17. DAMAGE EVALUATION

Briefing

When a tank, armored car, battledrone, fighter bomber or other vehicle takes damage the damage evaluation procedure is used to determine the extent of the damage. The same procedure is used for strongpoints. A slightly modified version of the process is used for wardrones and for weapon turrets. Damage control systems, cannibalization and repairbots provide a limited ability to repair damage.

General guidelines for damage evaluation

1. The Damage Evaluation table is used to randomly determine the damage taken by a vehicle or strongpoint. If a damage result is inapplicable to the vehicle or strongpoint, the player should roll again. For example, a pillbox-type strongpoint is not mobile, and could not have its movement reduced.

2. If a damage result affects a system that did not exist or is already completely reduced, any hits there should be applied to another location. The player should roll again to generate a different result. For example, if the result is "Damage control reduced one level," but the damage control system is knocked out, roll again to determine another result.

3. If a damage result is supposed to reduce a system by two levels but the system has only one level left, the additional hit is "overkill" and has no effect. For example, if the result is "Two weapon systems knocked out" but only one weapon system remains, the last weapon system is knocked out and no other damage occurs.

4. When a vehicle or strongpoint suffers explosive destruction any passengers, crew members or occupants are considered to have been subjected to a hit by high explosive (attack factor 6) and must check for penetration. If any personnel survive, the players should temporarily break the turn sequence to move the survivors out of the destroyed vehicle or strongpoint.

5. When a vehicle takes damage during a turn, place a damage marker by the vehicle to signify that it must check morale before it performs any other action when it gets the initiative. (Note: a "System overload" result does require the placement of a damage marker.)

Vehicle and strongpoint systems

1. The movement systems of vehicles are divided into several levels for purposes of damage evaluation.

Movement levels
Undamaged, full movement
Two-thirds movement
One-third movement
No movement

a. When a vehicle suffers damage to its movement systems the new movement rate is not further subdivided into new short, moderate and long movement distances. The original movement distances will continue to be used for purposes of movement and fire.

b. A vehicle reduced to two-thirds of its original movement rate will only be able to move at moderate or slow speed.

c. A vehicle reduced to one-third of its original movement rate will only be able to move at slow speed.

d. For example, if a hover tank with a movement speed of 36 inches is reduced to one-third movement by damage it can only move at slow speed (a maximum of 12 inches) for all purposes. If it moves, any weapon fire conducted by the tank or enemy fire weapon fire against it would be factored for slow speed.

2. The targeting systems of vehicles and strongpoints are divided into several levels for purposes of damage evaluation. Damage to the

targeting system affects the fire of all of the weapon systems on the vehicle or strongpoint.

Targeting ability levels
Undamaged, normal targeting ability
-1 on hit/miss determination
-3 on hit/miss determination
-6 on hit/miss determination

3. The damage control systems of vehicles and strongpoints are divided into several levels for purposes of damage evaluation. Not all vehicles and strongpoints are large enough or technologically sophisticated enough to have damage control systems. The players should specify in their data sheets which of their vehicles and strongpoints have damage control systems.

Damage control levels
Undamaged, full capability of 30%
Reduced to 20% capability
Reduced to 10% capability
Capability lost

4. A vehicle or strongpoint may have up to three weapon systems (primary, secondary and tertiary).

a. The weapon systems are separate and do not have levels. When a weapon system is lost the owning player should randomly determine which system is lost.

b. A weapon system may include more than one weapon. When a weapon system is lost all of the weapons included in it are lost.

Vehicle and strongpoint damage evaluation

1. Damage represents the destruction of equipment, electronics and weapons, and the killing and wounding of crew members in the vehicle or strongpoint that has been penetrated.

2. When a vehicle or strongpoint is penetrated the owning player should roll one ten-sided die to determine the effect.

Die roll	Effect
1	Damage control reduced one level.
2	Movement reduced one level.
3	Targeting ability reduced one level.
4	One weapon system knocked out.
5	**System overload.** The vehicle or strongpoint systems are shut down, and the piece cannot move or fire for the remainder of the turn.
6	Damage control reduced two levels.
7	Movement reduced two levels.
8	Targeting ability reduced two levels.
9	Two weapon systems knocked out.
10	**Catastrophic damage.** Roll two more times to determine the damage. If a 5 or 10 is rolled the vehicle or strongpoint suffers explosive destruction and is completely destroyed.

