Standard Operation Procedures

“Structure breeds success.”

A detailed guide to the unit's operational standards, ensuring consistency and effectiveness in all engagements. Includes combat protocols, communication procedures, and tactical guidelines.

- Subject 1 (Team Leader)
- Formal Radio Telecommunications (RATEL)

Subject 1 (Team Leader)

Outline

This document is a comprehensive overview of the subject matter of Subject 1 training, covering the theory and practice of team leadership - both at a fire team level as well as section command. Starting with the theory of the team leader's role in a functional infantry detachment, proceeding to cover practical advanced radio configuration and basic formal RATEL, how to receive and give orders, practical tips to guide the team leader's decision-making process, explanation of some basic tactics (including vehicle usage, especially in a convoy), and finishing by establishing some basic Tactical Exercises Without Troops (TEWTs).

To ensure you can properly lead your fire team or section, you will need to ensure that you know and understand all of the following information presented within this course. Note however that under no circumstances will this course make you a good leader - it simply contains the knowledge required to fill the role. Effective application of these skills cannot be taught, it can only be developed through practice.

This document is not a replacement for participating in a Subject 1 training course, but can be considered supplemental material, as much of the value of Subject 1 training comes from interactive exercises and the ability of instructors to tailor the course to suit the candidates and answer any questions they might have.

Responsibilities and Expectations

Directing soldiers

A leader's job within a detachment is to provide direction, typically to a fire team of four soldiers or a section of two fire teams. A leader's ability to direct their soldiers effectively can be the deciding factor in whether or not their detachment can complete its objectives effectively. Leaders are ultimately responsible for all of the soldiers under their command - not only ensuring their safety as practically as possible, but also ensuring their effectiveness in a firefight or whatever tasking might be at hand.

Information flow

A leader is a critical piece of the organizational backbone of a detachment. They are responsible for information flow, both up and down the chain of command. Leaders must be able to gather information from the front line, or from their subordinates, and pass up information relevant to higher levels of command. Leaders must also gather information from their commander and their fellow leaders as applicable, ensuring that soldiers under their command are aware of everything that could help them carry out their tasking moment-to-moment.

Soft skills

In summary, leadership involves processing, filtering, and acting on a large variety of information coming from all directions, and effectively communicating that information to the people who need it. This role benefits most from strong tactical analysis skills, quick decision-making, confident dissemination of orders, and constant awareness of the unfolding situation.

Responsibility to community

Finally, those who step up to the task of leadership are seen as representatives and authorities within the unit. This creates a unique responsibility for in-game team leaders - a responsibility to the CJTF community. For the duration of their leadership, leaders are expected to uphold the values of CJTF, ensuring that all members are being treated fairly and with due respect, and that no members are being disruptive of other people's time and efforts.

Leaders must strive to be exemplars of the community and set an example by which we would hope all members of CJTF would cleave to. They must handle incidents gracefully, preventing issues from occurring wherever possible, and they will have the support of the unit Staff to resolve issues whenever they arise.

Radios and Communication

Team leaders are expected to listen and be able to transmit on two radio frequencies - their section's net, as well as the platoon net. It is *strongly recommended* that these frequencies are set to different ears. While section commanders will be communicating on both frequently, fire team leaders will only be transmitting on section net unless the section commander is incapacitated.

Configuring TFAR

Setting up a primary and alternate frequency is a fairly straightforward process. TFAR radios have a number switchable channels, with each channel able to be set to a single frequency. One channel is always selected, and transmitting on the selected channel is done with the `Caps Lock` key by default. A second channel can be set as a sticky "additional" channel, and transmitting on the

additional is done with the `T` key by default.

The following process outlines how to configure your section net on your left ear as primary on channel 1, and platoon net on your right ear as additional on channel 2.

