

| Maneuver (B363+)                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Active Defense | Movement                                                                                                                                                                                                                                                                            | Description                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aim                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Any*           | Step   None                                                                                                                                                                                                                                                                         | Aim a ranged weapon to get its Acc bonus (+1 for bracing, +1 for 2 turns, +2 for 3+ turns, the combined bonus from all targeting systems cannot exceed the weapon's base Accuracy)   You get no step if your two-handed weapon is braced                                                                                                                       |
| All-Out Attack - Melee                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Determined                                                                                                                                                                                                                                                                                                                                                                                                                                                        | None           | 1/2 forward                                                                                                                                                                                                                                                                         | +4 to hit                                                                                                                                                                                                                                                                                                                                                      |
| Double                                                                                                                                                                                                                                                                                                                                                                                                                                                            | None           | 1/2 forward                                                                                                                                                                                                                                                                         | 2 attacks on same foe with ready weapon (-4 to off-hand without Ambidexterity)                                                                                                                                                                                                                                                                                 |
| Feint                                                                                                                                                                                                                                                                                                                                                                                                                                                             | None           | 1/2 forward                                                                                                                                                                                                                                                                         | Make one feint and one attack on the same foe                                                                                                                                                                                                                                                                                                                  |
| Long                                                                                                                                                                                                                                                                                                                                                                                                                                                              | None           | 1/2 forward                                                                                                                                                                                                                                                                         | Increase reach by 1 yard (Swing attacks at -2 dmg or -1 per die), may end in crouch (MA87)                                                                                                                                                                                                                                                                     |
| Strong                                                                                                                                                                                                                                                                                                                                                                                                                                                            | None           | 1/2 forward                                                                                                                                                                                                                                                                         | +2 to damage (or +1 per damage die)                                                                                                                                                                                                                                                                                                                            |
| All-Out Attack - Ranged (for optional ranged feints, see MA121)                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Determined                                                                                                                                                                                                                                                                                                                                                                                                                                                        | None           | 1/2 forward                                                                                                                                                                                                                                                                         | +1 to hit                                                                                                                                                                                                                                                                                                                                                      |