3. The table above is designed for the owning player to determine the damage to the vehicle or strongpoint. In this case, low die rolls equate to more desirable results than high die rolls.

Wardrone damage evaluation

1. Wardrones are not as massive or as well-armored as tanks, battledrones, destroyers and other armored vehicles, so they cannot take as much of a pounding before they are knocked out of action. However, they generally have more staying power than the average human or alien trooper does because of their mechanical components, integral armored exoskeletons and redundant systems. They are also more resilient than warbots and robots.

2. To capture these differences, the following damage evaluation procedure should be utilized

for wardrones. Any time a wardrone takes a penetrating hit roll a ten-sided die to determine the damage taken.

Die roll	Result
1	Damaged, but no systems degraded.
2 – 3	Damage causes a temporary system overload. The piece cannot move or fire for the remainder of the turn.
4 – 6	Chassis damage: movement reduced by one level.
7 – 9	Weapon system damage: add a –2 penalty in hit/miss determination
10	**Catastrophic damage.** Roll two more times to determine the damage. If a 5 or 10 is rolled, the vehicle suffers explosive destruction and is completely destroyed.

3. Each of the damage results above reduces the current morale level of the wardrone by one point. Explosive destruction eliminates the piece.

4. Wardrones do not have damage control systems.

Weapon turret damage evaluation

1. Weapon turrets are not as massive or as well-armored as strongpoints, and are not large enough to house a crew member or a wide range of auxiliary systems. Many of these turrets can be knocked out with one penetrating hit and their damage does not have to be tracked. However, those turrets with more staying power will have to have their damage tracked.

2. The following damage evaluation procedure should be utilized to track the damage of larger weapon turrets. Any time a weapon turret takes a penetrating hit roll a ten-sided die to determine the damage taken.

Die roll	Result
1	Damaged, but no systems degraded.
2 – 3	Damage causes a temporary system overload. The piece cannot traverse or fire for the remainder of the turn.
4 – 6	Structural damage: turret traverse is reduced by 45 degrees.
7 – 9	Weapon system damage: add a –2 penalty in hit/miss determination
10	**Catastrophic damage.** Roll two more times to determine the damage. If a 5 or 10 is rolled the turret suffers explosive destruction and is completely destroyed.

3. Each of the damage results above reduces the current morale level of the weapon turret by one point. Explosive destruction eliminates the piece.

4. Weapon turrets do not have damage control systems.

Damage control

1. Each vehicle and strongpoint with an active damage control system gets once chance per turn to repair any damage received up to that point. The owning player may choose to repair any one damaged system on a vehicle or strongpoint per turn.

2. The basic chance to repair a damaged system is 30%. This is a roll of 1 to 3 on a ten-sided die. The damage control capability can be reduced or lost if the damage control system itself is damaged.

3. All damage is repaired sequentially, one level at a time. For example, if movement has been reduced to one-third it must be repaired to the two-thirds level before it can be restored to the full movement level.

4. Weapon systems are separate from each other and are not repaired sequentially. A weapon

system is either fully functioning or not functioning at all.

5. Damage control takes place at the beginning of the turn, before morale is checked or initiative is determined. Any successful repairs may be taken advantage of that same turn. Morale is checked after repairs to give the vehicle or strongpoint the advantage of any successful repairs.

Reporting damage and repairs

1. Players will find that **LaserGrenadiers** is much more tense and challenging if they do not report damage and repairs to each other. Each player keeps track of all the damage his vehicles have taken and the repairs they have made, but does not inform the opposing player of the results.

2. Of course, some results will be immediate. When infantrymen are removed from the board, or a player marks his assault lander with black cotton to represent the smoke of explosive destruction, the results are obvious.

