
2300AD
STRIKER
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SEBCO
SAR

Travel

TYPICAL TRAVEL TIMES (per 100km hex)

Terrain Type	*Foot*[7]	*Horse*[1,7]	*Hover*	*Wheeled*	*Tracked*	*Aircraft*[10]	*LTA*[9]	*Ship*[9]	*Hydrofoil*[9]	*Boat*[9]
Flat	2d	1d	30m	1h	2h	10m	4h	–	10m	10m
Hilly	2d	1d	1h	2h	3h	–	–	–	–	–
Broken	3d	2d	3h	5h	6h	–	–	–	–	–
Mountain	5d	4d	no	no	no	–	–	–	–	–
Savannah	2d	1d	1h	5h	6h	–	–	–	–	–
Woods	2d	1d	8h	6h	8h	–	–	–	–	–
Forest	3d	2d	no	10h	12h	–	–	–	–	–
Swamp	2d	1d	3h	no	6h	–	–	–	–	–
Desert	2d	1d	30m	2h	2h	–	–	–	–	–
Volcano	+12h	+12h	+2h	+2h	+2h	–	–	–	–	–
Craters	4d	3d	1h	2h	4h	–	–	–	–	–
River[3]	+12h	+12h	1h[2]	+1d	+12h	–	–	–	80m[2]	10h[4]
Lake	no	no	30m	no	no	–	–	4h	1h	8h
Glacier	3d	2d	3h	no	8h	–	–	–	–	–
City, Town[5]	+12h	+12h	+12h	+12h	+12h	+6h	+6h	+6h	+6h	+6h
Cropland[6]	+12h	+12h	+12h	+12h	+12h	–	–	–	–	–
Road Grid	2d	-12h[8]	2h	2h	2h	–	–	–	–	–
Highway	2d	-12h[8]	12h	1h	2h	–	–	–	–	–
Calm Seas	–	–	–	–	–	–	–	4h	1h	8h
High Seas	–	–	–	–	–	–	–	5h	1h	–
Coastal Waters	–	–	–	–	–	–	–	6h	1h	8h

1. Horse or similar riding animal. 2. Time following river route. 3. Time to cross river (building rafts, etc.) 4. Time downstream, double time to go upstream. 5. Assumes passing through settlement, stopping for lunch, etc. 6. Assumes skirting crop fields. 7. Assumes 12 hours travel and 12 hours rest per day. 8. Decrease in usual time to traverse hex when using a highway. 9. Weather may increase time spent by up to one day. 10. Supersonic aircraft travel at twice this rate; hypersonic and scramjets at four times this rate. **Note:** Use the following special travel times per 100km hex: Railroad 1h, Airfilm 10m, Maglev 10m.

TRAVEL TIME - INTERFACE

Craft	*Preparation*	*Travel Time*	*Cleanup*	*Turn Around*
Going Into Orbit				
Rocket	1d	1h	2h	6h
Rocket Plane	6h	1h	1h	immediate
Scramjet	3h	2h	1h	immediate
Catapult	1h	2h	none	as lifting body
Beanstalk	NA	5d	NA	immediate
Returning to Surface				
Scramjet	none	1h	2h	3h
Parachute	1h	2h	4h	no
Deadfall	1h	1h	none	no
Rocket	none	1h	12h	1d
Lifting Body	1h	1h	2h	no
Beanstalk	NA	5d	NA	immediate

Preparation includes fueling, preflight checks, and boarding.

Travel Time includes actual flight time and maneuvering to position in orbit.

Cleanup includes postflight checks and equipment shutdown.

Turn Around is the minimum time required for a vessel to leave its destination and begin its return to its starting point.

MAXIMUM SPEEDS

Vehicle Type	*Max Speed kph*	*Max Speed per hex*
Foot, walking	5	40h
Horse	10	20h
Hovercraft	200	30m
Conventional Train	200	30m
Airfilm	600	10m
Maglev	600	10m
Wheeled Car	150	40m
Tracked	80	75m
Subsonic Air	900	6m
Supersonic Air	1800	3m
Scramjet	4000	90s
LTA	30	3h
Ship	30	3h
Hydrofoil	150	40m
Boat	15	6h

Note: Walking and riding specify double travel time, assuming half the time is spent in rest/meals/sleep. Others assume constant driving and shifts of drivers.