| Suppression Fire                                                                                                                                                                                                                                                                                                                                                                                                                                                  | None           | 1/2 forward                                                                                                                                                                                                                                                                         | RoF 5+ targets 2 yard zone - RoF 10+ suppress multiple, adjacent 2 yard zones with 5+ Shots/zone                                                                                                                                                                                                                                                               |
| All-Out Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Increased                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Any            | Step (1/2)                                                                                                                                                                                                                                                                          | +2 to one Active Defense until next turn (Increased Dodge allows up to Half Move)                                                                                                                                                                                                                                                                              |
| Double                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Any            | Step                                                                                                                                                                                                                                                                                | Two different Defenses against one attack                                                                                                                                                                                                                                                                                                                      |
| Attack                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Any            | Step                                                                                                                                                                                                                                                                                | Attack unarmed or with a ready weapon, you make take a step before or after you attack                                                                                                                                                                                                                                                                         |
| Change Posture                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Any            | None                                                                                                                                                                                                                                                                                | Standing, sitting, kneeling, crawling, prone, lying face up (see B364/MA98). Prone to Standing takes two turns (Exception Actobatic Stand)                                                                                                                                                                                                                     |
| Concentrate                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Any †          | Step                                                                                                                                                                                                                                                                                | Focus on mental task                                                                                                                                                                                                                                                                                                                                           |
| Committed Attack - Melee (MA100)                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Determined                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Special ‡      | Step                                                                                                                                                                                                                                                                                | +2 to hit, or take two steps at -2 to hit for a total modifier of 0, may move before or after an attack                                                                                                                                                                                                                                                        |
| Strong                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Special ‡      | Step                                                                                                                                                                                                                                                                                | +1 to damage (or +1 per two full damage dice), ST-based attacks only, may take 2 steps at -2 to skill, may move before or after an attack                                                                                                                                                                                                                      |
| Defensive Attack                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Any            | Step**                                                                                                                                                                                                                                                                              | Balanced weapon: +1 Parry/Block, Unbalanced weapon: +1 Parry/Block with different weapon or Parry with the same weapon, Kick: +2 to avoid Leg Grapple and DX rolls to avoid falling. -2 to damage (or -1 per die if worse), foe gets +1 to defend against a grab or grapple                                                                                    |
| Do Nothing                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Any            | None                                                                                                                                                                                                                                                                                | Take no action (Active Defenses at -4 if taking Do Nothing due to Stun; roll vs HT/IQ)                                                                                                                                                                                                                                                                         |
| Evaluate                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Any            | Step                                                                                                                                                                                                                                                                                | Study a foe prior to a melee attack (+1 per turn to subsequent attackss or feints, max. +3); may also use the Evaluate Bonus to cancel out penalties from Deceptive Attacks or feints                                                                                                                                                                          |