3. Many results will not be obvious and will add suspense and tension to the game. Did the enemy tank sit in place all turn because it lost its movement ability, or because it was waiting for an opposing piece to break cover? Why did the enemy battledrone fail to use its rotary cannon?

4. Played in this way, **LaserGrenadiers** takes on an added dimension. A player can only hope he is scoring heavily with his penetrating hits. He will not know for sure until the enemy vehicle blows up or begins to retreat.

5. Playing the game in this way requires the players to be honest when making damage evaluations and to trust each other. The heightened drama of the game is well worth it.

Ground vehicle crashes

1. When a grav, hover or thruster vehicle suffers a system shutdown or loses all of its movement ability while it is off the ground, it will crash. A vehicle that crashes may suffer additional damage.

2. The chance of suffering crash damage increases for each inch that the vehicle was off the ground, with a maximum chance of 100%.

3. To determine if crash damage occurred, the owning player rolls a ten-sided die. If the number rolled falls into the range indicated in the table below, the vehicle has suffered crash damage.

Inches above the ground	Die roll for crash damage
1	10
2	9 to 10
3	8 to 10
4	7 to 10
5	6 to 10
6	5 to 10
7	4 to 10
8	3 to 10
9	2 to 10
10	Automatic

4. The effect of a crash is determined using the normal damage evaluation procedure. A crash is considered to have an effect equivalent to a penetration, and a ten-sided die is rolled to determine the effect.

5. If a vehicle is over water when it suffers a system shutdown or loses all of its movement ability, it may suffer damage and be in danger of sinking.

a. As a convenient rule, the players can assume that the vehicle will not suffer damage if the water is three or more times deeper than the height of the vehicle above the water.

b. A vehicle that lacks amphibious capabilities or the ability to float will sink to the bottom of a body of water.

c. The players should set the depths of any bodies of water on the battlefield before the game begins. As a convenient rule, the players can assume that the deepest point of a body of water will be one-half of its narrowest width. A variation on this formula can be used if the players choose to represent deeper or shallower bodies of water.

Aircraft crashes

1. Fixed-wing aircraft that are flying when they lose all of their movement levels will crash and be destroyed.

2. Helicopters that are flying more than 10 inches above the ground when they lose all of their movement levels may autorotate down to the ground safely, but suffer a system overload for the remainder of the game.

3. Helicopters, hoverprops and hoverjets that are hovering 10 inches or less above the ground when they lose all of their movement levels should be treated as hover vehicles using the rules for ground vehicle crashes above.

Repairbots (Optional rule)

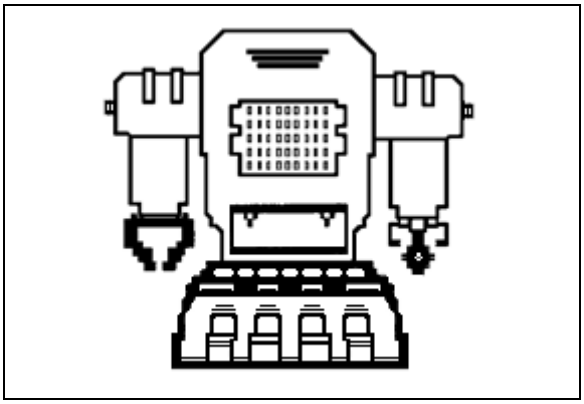
1. Robot repair vehicles, better known as repairbots, have the ability to make limited repairs to damaged vehicles on the battlefield. Their main handicap is their limited ability to carry the wide range of parts and components needed to troubleshoot and repair all types of vehicles. Nevertheless, they are fielded by armies whose leaders believe that even a modest gain in repair ability can be significant in battle.

2. The basic chance for a repairbot to repair a damaged system is 20%, or a die roll of 1 to 2 on a ten-sided die.

3. A repair ability of a repairbot can be added to the current damage control ability of a damaged vehicle. For example, if a repairbot is aiding a vehicle that has only a 20% damage control ability, damage control is raised to 40%.

4. The repairbot must be adjacent to the vehicle when damage control is performed.

5. A repairbot cannot aid a damaged vehicle in performing cannibalization. Refer to the optional cannibalization rules below.