1. Open your radio configuration with `Ctrl`+`P`

2. Press `Numpad 1` to set the radio to channel 1
3. Select the frequency on the display of the radio and enter your section freq (e.g. 41.1 for Alpha)
4. Click the `ENT` key on the radio button pad to set the channel frequency

5. Press `Numpad 2` to set the radio to channel 2
6. Select the frequency on the display of the radio and enter your platoon freq (e.g. 41 flat)
7. Click the `ENT` key on the radio button pad to set the channel frequency

8. Press `Esc` to close the radio configuration
9. Press `Ctrl`+`Right Arrow` to set channel 2 stereo mode to right ear
10. Press `Numpad 1` to set the radio to channel 1
11. Press `Ctrl`+`Left Arrow` to set channel 1 stereo mode to left ear

Your radio should now be configured with channel 1 selected and channel 2 additional.

Once configured, be sure to do radio checks on both nets (e.g. press `Caps Lock` and transmit "radio check, 41.1", wait for response e.g. "loud and clear", repeat for platoon net).

Semi-Formal RATEL

When transmitting on platoon net, it is critical that the basics of formal RATEL are observed. A detailed explanation of formal RATEL in CJTF can be found in the SOP document, Formal Radio Telecommunications (RATEL). When you broadcast on platoon net, you are transmitting to other leaders who are likely to be exceptionally busy, on a frequency that frequently bears incredibly important or time-sensitive information between elements.

Therefore, without exception, you must always do the following:

Start every transmission by declaring recipient, then sender

The first words out of your mouth when transmitting on platoon net should be the call sign of the element you're sending the message to. Immediately after you should declare your own call sign. Almost every single transmission should contain this information, regardless of whether you're in the middle of a conversation, so that other listeners can identify which callsigns are conversing at any point.

For example: "Sunray, this is Alpha, we're assaulting the red zone now."

This can sometimes be dropped for very quick or urgent responses in the middle of a conversation.

Start every conversation by waving the recipient

Your first transmission should declare the recipient, then sender, then nature of message, and then end.

"Sunray, this is Alpha, message for you, over."

You cannot guarantee that the recipient is available to converse over platoon net. This is especially true of platoon command, who will almost never *not* be in the middle of some conversation on one of their own radio channels, or in person. It is critically important that you wave the recipient first, allowing them time to finish what they're doing and respond, or advise you to wait if they are busy.

Including the nature of your message helps the recipient decide whether to make you wait while they finish up other tasks. For example: "Sunray, Alpha, urgent request for fire support!" will probably see Sunray drop what they're doing and ask you for details, wheras "Sunray, this is Alpha, ready to send SITREP," might see Sunray respond with "Alpha, Sunray, wait one, out," indicating they will hail you back later to take that SITREP.

If you wave your recipient and do not receive a reply, it is customary to wait for around ten seconds and wave them again. If you wave an element three times and hear no response, it is customary to advise the net by addressing the recipient, for example, "Sunray, this is Alpha, nothing heard, out". From there you might make your own decisions about what to do with that fact - if Sunray doesn't respond, for example, even to tell you to wait out, it might be time to take initiative and ensure Sunray hasn't been overrun and incapacitated.

Be concise, consistent, and use the correct channel

As stated above, platoon net frequently bears incredibly important or time-sensitive information between command and section elements. That means it is important that your transmissions are brief, but comprehensive. Waste as little time as possible when transmitting information. Airtime on platoon net can become exceedingly precious during periods of intense fighting, and delays can cause casualties. Think about what you need to convey before you key your radio.

Keep in mind, too, that it is incredibly easy to accidentally transmit on the wrong channel; not only is it not uncommon for new leaders to simply key the wrong channel, but fresh and veteran leaders alike run into issues when transmitting on one net before immediately transmitting on the other. Transmit channels can sometimes get "sticky", and you might find yourself accidentally issuing orders to your section over the platoon net (frequently met with a chorus of "Check net!").

With that in mind, and especially when switching transmit from one net to another, remember to wait a second or two before keying the radio again.

Conducting a Firefight

This is an extremely simple take on how to win a firefight, but of all the material in this course, you would likely be best served by taking away the following two important points to guide all of your decision making. As you conduct yourself throughout a mission, keep in mind this simple thought loop: "Am I using terrain effectively? Am I using fire and manoeuvre?" If the answer is "no" at any stage, start remedying that.