| Feint - Melee (May use the highest melee weapon or unarmed combat skill to resist a feint; for optional ranged feints, see MA121)                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Beat                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Any            | Step                                                                                                                                                                                                                                                                                | Contest of ST-based combat skill vs foe's ST- or DX-based skill (MA100)                                                                                                                                                                                                                                                                                        |
| Defensive Feint                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Any            | Step                                                                                                                                                                                                                                                                                | Apply the penalty from a successful Beat, Feint or Ruse to foe's attacks roll instead of defense                                                                                                                                                                                                                                                               |
| Feint                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Any            | Step                                                                                                                                                                                                                                                                                | Contest of combat skill (melee or ranged) vs. combat skill, cloak/shield or DX                                                                                                                                                                                                                                                                                 |
| Ruse                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Any            | Step                                                                                                                                                                                                                                                                                | Contest of IQ-based combat skill vs. foe's Per-based skill, DX-based skill or Tactics (MA101)                                                                                                                                                                                                                                                                  |
| Move and Attack                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Special §      | Full Move (-2 to avoid falling)                                                                                                                                                                                                                                                     | Move and attack at a penalty (Ranged: -2 or weapon's bulk; non-slam Melee: -4, max. skill 9). For thrusting attacks, may use slam damage (HP x velocity/100). Not compatible with Flurry of Blows, Mighty Blow, Giant Step, Combos, Rapid Strike or Deceptive Attack (except slams or cinematic techniques which require final effective skill of at least 10) |
| Move                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Any            | Full Move                                                                                                                                                                                                                                                                           | Do nothing but move (See Sprinting B354 and Acrobatic Movement MA105+)                                                                                                                                                                                                                                                                                         |
| Ready                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Any            | Step                                                                                                                                                                                                                                                                                | Ready or reload a weapon, adjust reach (B269), change grip, change hands (MA102)                                                                                                                                                                                                                                                                               |
| Wait                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Any            | Varies                                                                                                                                                                                                                                                                              | Hold your action, then take an Attack, All-Out Attack, Committed Attack, Defensive Attack, Feint, Ready or Stop Hit. Specify exactly what your action will be and what will trigger it.                                                                                                                                                                        |
| * Taking an active defense spoils your Aim; if you are injured, make a Will roll or lose your Aim. ** Before or after attack.                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| † Taking an active defense or being knocked down, injured, distracted etc. requires a Will-3 roll to maintain.                                                                                                                                                                                                                                                                                                                                                    |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| ‡ The attacker cannot parry with the hand(s) he used to attack, block if he attacked with his shield or cloak, or dodge if he kicked. He can use any other defense, but at -2. He cannot retreat.                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| § If you attacked using an arm, you cannot use that arm to parry (if the attack involved a fist, elbow, or weapon) or block (if you used a shield or cloak). If you used any other body part to attack, you cannot dodge. You can use any other defense, but you cannot retreat.                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Deceptive Attack (B369)                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Target suffers a -1 to active defense for every -2 taken to melee skill, or -1 to Dodge for every -2 taken to ranged skill (min. of 10).                