Airfilm is common on garden worlds; maglev is common on vacuum worlds.

INTERSTELLAR TRAVEL TIME

Depending on mass and drive, between 0.15 and 9.5 ly per day.

Warp Efficiency: equal to ly/day when G is less than 0.0001 (such as in deep space).

Speed Limit: 7.7 ly travel between stars; a stop in a gravity well is required for drive safety and performance. The stop requires 40 hours.

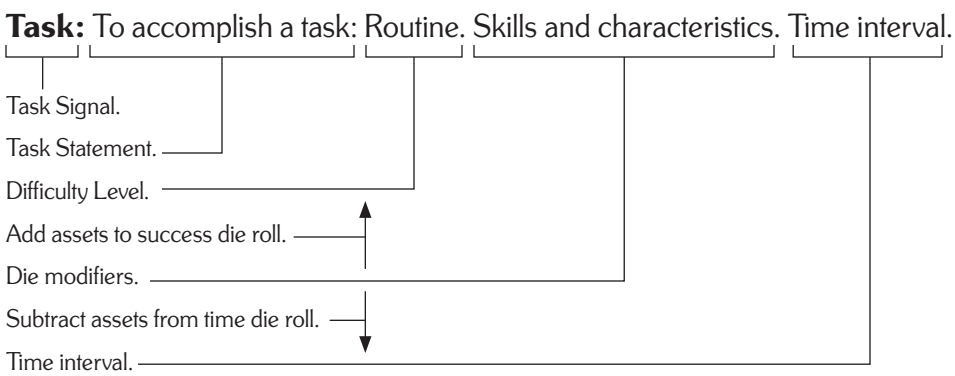
Tugships: Experimental tugships can haul a ship out to 3.85 ly, allowing the towed ship to travel a total of 11.55 ly in total.

INTERPLANETARY TRAVEL TIME

Within a gravity well (where G is greater than 0.0001) stutterwarp operates at about 0.01 percent efficiency. Multiply interstellar speed by 0.645 for speed in au/day.

Task Resolution

TASK FORMAT



TASK DIFFICULTY (1D10/2D6)

Difficulty	*Roll Needed*
Simple	2+/3+
Routine	6+/7+
Difficult	10+/11+
Formidable	14+/15+
Impossible	18+/19+

FAILURE (2D6 OR 3D6)

Throw	*Failure Type*
2-6	Retry
7-10	Check Determination
11-14	Mishap (2D6)
15+	Serious Mishap (3D6)

MISHAPS

Throw	*Consequences*
2-6	Superficial Damage
7-10	Minor Mishap
11-14	Major Mishap
15+	Total Mishap

CHARACTERISTICS

Crucial characteristics are *divided by 4* (fractions are dropped, producing a range from 0 to 5) and are a positive DM called an *asset modifier*.

COMPETITION TASKS

Task: To win a competitive activity: Routine. Appropriate attribute and/or skill modifiers minus opponent's appropriate attribute and/or skill modifiers. Time interval.

DETERMINATION

Characters must check determination in order to retry some tasks.

Task: To stay determined after failure of a task: Difficult. Determination. Instant.

Referee: If this task is successful, the character may retry immediately without penalty. If unsuccessful, the character may retry immediately at one increase in difficulty, or retry with no penalty after waiting 10 times the actual duration of the failed task.

DAMAGE AND REPAIR

Damage Level	*Operable?*	*Repair Task (Shop)*	*Repair Cost*
Superficial	Yes	Simple	1D10 × 1%
Minor	No	Routine	1D10 × 5%
Major	No	Difficult	1D10 × 10%
Destroyed	No	Formidable	1D10 × 20%

TASK TYPES

Standard: Any task which states the standard task components: statement, difficulty, assets, and time.

Hasty: Any task declared hasty by the player or referee; difficulty is increased by one level, and time required is reduced by double the asset modifiers.

Hazardous: Any task declared hazardous by the referee or the rules; hazardous tasks use 3D6 on the failure table.

Unskilled: Any task *not requiring* a specific skill for accomplishment. If a skill is stated and the character has it, it may be used, but there is no penalty for lack of the skill.