Critical Terrain

The effective use of terrain dictates the outcome of a vast majority of firefights. First, **identify the critical terrain**. This might be a ridgeline, or a hill height. It might be some defilade before a stretch of no-mans-land. It might even be a small compound in the middle of an open field. It might be a dense patch of forested area on the enemy's flank. Once you know what the critical terrain is, you can start making decisions on how to utilise it to best defeat the enemy.

Fire & Manoeuvre

This is the duopoly that dictates successful infantry engagements. **In every fight, you must strive to achieve both fire and manoeuvre**. *Fire without manoeuvre* is indecisive. *Manoeuvre without fire* is FATAL.

Dedicate part of your team to achieving fire superiority and the other part to aggressing the enemy. Hill-sitting several hundred meters away from the enemy and taking pot shots until they stop shooting back will not suffice in most cases. Commit to assaulting them at their position, wherever that is, and fix them there using your fire element until the job is done.

Leadership Theory

Preserve yourself

The most essential responsibility of any leader is survival. Becoming a casualty at a critical moment not only deprives your commander or fellow leaders of coordination with your element, but also deprives your soldiers of direction. This must be avoided at all costs, up to and including relying on your soldiers to carry out dangerous tasks for you.

Leading from the front is not the best idea. In the world of Arma, leading first means you die first. Don't fail your soldiers by recklessly putting yourself in harms way and causing them to lose your leadership. No matter what amount of damage you think you can do on your own, the difference between a disorganized team and a coordinated one is your most important contribution, not the

rounds you send down scope. Your own personal marksmanship is nothing compared to the powerful weapon you wield, that is your team. Wasting their potential by depriving them of your leadership because you were at the front of the charge is simply stupid.

Know your job

Having an absolute understanding of your job is essential. You cannot effectively lead your soldiers or participate in a cohesive fighting force without first knowing your element's role and what you are meant to achieve. Ensure you fully understand the commanders intent, and follow it as best you can to ensure the job gets done.

Knowing your fellow leaders' jobs, and how your tasking fits in with theirs, is also a critical piece of this puzzle. You can't afford not to understand exactly where the line of your responsibility ends and another element's starts. If that line shifts, you must remain aware of it. Proper coordination cannot take place without this awareness.

If you don't understand your job, or don't understand how it relates to other leaders' jobs, ensure you ask at the earliest opportunity and get yourself educated.

Know the battle space

Where knowing your job means being conscious of where you're going to be, knowing the battle space means being conscious of where you are right now. More than that, it means knowing where you are in relation to friendly units, reported enemy contact, and in relation to the availability of assets (such as ranges of mortar/artillery availability, etc).

Your soldiers will rely on you to provide them with battle space information that is relevant to their tasking. One obvious example: when having your team cover a sector, you should always strive to inform them, verbally, about any possible friendly presence crossing that sector, and seek a readback to confirm they understand. This helps prevent blue-on-blue.

Maintaining good battle space awareness as the mission and situation develop will also inform your basic decision-making when responding to immediate threats and tasking.

Give clear, concise orders

Giving orders that are brief, comprehensive, and easy to interpret is essential to effective leadership. The ease with which your soldiers understand your orders directly correlates to how quickly and effectively they can carry out those orders. Short and sweet is the best way to go. Thinking about what you're about to say before you start giving the orders is often very useful, as rambling can defeat effective coordination.

Remember that your soldiers have many things to focus on at the same time. Your job is to direct that focus, not give them more things to worry about, and when bullets are flying overhead it is difficult to remember long and complicated orders. Instead of saying, "you need to stand up and move over to that wall, then from there, you need to provide cover down that road", try something

like "blue team, move right and forward to the wall, cover the road".

Another kind of problematic order is one that requires your soldiers to dedicate significant attention to interpreting them. For example take the order, "you four, head up to hill height 218 and cover Bravo's push." This is a terrible order for a number of reasons:

- Which four, who are you talking to?
- Where is hill height 218? How far away is it, in which direction?
- Where is Bravo right now? When and where are they pushing?