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Pop-Up Attack (B390)                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Ranged attacks only, attacker suffers -2 to hit, no aim possible, may step. Not possible with bow or sling                                                                                                                                                                                                                                                                                                                                                        |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Rapid Strike (B370)                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Make two attacks, both at -6, to replace one normal attack. Can target separate foes.                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Riposte (MA124)                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Take a penalty to your Parry (min. of 8), not including modifiers. If Parry succeeds and you attack using the parrying weapon next turn, apply the same penalty to your foes Parry (hand or weapon), Block (shield) or Dodge (non-hand unarmed strike) or half that penalty to all other defenses.                                                                                                                                                                |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Stop Hit (MA108)                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Take a Wait Maneuver and declare that you intend to attack. Both roll to hit. Both fail, nothing happens. If one hits, the other defends at -1 or -3 if Parry with same weapon. If both hit, larger margin of success defends normally, other at penalty above. If tied, both have above penalty. Possible with Unbalanced/Unready Weapon.                                                                                                                        |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Spraying Fire (B409)                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| RoF 5+ weapon may attack multiple targets, must be within 30° angle, engaged in succession, +1 Rcl 2nd target +2 Rcl 3rd target and so on. RoF -16 loses 1 shot/yard, RoF 16+ loses 2 shot/yard. Attack roll for each target with effective RoF                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Telegraphic Attack (MA113)                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| +4 to hit, +2 to defend against. Not compatible with Deceptive Attack, Evaluate, Riposte or Feint. Does not affect critical chance.                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Tip Slash (MA113)                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Swing a thrusting, impaling weapon to do cutting damage equal to the weapons impaling damage -2                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Extra Effort                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| A critical failure on these rolls causes an additional 1 HP of injury to arm (block, parry, attack) or leg (dodge or kick), no DR (B357). May use no more than one offensive option (Flurry of Blows, Giant Step, Great Lunge, Heroic Charge, Mighty Blows)                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Flurry of Blows                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Spend 1 FP per attack to halve the penalty for Rapid Strike (B370, usually -6)                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Giant Step                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Spend 1 FP for one extra step (before or after your attack) during an Attack or Defensive Attack.                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Great Lunge                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Spend 1 FP to get the effects of All-Out Attack (Long) without losing defenses (incompatible with All-Out Attack, Defensive Attack, Defensive Grip).                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Heroic Charge                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Spend 1 FP during a Move and Attack to ignore the skill penalty and cap (except for Acrobatic Attack or Flying Attack).                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Mighty Blow                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Spend 1 FP per attack to get the All-Out Attack (Strong) damage bonus to an Attack without losing defenses.                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
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| Active Defense (B374+)                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Description                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                |
| Dodge                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Posture (B367, B551) Defense Melee Attack Ranged Target Movement                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                |
| and Drop / Dive                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Standing Normal Normal Normal Normal                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                |
| Sacrificial                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | Crouching Normal -2 -2 -2 2/3 (or +1/2 MP per hex)                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Kneeling -2 -2 -2 -2 1/3 (or +2 MP per hex)                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Crawling -3 -4 (Reach "C") -2* 1/3 (or +2 MP per hex)                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                |
| Acrobatic                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Sitting -2 -2 -2 -2 None                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                |
| Parry (Weapon)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Lying Down -3 -4 -2* 1 yard/second                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                |
| Large Thrown (Spear)                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | * If attacker is at the same or lower elevation and farther away than his own height, he attacks your torso as if it were half exposed (-2 to hit), and cannot attack your groin, legs, or feet at all. If you also have your head down, he cannot attack your neck, eyes, or face. |                                                                                                                                                                                                                                                                                                                                                                |
| Small Thrown (Knife)                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Consecutive                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Cross                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Supported                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Parry (Unarmed - above rules apply as well)                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| DX / Karate / Brawling                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Wrestling / Sumo                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Weapon Swing Attack                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Parry (Unarmed with legs - above rules apply as well)                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Karate / Brawling                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Block (You can not Block Bullets or Beam Weapons)                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Consecutive                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Close Combat                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Retreat (Together with another active defense, counts against one foe for one turn, can only retreat once per turn, must take a step backwards)                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Dodge                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Parry                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Block                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Extra Effort                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Feverish Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Rapid Recovery                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                |