Uncertain: A task whose results are uncertain to the characters.

TIME

Time shown is *one-tenth* the average time required to complete the task.

Standard. The throw for time is 3D6, with asset modifiers subtracted; minimum result is 3.

Instant. If a task is labled "instant," it takes no time. Split second decisions and many reactions are instant.

Absolute. If a task is labled "absolute," it takes the time specified. Many combat actions are absolute and use one action within the combat structure.

FUMBLE

A natural roll of 1 when resolving a task automatically produces a fumble and the task fails, regardless of the asset modifiers on the task. The referee may decide that such a fumble is a minor inconvenience or a major roadblock.

SPECIAL CASES

A task may have special instructions which further detail how the task is to be performed. A note to the referee below the task may state repeatability, consequences, substitute skills or attributes, or other information.

CHECKLIST

1. Referee defines task in general terms.
2. Referee determines crucial assets.
   A. Characteristics
   B. Skills.
3. Referee determines type of tasks.
   A. Standard.
   B. Uncertain.
   C. Unskilled.
   D. Hazardous.
4. Referee determines average time to complete task, and establishes time period.
5. Referee decides task difficulty level.
6. Referee records task description.
7. Player may declare a "hasty" attempt.

UNCERTAIN TASKS

When an uncertain task is attempted, both the referee and the player roll for success (the referee rolls secretly).

If the average of the rolls is equal to or greater than the difficulty level, the attempt succeeds.

Combat Resolution

FIRE COMBAT

Rate of Fire equals number of shots of aimed fire at targets with 30 degree arc per round or number of area fire bursts per round.

Area Fire is directed at a single area 10 meters in diameter, and it attacks separately each figure in the target area and each target on a line between the weapon and the target area. Figures in the line of fire beyond the target area are attacked by half the weapon's AFV if in the same range band as the target area. Figures beyond this range are not affected.

Area Fire Value (AFV) is doubled at close range and halved at long and extreme range. Shotguns and flechette grenades damage is not halved at long range but cannot employ area fire at extreme range. Flechette grenades do not double AFV at close range.

To hit with area fire, multiply the AFV of the weapon by the number of bursts fired. Roll 1D10 for each target; if equal or less to this number the target is hit. If the roll is half the number, the target is hit twice, a third the number equals three hits, etc. The maximum number of hits equals the number of bursts times the weapon's rounds per burst (RPB).

Ducking may be performed by any targets in the area, gaining the effects of any available cover, but forfeits remaining actions for the turn. NPCs will duck if a throw on 1D10 added to the AFV the weapon is greater than the NPC's Coolness.

Moving Area Fire is either walking area fire or trotting area fire. Weapons with ROF 1 may not be used, and moving area fire cannot be performed at extreme range. Walking area fire is conducted normally. Trotting area fire treats each range band as one farther than it is.

Damage is equal to the DPV of the weapon, doubled at close range and halved at extreme range. Shotguns halve their DPV at long range.

Thrown Weapons may be thrown to a distance equal to the character's Throw Range divided by object weight. DPV is STR÷20 and causes blunt trauma damage.

MELEE DAMAGE

Melee Attacks have a DPV equal to (Strength + Melee) ÷ 30 of stun damage unless Melee-4 or higher, then stun or blunt trauma (character's choice).

Diving Blows equal 1 stun hit (DPV=0.5) and ignore armor; damage is done to the lesser of attacker's 2×SIZE+1D6 or defender's STR+SIZE.

Grapples inflict one hit of stun damage with DPV equal to melee attack. Stun points taken are control points; when control points equals STR, the target ceases struggling and may not move.

EXPLOSIVES

Concussion: All explosions have a concussion value equal to twice its EP value which affects every character within five meters.For each additonal five meters from the explosion, halve the concussion value. A character is hit by concussion if the concussion value or less is thrown on 1D10. If hit, the explosion produces blunt trauma damage with a DP value equal to the range's concussion value.

Fragmentation: All explosions that produce fragments have a burst radius. An explosion with an EP of 1 has a burst radius of five meters. Doubling EP adds five meters to the burst radius (EP 2 = 10 meters, EP 4 = 15 meters, etc.). Characters within the burst radius have a 20% chance of being hit by 1D6 fragments with a DPV of 0.4. Characters within twice the burst radius have a 20% chance of being hit by 1D6 fragments with a DPV of 0.2.