All of these questions require a soldier to spend valuable time and attention figuring out the answer, and any single unanswered question will prevent the soldier from carrying out their tasking. Instead, change it to something like, "Blue team, orient northwest, move 200m up to the crest. Provide covering fire to the north when you see Bravo moving in from the west to assault the town."

- Soldiers know exactly who you're referring to; blue team.
- They can start moving almost immediately because they have a direction straight away.
- They know what to do when they get there. No need to check maps, only what they can see.

While the second version is a bit lengthier, it's effectively the same tasking, but results in much faster action!

Don't be hasty

Operations are not races between elements to get to the objective. Taking your time and making sure that your men know what to do and when to do it is essential to a successful mission. Undue haste or panic will cost you and possibly even the mission - slow it down, take your time.

Before sprinting across a road or setting up a road crossing, think about your surroundings. Look around you, are there buildings behind you that haven't been cleared? Are there windows with a direct line of sight on your team? Is there a ridgeline that the enemy might use as a base of fire against you? Which sectors should your soldiers be covering when you cross? Are other elements available to provide additional cover? Slow it down and think it through.

Exercise tactical patience

Tactical patience is defined as "giving a situation enough time to develop and unfold before trying to determine its meaning, significance and how to react to it".

While it is true that the sooner you give orders, the sooner your soldiers can act on those orders, sometimes it is important to wait and see how things are going before committing to a course of action. Having your flank come under attack by an enemy section does not indicate the bulk of the attack is coming from that direction, so shifting the majority of your defenses there could be a critical mistake.

Know your team, task by name

Get to know the people in your team or section. Learn their names and roles. When bullets start flying, and the virtual shit hits the virtual fan, knowing who your soldiers are and what they do best is important. When a tank is rolling up and you yell "someone get your AT ready!", you're virtually guaranteed to have half your team pull out disposable launchers when all you needed was one rocket. Instead, task by name - "Harry, prep your AT."

There's a few little fun facts of psychology at play here. Firstly, people spend their entire lives being conditioned to notice and respond to their own name being called. While in a video game you're likely not using their real name, a similar association exists with names people take for themselves, such as their username, especially if they have a long history with it or it is meaningful to them. Make use of that. Secondly, it is important to know and respect the bystander effect. With the above AT example, you might get more than you wanted, but you also might get none as everyone sees themselves as a bystander and expects someone else to take care of it. Tasking by name solves these issue entirely.

Actively allocate manpower

Your commander relies on you to manage your team. When the commander provides your element with tasking, your job is to focus on exactly where everyone should be and how they should be doing it. Down to a very immediate local level, you should be prepared and ready to put your soldiers exactly where you want them to efficiently achieve your goal.

That means calling out a buddy team and putting them on a wall while another buddy team flanks right. That means telling your medic to stay right next to you and telling your machine gunner to lie down there and cover that sector. That means when you're taking a compound, don't leave it up to your soldiers to just sort of figure it out. Put one buddy team on area security and tell one buddy team to start kicking in doors. Be active in allocating your manpower.

Avoid tunnel vision

In all forms, at all levels, tunnel vision can be extremely harmful to your chances of success. You might have a clear directive you're tasked to deal with, with clear boundaries, but that doesn't mean you can ignore the surroundings or the rest of the battle space.

Keep in mind that you're not the only one you have to guard against tunnel vision. Your soldiers will likely suffer from this, too, getting absorbed in firefights as their focus is drawn exclusively to the enemy and shooting. Your job is to keep their surroundings in mind as well!

Another form of tunnel vision involves "contact magnetism" - a phenomenon where, without clear direction, soldiers may abandon their sectors in order to orient to the direction of contact. You'll notice this when you see all 8 section members lined up against the same low wall, pointing in the same direction where fire came in last. You must combat this behaviour whenever it appears. Being proactive is best - for example, when setting into a defensive position, actively allocate manpower. Tell individuals to cover specific sectors, and then set another team as your "flying

party", the group that responds to wherever the contact is greatest. You cannot afford to have your soldiers abandon sectors.

