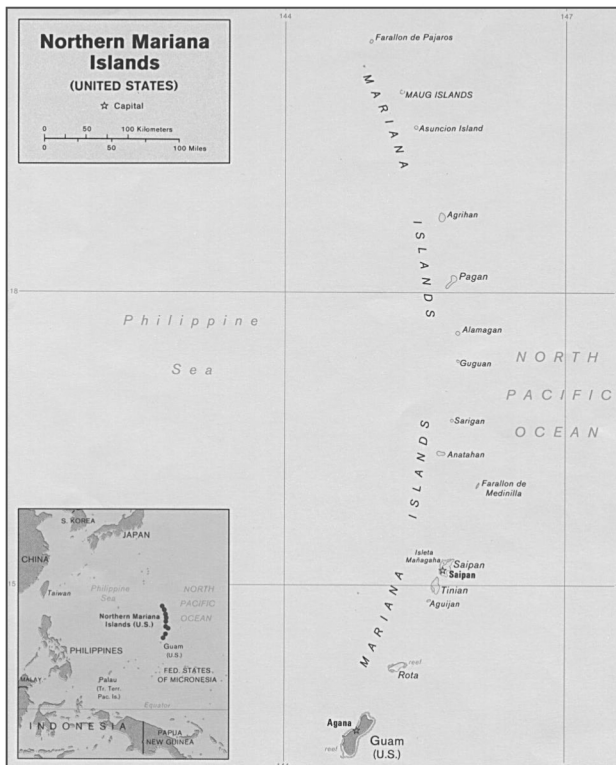
XX Bomber Command

Originated Kraragpur, India

- **1st Photo Squadron**
- **58th Bombardment Wing**
Chakulia, Kharagpur, Hijli AB, India & West Field, Tinian
 - 40th Bombardment Group (Triangle S)
 - 444th Bombardment Group (Triangle N)
 - 462d Bombardment Group (Triangle U)
 - 468th Bombardment Group (Triangle I)
- **73d Bombardment Wing**, Isley Field, Saipan
 - 497th Bombardment Group (A Square)
 - 498th Bombardment Group (T Square)
 - 499th Bombardment Group (V Square)
 - 500th Bombardment Group (Z Square)

XXI Bomber Command

- **3rd Photo Squadron**
- **313th Bombardment Wing**, North Field, Tinian
 - 6th Bombardment Group (Circle R)
 - 9th Bombardment Group (Circle X)
 - 504th Bombardment Group (Circle E)
 - 505th Bombardment Group (Circle W)
 - 509th Composite Group (Various Tail Markings)
- **314th Bombardment Wing**, North Field, Guam
 - 19th Bombardment Group (Square M)
 - 29th Bombardment Group (Square O)
 - 39th Bombardment Group (Square P)
 - 330th Bombardment Group (Square K)
- **315th Bombardment Wing**, Northwest Field, Guam
 - 16th Bombardment Group (Diamond B)
 - 331st Bombardment Group (Diamond L)
 - 501st Bombardment Group (Diamond Y)
 - 502d Bombardment Group (Diamond H)



Fighter Support from 7th AF

- **7th Fighter Command**
 - 15th Fighter Group
 - 21st Fighter Group
 - 318th Fighter Group
- **301st Fighter Wing**
 - 413th Fighter Group
 - 414th Fighter Group
 - 506th Fighter Group
 - 507th Fighter Group