Tamped Explosions: A tamped charge has half the normal concussion value, always produces fragmentation at the explosion's normal burst radius, and does four times normal contact damage (DPV = 4 × EP).

Breaching Barriers: The maximum penetration of the material in cm equals contact DPV divided by the Armor Value of the material. The diameter of the breach equals the maximum penetration minus the barrier thickness.

HEALING

Task: To resuscitate a dead person: Difficult. Medical and Automed. 30 seconds. *Referee:* Requires surgical hospital and surgeon, or Automed and operator.

Task: To stabilize a serious wound: Routine. Medical and Automed. 9 seconds. *Referee:* See above note.

Task: To heal one light wound and/or one shock point: Routine. Medical and Automed. One day. *Referee:* Requires at least one hour of attention per light wound or shock point per day. Patient requires bedrest and proper meals.

Note: If any of the above tasks are attempted with only a Medkit, the task difficulty is increased one level, and the time roll is doubled.

CRITICAL POINTS

30 minutes after wounding
1 hour after wounding
3 hours after wounding
6 hours after wounding
12 hours after wounding

If a character is moved, by hand or vehicle, apply a DM of -1 on the throw at the next crisis point.

Natural Healing: A character naturally recovers one light wound and one shock point per week.

Resuscitation: Head wound kills cannot be reversed. Torso wound kills or death through shock points must be resuscitated within 60 minutes of death or irreversible brain damage makes it impossible.

Regaining Consciousness: If a character became unconscious, throw 1D10 every hour. If the result is less than the number of hours unconscious, the character regains consciousness.

Shock Damage: If shock damage has been taken and not yet stabilized, at each critical point throw 1D10. If the result is less than or equal to the number of shock points taken so far, the character receives one additional shock point. Otherwise no further effects are suffered at that point. If the character has not died from shock points within 12 hours, he has stabilized naturally.

ARMOR EFFECTS

The differences among non-rigid, rigid, and inertial armor are only important when resolving blunt trauma injuries. In the case of normal damage, the armor's value is subtracted from the Damage Point Value (DPV) of the weapon, and the remainder is used to determine the effects of the wound.

Non-penetrating kinetic energy rounds: A kinetic energy round with a DPV less than that of the armor will not penetrate but will cause blunt trauma or stun damage. If the round hits rigid or inertial armor, it inflicts stun damage; if it hits non-rigid armor, it inflicts blunt trauma damage. In all cases, half of the armor value is subtracted from the round's DPV, and the seriousness of the wound is reduced one level.

ARMOR VALUES

Cover	*Armor Value*
Wood	0.025
Loose dirt	0.03
Packed dirt, stone	0.15
Brick, cement	0.25
Reinforced concrete	0.5
Construction steel	0.8
Hardened steel	1.0
Aligned crystal steel	1.5
Construction composites	2.0
Composite matrix armor	3.0

Armor	*Armor Value*
Helmet	1.0
High-threat combat helmet	2.0
Steel helmet	0.2
Chainmail vest	0.1
Rigid breastplate	1.0
Non-rigid vest	0.6
Inertial armor vest	0.8
Full-body non-rigid armor	0.3
Full-body inertial armor	0.4
Full-body combat armor	1.0
BH-21 combat walker	8.0
Kz-7 combat walker	10.0

Combat Resolution

WOUNDING

Potential Wound	Damage Type	DPV = 1+	1d10 ≤ DPV × 10	1d10 ≥ DPV × 10
Kill	Normal	Kill	Kill	Shock, KD
	Blunt	Kill	Kill	Shock, KD
	Stun	4 Stun (or DPV × Stun, if more), KD		
Serious	Normal	DPV × Shock*, KD	Shock, KD	Light Wound, KD
	Blunt	DPV × Shock*, KD	Shock, KD	Light Wound, KD
	Stun	DPV × Stun, KD	Stun, KD	Stun
		* *Note:* Every odd (1, 3, 5...) Shock is a Stun instead		
Light Wound	Normal	Light Wound, KD	Light Wound, KD	No Effect
	Blunt	KD	KD	No Effect
	Stun	Stun	Stun	No Effect

Normal damage is significant surface and internal tissue damage (as in burns or gunshot wounds). *Blunt trauma* is impact damage or crushing (as in blows from a club, concussion, or perhaps crushing from a tire rollover). *Stun* is damage to the central nervous system (as in electric shock or incapacitating gas).

