

## Squad Size and Function

Squads are the basic unit of infantry used by military forces. They require trust and confidence between every member of the unit and must train together to develop those bonds. There does not seem to be a perfect size or organization for all squads at all tech levels. There are always tradeoffs which make one organization better than another at a particular task. The two main tradeoffs are between resilience and span of control. Larger squads are more resilient in that they can take more casualties and continue to function. Unfortunately, as squads become larger they exceed the ability of a sergeant to lead that many troops, known as their span of control. Smaller squads are also easier to move as a single group, allowing transport vehicles to be smaller. Below are some common infantry squad sizes which do NOT include vehicle crews as part of the squad.

Squads are sometimes broken up into two, three, or even four teams to improve their flexibility. Each team is led by a corporal, with a junior sergeant commanding the squad. When well led, teams extend the span of control of the sergeant but can put distance between the leader and the common soldier. Team leaders also can take over the squad if the sergeant becomes a casualty.

### 5 or 6 person squad

- sergeant and team of 4 or 5
- only 1 main weapon is feasible
- no redundancy and unable to absorb casualties
- cannot both fire and maneuver

### 7 person squad

- sergeant and 1 team of 6 or 2 teams of 3
- smallest reasonable squad for two weapon teams
- any casualties result in severe degradation of combat power
- sometimes used in conjunction with small combat vehicles
- may fire and maneuver only at full strength

### 8 or 9 person squad

- sergeant and 1 team of 7 or 8
- sergeant and 2 teams of 3 or 4
- common size for 2 weapon teams with or without a vehicle
- may both fire and maneuver if split into 2 teams
- some resiliency when casualties are taken
- near maximum size for one soldier's span of control

### 10 or 11 person squad

- sergeant, assistant NCO, and 1 team of 8 or 9
- sergeant and 2 teams of 4 or 5
- sergeant and 3 teams of 3 or 4
- smallest possible squad for 3 teams
- largest squad for one NCO's effective span of control
- can both fire and maneuver with at least 2 teams

### 12 or 13 person squad

- sergeant, assistant NCO, 10 or 11 person team
- sergeant and 2 teams of 5 or 6

- sergeant and 3 teams of 3 or 4
- easily supports 2 or 3 weapons
- requires an assistant squad leader or multiple teams
- becoming large for one squad
- can both fire and maneuver when split into teams
- able to tolerate casualties well

14 to 17 person squad

- sergeant and 2 teams of 6 to 8
- sergeant and 3 teams of 4 to 6
- sergeant and 4 teams of 3 to 4
- nearly too large for 2 main weapons
- supports 3 or 4 main weapons
- slow to maneuver and command
- can both fire and maneuver
- requires middle rank NCOs for effective control
- transportation of squad becoming an issue
- can function even with multiple casualties

Infantry squads generally need transportation to the battle. If the vehicle is a critical feature of the unit's operation and takes a direct role in the fighting, the vehicle crew is often considered a part of the squad. Alternatively, all of the vehicles may be grouped into their own distinct squad or section in the platoon. If the soldiers operate mostly independently of the vehicle, the transportation squad or platoon is essentially interchangeable and not considered part of the squad. Thus the naval cutter used to bring a boarding party to a vessel is not part of a squad while an infantry fighting vehicle which provides fire support to an advancing team is considered part of the squad. Armored units which do not usually dismount their crew typically only deploy the vehicle and assume the crew stays with the vehicle at all times. Vehicles may be arranged in sections that train together, but individual crew members count only as part of the vehicle team.

Each squad typically has one or a few weapons which provide the majority of their firepower. Since World War I, that weapon is the machine gun. Grenades and smaller rockets are also important, but are mostly used against hardened targets and have limited ammo. Drones have recently become critical as well for both scouting and direct attacks. Other man portable weapons such as heavy machine guns, light mortars, flamethrowers and bigger rockets are common at the company and battalion levels. Some may also be found occasionally in a weapons squad at the platoon level or an attached team for a particular mission.

In the far future, armor becomes useful again to protect individual soldiers. As personal weapons become more deadly, unarmored soldiers become liabilities on the battlefield. Non-military or low tech weapons become nearly useless against a prepared armored enemy. Gauss weapons replace machine guns due to their higher damage and faster rate of fire. Man portable energy based artillery replaces explosives as the weapon of choice against hardened targets. Grav transport (both individual and vehicle) replace most other transportation methods. Robots and drones become the equal of trained soldiers. Defensive fortifications and emplacements are moved closer to the protected area due to the extreme mobility provided by grav transportation.

Despite these changes, most of the main functions of the infantry will remain the same; only the tools change. The infantry will still require individual soldiers or robots to occupy and hold ground.

Individual initiative and audacity will always distinguish excellent tactical leaders. Thus squads or their equivalent will remain the usual tool used to control and organize soldiers at the most basic level.

In terms of training, having a standard squad base unit provides a flexible infantry that may be transported and supported by any other additional assets. The exact size of the base unit is always constrained by the same two factors, specifically span of control and resiliency. The base squad, however, can operate the same way no matter the support.

A nine person squad using one sergeant and two fire teams of four is a common arrangement in many TL7 contemporary armies. Three squads of nine plus a lieutenant creates a base platoon of 28 soldiers. Support troops typically deploy with the base platoon, while vehicles may or may not stay with the soldiers. As a common base for many types of infantry, this core may be supported by many different assets as discussed below.