| Cover DR Table (B559)                                              |          |
|--------------------------------------------------------------------|----------|
| Material                                                           | DR/2.5cm |
| Aluminum                                                           | 20-30    |
| Brick                                                              | 5-8*     |
| Concrete                                                           | 6-12*    |
| Glass                                                              | 5-20†    |
| Iron                                                               | 40-60    |
| Sandbags                                                           | 3        |
| Steel, mild                                                        | 50-60    |
| Steel, hard                                                        | 60-70    |
| Stone                                                              | 8-13*    |
| Wood                                                               | 0.5-1*‡  |
| * Repeated damage to small Area lowers DR / † Brittle / ‡ Cmbustl. |          |

| Rapid Fire |       |
|------------|-------|
| Shots      | Bonus |
| 5-8        | +1    |
| 9-12       | +2    |
| 13-16      | +3    |
| 17-24      | +4    |
| 25-49      | +5    |
| 50-99      | +6    |
| x2         | ++1   |

| Injury Tolerance Table (B390)                                                      |       |       |       |       |
|------------------------------------------------------------------------------------|-------|-------|-------|-------|
| Kind of entity                                                                     | pi-   | pi    | pi+   | imp   |
| Unliving                                                                           | x1/5  | x1/3  | x1/2  | x1    |
| Homogenous                                                                         | x1/10 | x1/5  | x1/3  | x1/2  |
| Diffuse*                                                                           | 0-1HP | 0-1HP | 0-1HP | 0-1HP |
| * Other attacks never >2 HP; Area-effect, Cone and Exp attacks cause normal injury |       |       |       |       |

| Hit Location Table<br>Humanoid B552 |                 |             |           |
|-------------------------------------|-----------------|-------------|-----------|
| Roll                                | Location        | Penalty     | Notes     |
| 3 - 4                               | Skull           | -7(f)/-5(b) | [1, 3]    |
| 5                                   | Face            | -5(f)/-7(b) | [1, 4]    |
| 6 - 7                               | Right Leg       | -2          | [5]       |
| 8                                   | Right Arm       | -2          | [5, 6]    |
| 9 - 10                              | Torso           | 0           |           |
| 11                                  | Abdomen         | -1          |           |
| 12                                  | Left Arm        | -2          | [5, 6]    |
| 13 - 14                             | Left Leg        | -2          | [5]       |
| 15                                  | Hand            | -4          | [6, 8, 9] |
| 16                                  | Foot            | -4          | [8, 9]    |
| 17 - 18                             | Neck            | -5          | [1, 10]   |
|                                     | Vitals          | -3          | [1, 11]   |
|                                     | Eye             | -9          | [1, 2]    |
|                                     | Ear             | -7          | [1, 12]   |
|                                     | Nose            | -7          | [1, 15]   |
|                                     | Jaw             | -6          | [1, 13]   |
|                                     | Spine           | -8          | [1, 16]   |
|                                     | Limb vascular   | -5          | [17]      |
|                                     | Neck vascular   | -8          | [17]      |
|                                     | Arm/Leg Joint   | -5          | [14]      |
|                                     | Hand/Foot Joint | -7          | [14]      |
|                                     | Groin           | -3          | [1, 7]    |



#### Weapon Statistics

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TL</b>     | The tech level at which the weapon first becomes widespread. You may only buy weapons of your campaign's TL or less, unless you have the High TL trait (B23).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Weapon</b> | The general class of weapon in question; e.g., "shortsword" or "assault rifle." Each entry represents a wide range of individual types. For guns, this entry includes a "type," "caliber," or "gauge," given in millimeters (e.g., 9mm) or fractions of an inch (e.g., .50), as customary for the weapon. The letters M (Magnum), P (Pistol), R (Revolver), and S (Short) appear after caliber in situations where different guns have the same caliber but fire different ammunition; for instance, 7.62mmS ammo. <p>For muscle-powered melee and missile weapons, such as swords and bows, damage is ST-based and expressed as a modifier to the wielder's basic thrusting (thr) or swinging (sw) damage, as given on the Damage Table (B16). For example, a spear does "thr+2," so if you have ST 11, which gives a basic thrusting damage of 1d-1, you inflict 1d+1 damage with a spear. Note that swung weapons act as a lever, and so do more damage.</p> <p>For firearms, grenades, and some powered melee weapons, damage is given as a fixed number of dice plus adds; e.g., a 9mm auto pistol lists "2d+2," which means that any user would roll 2d and add 2 to get damage.</p> <p><b>Armor Divisors:</b> A parenthetical number after damage – e.g., (2) – is an armor divisor. Divide the target's DR from armor or other sources by this number before subtracting it from your damage (or adding it to the target's HT roll to resist an affliction). For instance, an attack with a divisor of (2) would halve DR. A fractional divisor increases DR: (0.5) multiplies DR by 2; (0.2) multiplies it by 5; and (0.1) multiplies it by 10.</p> <p><b>Damage Type:</b> An abbreviation indicating the type of injury or effect the attack causes: aff = affliction, burn = burning, cor = corrosion, cr = crushing, cut = cutting, fat = fatigue, imp = impaling, pi- = small piercing, pi+ = large piercing, pi++ = huge piercing, spec. = special – see weapon notes, tox = toxic.</p> <p>A victim loses HP equal to the damage that penetrates his DR. Halve this for small piercing attacks; increase it by 50% for cutting and large piercing attacks; and double it for impaling and huge piercing attacks. Subtract fatigue damage from FP instead of HP. Afflictions cause no injury, but impose a particular affliction on a failed HT roll, as specified in the weapon's notes. See Damage and Injury (p. 377) for additional rules.</p> <p><b>Explosions:</b> An "ex" after crushing or burning damage indicates the attack produces an explosion. This may injure those nearby: divide damage by three times distance in yards from the center of the blast. Some explosions scatter fragments that inflict cutting damage on anyone nearby (see Fragmentation Damage, p. 414). Fragmentation damage appears in brackets; e.g., "3d [2d] or ex" means an explosion that inflicts 3d crushing damage and throws fragments that do 2d cutting damage. The "danger radius" for fragments is five yards times the dice of fragmentation damage; e.g., 10 yards for [2d]. If an explosive attack has an armor divisor, this only applies to the DR of a target that takes a direct hit – not to those caught in the blast radius or hit by fragments.</p> <p><b>Afflictions:</b> Some special weapons don't list dice of damage. Instead, they give a HT modifier; e.g., "HT-3." Anyone who is hit must attempt a HT roll at the listed penalty to avoid the effects of the affliction (e.g., unconsciousness). For example, a stun gun calls for a HT-3 roll to avoid being stunned for (20 - HT) seconds. Note that DR (modified by any armor divisor) normally adds to the victim's HT; for instance, a DR 2 leather jacket would give +2 to your HT roll to resist that stun gun.</p> <p><b>Other Effects:</b> A few weapons have additional linked or follow-up effects, noted on a second line. These occur simultaneously with the primary attack on a successful hit. For details, see Linked Effects (B381) and Follow-Up Damage (B381).</p> |