Wound Effects

Kill: The character is dead. Head hit kills are absolute; other hit kills may be eligible for resuscitation.

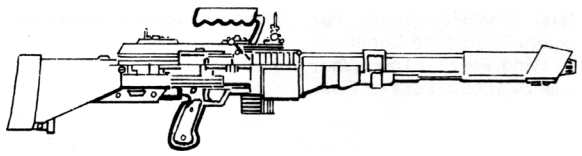
Shock Point: The character is dazed. Initiative is reduced by -3, but never below 1 until the character is unconscious. NPCs are made unconscious after receiving one shock point. A character is unconscious when his total of shock and stun points equals his consciousness level. A character is dead when his shock points equal his life level.

Stun Point: The character is dazed. Initiative is reduced by -3, but never below 1 until the character is unconscious. NPCs become unconscious after receiving three stun points. A character is unconscious when his total of shock and stun points equals his consciousness level.

Light Wound: The character is immobilized for the rest of the combat turn. Initiative level is reduced by 1.

Knocked Down: The character is knocked down by the attack and is dazed.

Dazed: The character cannot move or act, and is assumed prone, motionless, and under any available cover. Dazed remains in effect for a number of turns equal to the total of shock and stun points the character has received (and this effect is cumulative). If no shock or stun points, dazed applies only until the end of the combat turn. All eligibility for further actions is lost, regardless of initiative level. Any passed or option actions are lost.



NON-PLAYER CHARACTERS

Experience	Coolness	Incapacitation	Primary Skills	Related Skills
Green	4 (2)	1	0	—
Experienced	6 (3)	2	1	0
Veteran	8 (4)	3	2	1
Elite	10 (5)	4	3	2

Coolness: Coolness is the NPC's initiative level and chance to duck in area fire. Number in parentheses is optional for academics/non-combatants.

Incapacitation: Incapacitation shows the number of light wounds required to incapacitate an NPC.

NPC Orientation	Physical Task Modifier	Mental Task Modifier
Physical	+3	+2
Mental	+2	+3

ALLOWED ACTIONS

Remain stationary.
Conduct aimed fire at one target.
Conduct area fire at one area.
Move.
Conduct walking area fire.
Conduct trotting area fire.
Reload a weapon.
Change weapons.
Duck.
Special action.

Responses do not count as actions:
Block a strike.
Avoid a diving blow.

MOVEMENT

Type	Meters per Turn
Crawling (uses all available cover)	5
Walking (uses available partial cover)	20
Trotting (no cover)	40
Running (no cover)	80

RANGES

Effective range is stated for each weapon.
Close range if half effective range. Fire combat weapons have DPV doubled.
Long range is 2 × effective range.
Extreme range is 4 × effective range.

INITIATIVE

Initiative level = Coolness Under Fire (modified by armor as listed, and -2 if encumbered) or 1, whichever is greater

Initiative is counted down from 10

Characters act at their initiative level and again at half their level (rounded down)

Actions at same initiative point are simultaneous action

Actions take place during movement

Simultaneous attacks take place in order of ascending weapon Bulk

Characters may pass actions at their initiative level for an opportunity action, but this is lost if not used before next initiative point is reached

Combat Resolution

COMBAT TASKS

Task: To hit a target with aimed fire at close range: Routine. Marksmanship. Absolute (1 action). *Referee:* Difficulty increases with each increase in range, but decreases one level if target is stationary in the open. Failure at this task does not require the character to roll on the Failure Type table, and a roll of 1 is not a fumble, but simply an automatic miss.

Task: To hit a target with indirect fire: Difficult. Lower of Forward Observer or Marksmanship. Absolute (1 action). *Referee:* In this case, appropriate weapon skill refers to the firer's skill.

Task: To hit a target using laser designation: Easy. Lower of Forward Observer or Marksmanship. Absolute (1 action).