- 1) A weapons squad of 11 (2 teams of 5 + sergeant), medic flexible weapon support for different types of missions provides no transportation, so usually deploy together manageable platoon size of 40
- 2) Armadillo TC and TC/G  
2 crew + 7 passengers  
4 vehicles moves entire base platoon and usually stay together decent protection, fire support and mobility  
platoon size of 36 (28 dismounts + 8 crew)
- 3) AAV amphibious armored vehicle  
6 crew and 10 passengers  
medic, sniper  
3 vehicles move the platoon + supplements and stay with the troops provides mobility and protection on land and water  
good firepower and protection for combat actions  
48 soldiers (30 dismounts + 18 crew) gives a large but manageable platoon
- 4) armored personnel carrier  
4 crew and 8 passengers  
good protection and land mobility with some firepower  
medic, sniper, comm/signals team of 2  
4 vehicles move the platoon + supplements and often stays with the troops  
48 soldiers (32 dismounts + 16 crew) is a large but manageable platoon
- 5) light tactical vehicle  
2 crew and 6 passengers  
5 vehicles move a core platoon of 28 plus medic and sniper  
inexpensive vehicle for mobility, some protection and some fire support  
usually stays with the deployed troops  
40 soldiers (30 dismounts + 10 crew) is a manageable platoon
- 6) helicopter A  
1 crew and 7 passengers  
4 vehicles move entire core platoon but does not stay with the troops  
maximum mobility with minimum protection and no fire support  
platoon size of 32 (28 dismounts + 4 crew) is small and very mobile
- 7) helicopter B  
1 crew and 7 passengers

weapons squad of 11 (sergeant and 2 fire teams of 5)  
sniper, medic, comm/signals tech

6 vehicles move the supplemented platoon but do not stay with the troops  
maximum mobility, minimum protection and dismounted fire support  
platoon size of 48 (42 dismounts + 6 crew) is large but manageable

8) helicopter transport

2 crew and 9 passengers

medic, comm/signals tech and weapon team of 6

4 vehicles provide maximum mobility some firepower and basic protection  
vehicles move the supplemented platoon but do not stay with the troops  
platoon size of 44 (36 dismounts + 8 crew) is manageable

9) dornier 31 condor

3 crew and 17 passengers

core platoon plus 5 person weapon team + medic

2 vehicles provide supersonic vertical landing ability and fire support

usually do not stay with the troops

platoon size of 40 (34 dismounts + 6 crew) is manageable

All of these examples take a core platoon with supplements and create a platoon with novel capabilities. The basic infantry element of 3 nine soldier squads doesn't change but can use their various support systems to complete most missions. Military forces with a different basic squad size can use the same support vehicles but deploy with different supplementary personnel, different vehicle numbers, or vary the number of squads per platoon. Militaries can have different squad sizes for particular types of vehicles, but specialist squads may spend a lot of time waiting between appropriate missions. Keeping a core squad size across various infantry units allows a generalist platoon to use the same basic tactics whether supported by APCs or supersonic VTOL transports.

To show how a different squad structure might be accommodated, consider a squad with a sergeant and 3 fire teams of 5 for a base squad size of 16. The 3 fire teams allow a squad several options for fire and maneuver, or allow 2 teams to advance with one fire team in reserve. Two squads plus a lieutenant gives a core platoon size of 33, which may be supported as described below.

1) 12 person weapons team (sergeant and 2 teams of 5 + medic)

no mobility allows slow travel through difficult terrain

platoon size of 45 is manageable

requires other vehicles for mobility

2) Armadillo TC and TC/G

2 crew + 7 passengers

5 vehicles can move core platoon + medic and sniper

provides good mobility some protection and some firepower

platoon size of 45 (35 dismounts + 10 crew) is manageable

3) AAV amphibious armored vehicle

6 crew and 10 passengers

core platoon plus medic, comms/signals and 5 person weapon team

4 vehicles provide good protection, very good mobility+ fire support

platoon size of 64 (40 dismounts + 24 crew) is rather large

4) armored personnel carrier

4 crew and 8 passengers

core platoon plus medic, comms/signals and 5 person weapons team

- 5 vehicles provide good mobility, fire support and protection  
platoon size of 60 (40 dismounts + 20 crew) is rather large
- 5) light tactical vehicle  
2 crew + 6 passengers  
6 vehicles move core platoon + medic, sniper and comms/signals  
inexpensive transport with some mobility, fire support and protection  
platoon size of 48 (36 dismounts + 12 crew) is large but manageable
- 6) helicopter  
1 crew + 7 passengers  
core platoon plus medic and sniper  
5 vehicles give excellent mobility but no protection or fire support  
vehicles do not stay with the troops  
platoon size of 40 (35 dismounts + 5 crew) is manageable
- 7) helicopter transport  
2 crew + 9 passengers  
core platoon + medic, sniper, and comms/signals  
4 vehicles give excellent mobility, some protection and some fire support  
vehicles do not stay with the troops  
platoon size of 44 (36 dismounts + 8 crew) is manageable
- 8) dornier 31 condor  
3 crew + 17 passengers  
2 vehicles carry core platoon + medic  
outstanding mobility with supersonic speed + VTOL + some firepower  
usually does not stay with the troops  
platoon size of 40 (34 dismounts + 6 crew) is manageable

As shown, vehicles may accommodate a variety of squad and platoon sizes. A consistent squad size allows a general platoon to employ the most appropriate support troops to carry out a wide range of missions.