| <b>Damage</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Reach</b>  | Melee weapons only. This is the distance in yards at which a human-sized or smaller wielder can strike with the weapon. For example, reach "2" means the weapon can only strike a foe two yards away – not a closer or more distant one. "C" indicates you can use the weapon in close combat; see Close Combat (B391). <p>Some weapons have a continuum of reaches; e.g., a spear with reach "1-2" can strike targets either one or two yards away. An asterisk (*) next to reach means the weapon is awkward enough that it requires a Ready maneuver to change reach (e.g., between 1 and 2). Otherwise, you can strike at foes that are at any distance within the weapon's reach.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Parry</b>  | Melee weapons only. A number, such as "+2" or "-1," indicates the bonus or penalty to your Parry defense when using that weapon (see Parrying, B376). For most weapons, this is "0," meaning "no modifier." <p>"F" means the weapon is a fencing weapon (see B404).</p> <p>"U" means the weapon is unbalanced; you cannot use it to parry if you have already used it to attack this turn (or vice versa).</p> <p>"No" means the weapon cannot parry at all.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Acc</b>    | Ranged weapons only. Add Accuracy to your skill if you took an Aim maneuver on the turn prior to your attack. If the weapon has a built-in scope, the bonus for this appears as a separate modifier after the weapon's base Acc; e.g., "-7+2."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>RoF</b>    | The maximum number of shots an ordinary shooter can fire in a one-second turn. A weapon can normally fire fewer shots (to a minimum of 1), if you wish, but some special notes apply: <p>"I" means the weapon can only fire on "full auto," like many machine guns. Minimum RoF is 1/4 the listed RoF, rounded up.</p> <p>"m x n" (e.g., 3x9) means the weapon can fire a number of shots per attack equal to the first number (m), and that each shot releases smaller projectiles equal to the second number (n); see Shotgun and Multiple Projectiles (B409).</p> <p>"Jet" means the weapon shoots a continuous stream of fluid or energy, using the jet rules (B106).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Shots</b>  | The number of shots the weapon can fire before you must reload or recharge it. "T" means the weapon is thrown. To "reload," pick it up or ready a new weapon! <p>The parenthetical number following Shots indicates the number of one second Ready maneuvers needed to reload all of the weapon's shots (e.g., by changing magazines) – or, for a thrown weapon, the time needed to ready another weapon. An "I" next to this means you must load shots individually: the time listed is per shot rather than for all shots.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Weight</b> | The weight of the weapon, in pounds; "neg." means "negligible." For missile weapons with Shots 2+, this is loaded weight. The weight of one full reload appears after a slash.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>ST</b>     | The minimum Strength required to use the weapon properly. If you try to use a weapon that requires more ST than you have, you will be at -1 to weapon skill per point of ST you lack and lose one extra FP at the end of any fight that lasts long enough to fatigue you. <p>"F" means the weapon requires two hands. If you have at least 1.5 times the listed ST (round up), you can use a weapon like this in one hand, but it becomes unready after you attack with it. If you have at least twice the listed ST, you can wield it one-handed with no readiness penalty. But if it requires one hand to hold it and another to operate a moving part, like a bow or a pump shotgun, it always requires two hands, regardless of ST.</p> <p>"I" means the weapon requires two hands and becomes unready after you attack with it, unless you have at least 1.5 times the listed ST (round up). To use it in one hand without it becoming unready, you need at least three times the listed ST.</p> <p>"B" indicates a firearm with an attached bipod. When firing from a prone position using the bipod, treat the weapon as if it were braced and reduce its ST requirement to 2/3 of the listed value (round up); e.g., ST 13 becomes ST 9.</p> <p>"M" means the weapon is usually mounted in a vehicle or gun carriage, or on a tripod. Ignore the listed ST and Bulk when firing the weapon from its tripod or mount; the ST requirement only applies when firing the weapon without its mount. Removing the weapon from its mount (or reattaching it) takes at least three one-second Ready maneuvers.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Bulk</b>   | A measure of the weapon's size and handiness. Bulk modifies your weapon skill when you take a Move and Attack maneuver (see Move and Attack, B365). It also serves as a penalty to Holdout skill when you attempt to conceal the weapon.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Rcl</b>    | A measure of how easy the weapon is to control when firing rapidly: the higher the value, the less controllable the weapon. Rcl 1 means the weapon is recoilless or nearly so.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>LC</b>     | When firing at RoF 2+, every full multiple of Rcl by which you make your attack roll means you score one extra hit, to a maximum number of hits equal to total shots fired; see Rapid Fire (B373). (Firearms with RoF 1 still list Rcl, for use with certain rules.) <p>This is only noted for firearms and grenades. All melee weapons and muscle-powered ranged weapons intended for combat are LC4. An exception is the force sword, which is LC2. Ignore LC for weapons intended as tools, or for hunting or recreation, and for those that are completely improvised (like a wooden stake). See Legality Class (B267).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

- [1] An attack that misses by 1 hits the torso instead.
- [2] Only impaling, piercing, and tight-beam burning attacks can target the eye – and only from the front or sides. Injury over HP/10 blinds the eye. Otherwise, treat as skull, but without the extra DR!
- [3] The skull gets an extra DR 2. Wounding modifier is  $\times 4$ . Knockdown rolls are at -10. Critical hits use the Critical Head Blow Table (B556). Exception: These special effects do not apply to toxic damage.
- [4] Jaw, cheeks, nose, ears, etc. If the target has an open-faced helmet, ignore its DR. Knockdown rolls are at -5. Critical hits use the Critical Head Blow Table. Corrosion damage gets a  $\times 1.5$  wounding modifier, and if it inflicts a major wound, it also blinds one eye (both eyes on damage over full HP). Random attacks from behind hit the skull instead.
- [5] Limb. Reduce the wounding multiplier of large piercing, huge piercing, and impaling damage to  $\times 1$ . Any major wound (loss of over 1/2 HP from one blow) cripples the limb. Damage beyond that threshold is lost.
- [6] If holding a shield, double the penalty to hit: -4 for shield arm, -8 for shield hand.
- [7] Human males and the males of similar species suffer double shock from crushing damage, and get -5 to knockdown rolls. Otherwise, treat as a torso hit.