Task: To strike: Routine. Melee and melee skill modifiers. Absolute (1 action). *Referee:* Using a short range weapon against opponent with long range weapon makes the attack difficult. Surprise attacks (unexpected attacks from behind) are automatically successful.

Task: To block a strike: Difficult. Melee and melee skill modifiers. Instant. *Referee:* A successful block blocks a would-be successful strike, and the strike misses.

Task: To avoid a diving blow: Routine. Dexterity. Instant.

Task: To grapple: Routine. Melee. Absolute (1 action).

Task: To escape: Routine. Melee. Absolute (1 action).

Task: To drive at double speed: Routine. Vehicle. Absolute (1 action).

Task: To drive evasively: Routine. Vehicle. Absolute (1 action).

Task: To avoid a crash: Difficult. Vehicle. Instant.

Task: To emplace an explosive charge (uncertain): Easy. Demolitions. 1 minute. *Referee:* If both rolls fail, the charge detonates immediately. If the average is failure, the charge fails to detonate when triggered.

ATTACKS

Fire attacks involve attempts to hit a target with a projectile.

Aimed fire involves aiming a single fire attack against a single target (much as a hunter or a sniper would).

Area fire involves projecting a large volume of fire into an area with one or more targets (machine guns and bombs produce area fire).

Melee attacks involve attempts to hit an enemy within touching range with armed or unarmed blows.

VEHICLE DAMAGE

(Roll 1D10 +1 for each 5 DPV)

1D10	*Result*
1	No Effect
2	No Effect
3	Crew
4	2 Crew
5	Armament
6	Mobility
7	Armament
8	Mobility
9	Catastrophic
10	Mobility
11	Catastrophic
12	Armament
13	Catastrophic
14	Mobility
15+	Catastrophic

Effects: Crew Hit = One crewmember receives 1 hit by DPV of weapon. 2 Crew = Two crewmembers hit. Armament = One weapon destroyed. Mobility = Vehicle stopped and one crew hit. Catastrophe = Vehicle destroyed and crew killed.

DEVIATION

If a weapon which fires an exploding round (from a thrown hand grenade to artillery) misses its target, it deviates. Throw 1D10 for the distance of the deviation.

Multiply the deviation distance by distance for the type of weapon used to determine the actual deviation distance.

Use the scatter diagram to determine the diection of deviation. Using direction and distance, determine the location where the rounds impact after deviation.

Weapon Type	*Deviation Multiplier*
Direct Fire	1m
Indirect Fire Grenades	5m
Indirect Fire Mortars	10m
Indirect Fire Missiles	10m
Indirect Fire Rockets	20m

Scatter Diagram

7	8,9	4
6	*	3
5	0,1	2

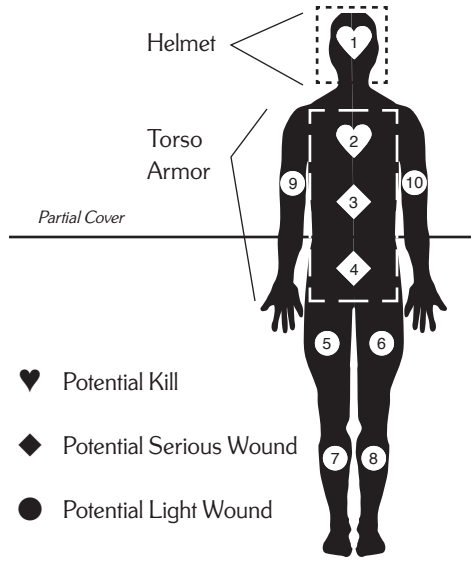
If an indirect fire weapon is shooting at more than half its indirect fire range, double the multiplier.

MISSILE PROCEDURE

Roll 1D10 under (homing value of missile – evasive value of target) to hit; a 10 is always a miss. Damage is always as a tamped explosion.

TARGET HITS

Throw 1D10 for potential wound and hit location.



OPTIONAL WOUND RULES

Roll once on the target hits diagram for location, then roll a second time for wound severity, applying the following modifiers:

Head (1):	-4
Chest (2):	-2
Abdomen (3-4):	-1
Upper Leg (5-6):	+0
Lower Leg (7-8):	+1
Arm (9-10):	+0

2300AD

Director's Screen

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A Mad Irishman Production

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