6. A repairbot can use its repair ability to take one damage point off of a damaged wardrone or warbot. The repairbot can remove one point per turn.

External damage to armored vehicles (Optional rule)

1. External weapon mounts such as rockets and missiles mounted on rails and racks may be vulnerable to enemy warheads with effect areas. The missiles and rockets usually have lower armor classes than the vehicles on which they are mounted, so it may be possible to "scrub" them off.

2. The armor classes of missiles and rockets will probably be no greater than light alloy.

3. If the attacking weapon has an effect area, check for the penetration of any missiles or rockets even if the weapon does not penetrate the vehicle. Do not check for penetration if the attacking weapon does not have an effect area. Assume that it hit the vehicle and not the missiles or rockets.

4. When missiles and rockets are enclosed in tubes or pods, their launchers may be less well armored than their vehicles. If the players agree to do so, they may assume that externally mounted tubes are one armor class lower than the vehicle's armor class.

Cannibalization (Optional rule)

1. Vehicles and strongpoints are built to withstand a large amount of damage. One aspect of this engineering is the provision of redundant control systems and backup circuits. In addition, many electronic components are designed to be interchangeable.

2. The crews of vehicles and strongpoints with damage control systems have a limited ability to take components from one system to repair another. This is known as **cannibalization**.

3. There is a trade-off in cannibalization. One system is being degraded in order to restore a portion of another. To repair a system one level, another system must be reduced one level.

For example, the crew of a hover tank might take components from their drive system to regain the use of a damaged weapon system, gaining firepower at the expense of mobility.

4. A vehicle or strongpoint crew will not usually resort to cannibalization until it has no damage control ability left.

5. The base chance for successfully performing cannibalization is 10%, or a die roll of 1 on a ten-sided die.

6. A cannibalization attempt is in place of the normal damage control check.

7. If the cannibalization attempt was successful the system is repaired one level, and the system that was to be reduced is reduced one level.

8. If the cannibalization attempt was not successful the system is not repaired. The system that was to be reduced is not reduced, so no additional capabilities are lost.

9. Players should take care to record successful cannibalizations on the status sheets of their vehicles and strongpoints.

Damage evaluation for small vehicles and crew-served weapons (Optional rule)

1. This option is provided for dealing with pieces where a crew miniature is actually part of the model and cannot be removed. For example:

a. motorcycle or jetcycle with rider

b. gunner operating a weapon he cannot carry, such as a heavy automatic weapon on a tripod or a wheeled carriage

c. small scout flitter with rider and passenger

2. The armor class of the piece can be determined in one of several ways.

a. The crewman and weapon or vehicle can each be assigned the most appropriate armor class. When the piece is hit the players can determine randomly whether that man or the machinery was hit. In cases where the attacking opponent can only see the crewman or the weapon/vehicle, the armor class of that part of the model should be used to determine penetration

b. The crewman and weapon or vehicle can be given the same armor class, if possible. For example, a crewman in powered armor and a jetcycle with medium alloy armor both have armor class 6.

c. The armor classes can be averaged and rounded to the nearest whole number. For example, a crewman in a cloth uniform (armor class 1) and a light alloy motorcycle (armor class 5) would add up to 6 and average to 3.

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3. The model may be assigned two or three endurance points, as appropriate. For example, a weapon with gunner would typically be assigned two endurance points; a flitter with two crewmen would be assigned three endurance points.

4. To indicate the wounding of the crewman or damage to the weapon or vehicle, a ten-sided die can be rolled when the piece is hit and penetrated and refer to the following table.

Die roll	Result
1 – 2	Damaged, but no systems degraded
3 – 4	Damage causes a temporary system overload. The vehicle or weapon cannot move or fire for the remainder of the turn.
5 – 7	Mobility damage: movement reduced by one-third
8 – 10	Weapon system damage: add a –2 penalty in hit/miss determination

5. Each of the above damage results reduces the current morale level of the piece by one point.

6. This optional rule prevents situations where a crewman is killed and the whole piece has to be eliminated immediately. Refer also to the optional rules on weapon crews in Rule 12. Weapon Characteristics.