- [8] Extremity. Treat as a limb, except that damage over 1/3 HP in one blow inflicts a crippling major wound. Excess damage is still lost.
- [9] If rolling randomly, roll 1d: 1-3 is right, 4-6 is left.
- [10] Neck and throat. Increase the wounding multiplier of crushing and corrosion attacks to  $\times 1.5$ , and that of cutting damage to  $\times 2$ . At the GM's option, anyone killed by a cutting blow to the neck is decapitated!
- [11] Heart, lungs, kidneys, etc. Increase the wounding modifier for an impaling or any piercing attack to  $\times 3$ . Increase the wounding modifier for a tight-beam burning attack to  $\times 2$ . Other attacks cannot target the vitals.
- [12] Ear, if cutting max Dmg = HP/4, double HP/4 removes ear which gives -1 Appearance
- [13] Jaw, if crushing extra -1 to knockdown
- [14] Joints, limb crippled at HP/3, extremity at HP/4, HT roll to recover from crippling -2, miss by 1 hits the limb or extremity not the joint
- [15] Nose, only targetable from the front, treat like facehit, HP/4 breaks nose gives major wound and no Sense of Smell/Taste until healed. Cutting lops off nose if HP/4 $\times 2$  (major wound) but knockdown not at -5 for face. Cutting off nose = Appearance -2
- [16] Spine, only targetable from behind with cr cut imp pi tight-beam-burn, DR3, if shock-penalty roll against knockdown, crippled if dmg = HP which causes automatic knockdown and stunning
- [17] Veins and Arteries, only targetable cut imp piercing tight-beam-burn, increases wounding modifier plus 0.5, no crippling and no dmg limit, an attack that misses by 1 hits the neck, arm or leg, as appropriate

| Damage Types |                    |                        |
|--------------|--------------------|------------------------|
| Abbreviation | Description        | Effect                 |
| aff          | affliction         |                        |
| burn         | burning            |                        |
| cor          | corrosive          |                        |
| cr           | crushing           | 1x Dmg                 |
| cut          | cutting            | 1.5x Dmg               |
| fat          | fatigue            |                        |
| imp          | impaling           | 2x Dmg                 |
| pi-          | small piercing     | 0.5x Dmg               |
| pi           | piercing           | 1x Dmg                 |
| pi+          | large piercing     | 1.5x Dmg               |
| pi++         | huge piercing      | 2x Dmg                 |
| tox          | toxic              |                        |
| tbb          | tight-beam burning | Can target eyes/vitals |
| spec         | special            |                        |



#### Size and Speed/Range

| Speed Range | Size | Linear Measurement |
|-------------|------|--------------------|
| 0           | -15  | 7 mm               |
| 0           | -14  | 11.55 mm           |
| 0           | -13  | 17.5 mm            |
| 0           | -12  | 23.1 mm            |
| 0           | -11  | 35 mm              |
| 0           | -10  | 37.5 mm            |
| 0           | -9   | 5 cm               |
| 0           | -8   | 7.5 cm             |
| 0           | -7   | 12.5 cm            |
| 0           | -6   | 20 cm              |
| 0           | -5   | 30 cm              |
| 0           | -4   | 45 cm              |
| 0           | -3   | 60 cm              |
| 0           | -2   | 1 m                |
| 0           | -1   | 1.5 m              |
| 0           | 0    | 2 m                |
| -1          | 1    | 3 m                |
| -2          | 2    | 5 m                |
| -3          | 3    | 7 m                |
| -4          | 4    | 10 m               |
| -5          | 5    | 15 m               |
| -6          | 6    | 20 m               |
| -7          | 7    | 30 m               |
| -8          | 8    | 50 m               |
| -9          | 9    | 70 m               |
| -10         | 10   | 100 m              |
| -11         | 11   | 150 m              |
| -12         | 12   | 200 m              |
| -13         | 13   | 300 m              |
| -14         | 14   | 500 m              |
| -15         | 15   | 700 m              |
| -16         | 16   | 1000 m             |
| -17         | 17   | 1500 m             |
| -18         | 18   | 2000 m             |
| -19         | 19   | 3000 m             |
| -20         | 20   | 5000 m             |
| -21         | 21   | 7000 m             |
| -22         | 22   | 10 km              |

3.6 kmh ~ 1 m/s