Take the initiative

Exercising disciplined initiative that is aligned with the overall commander's intent is essential. Leaders are expected to be able to make educated and good decisions on their own without the guidance and permission of their higher up. Trust is placed on the shoulders of our section commanders and fire team leaders to be able to complete their job without micromanagement from the leaders above them.

When receiving orders from your commander they will generally ensure you have enough leeway to decide how to go about the job. Within that wiggle room, and a little ways beyond, there is generally no need to consult your commander.

Stay calm, solve problems

Screaming at your men for asking questions - even if you think they're stupid questions - is harmful and not effective communication. If their question has an obvious answer, just answer it. If time permits, explain why it is obvious or how they could have found out for themselves. Getting angry does nothing but lower the level of respect your soldiers have for you. Talk in a level tone, at a decent speed, to ensure you are understandable and not confrontational.

If your soldiers aren't doing what you've told them to do, assume they have a good reason for that and investigate. Do not yell at them to move if they should be moving but haven't. Find out if your soldiers are OK or whether they need help.

Common Tactics

Infantry Formations

You should be familiar with all the formations outlined in the Infantry Handbook. Remember to keep your soldiers to one of these formations whenever appropriate.

Establishing formations

Formations are most functional when there is a clearly designated guiding element and multiple offset following elements. In all the formation examples given in the Infantry Handbook, there is a designated (in white, with a line through) guiding element. In many scenarios, this will be your point man and somebody with a good sense of direction and initiative. Designate your guide element and instruct everyone else on how they should form up.

For example: "Alpha, form a base line, facing northwest. Cannibal, front and centre. Blue team off his right. Red team off his left. Cannibal, step us off."

Controlling formations

Fire team leaders and section commanders should keep an eye on the formation during movements as individual operators should be focusing on their sectors. Ensure the formation, and its spacing, is adequate and appropriate for the terrain and situation.

Road Crossing

When crossing an open road, it's of paramount importance that sectors up and down the road are covered at all times. To that end, road crossing technique involves two pairs of riflemen covering for the rest of the element in a step-by-step process best thought of like setting up the lifeguard flags at a beach.

1. Task one buddy team to move up to the side of the road, covering left and right. They should be spaced 5-10 metres apart so that the section can move between them.
2. Task another buddy team to move between the first, cross the road, and repeat the first pair's positioning on the other side.
3. Run the rest of the element through the flags.
4. Recall the first buddy team, who will cross and run in between the second buddy team.
5. Recall the second buddy team.

Breaking Contact

Sometimes you will be ordered to break contact from an enemy and move to another area - either as a simple matter of prioritizing what you're doing, or perhaps to retreat from overwhelming contact. In this scenario, it's important to remember to make good use of bounding overwatch, which is covered in the Infantry Handbook. Unless you're in complete rout and it's every man for himself, maintain as much control as you can over the situation by having your teams cover each other successively in retreat. Have covering teams pour on suppressive fire while retreating teams deploy smoke and run.

Ambushes

When carrying out an ambush, there are three elements that must be kept in mind: the positioning of friendlies, the location of the kill zone, and the proper initiation of fire.

Players must also consider the use of explosives devices like satchel charges and claymore mines. These are usually not practical for a hasty ambush, but a vehicle ambush or deliberate ambush can benefit greatly from their usage. Triggering explosives to start an ambush is very effective, as it

adds an extra layer of shock and confusion to the situation for the enemy.

When ambushes occur

Ambushes don't have to be long planned, sordid affairs involving road blockages and explosives and ghillies in the long grass. An ambush can occur any time you have the element of surprise over an enemy force. Under Universal ROE, soldiers are encouraged to use proximity, awareness, and danger to make a decision as to whether or not to engage targets. Whenever soldiers choose not to engage, and the enemy has no awareness of your force, you have the element of surprise and can enact an ambush.

Friendly positioning

The best ambushes have the friendly forces located in good cover and concealment, firing from an elevated position. This makes it the most difficult for the ambushed enemy to be able to effectively retaliate.

Location of the kill zone

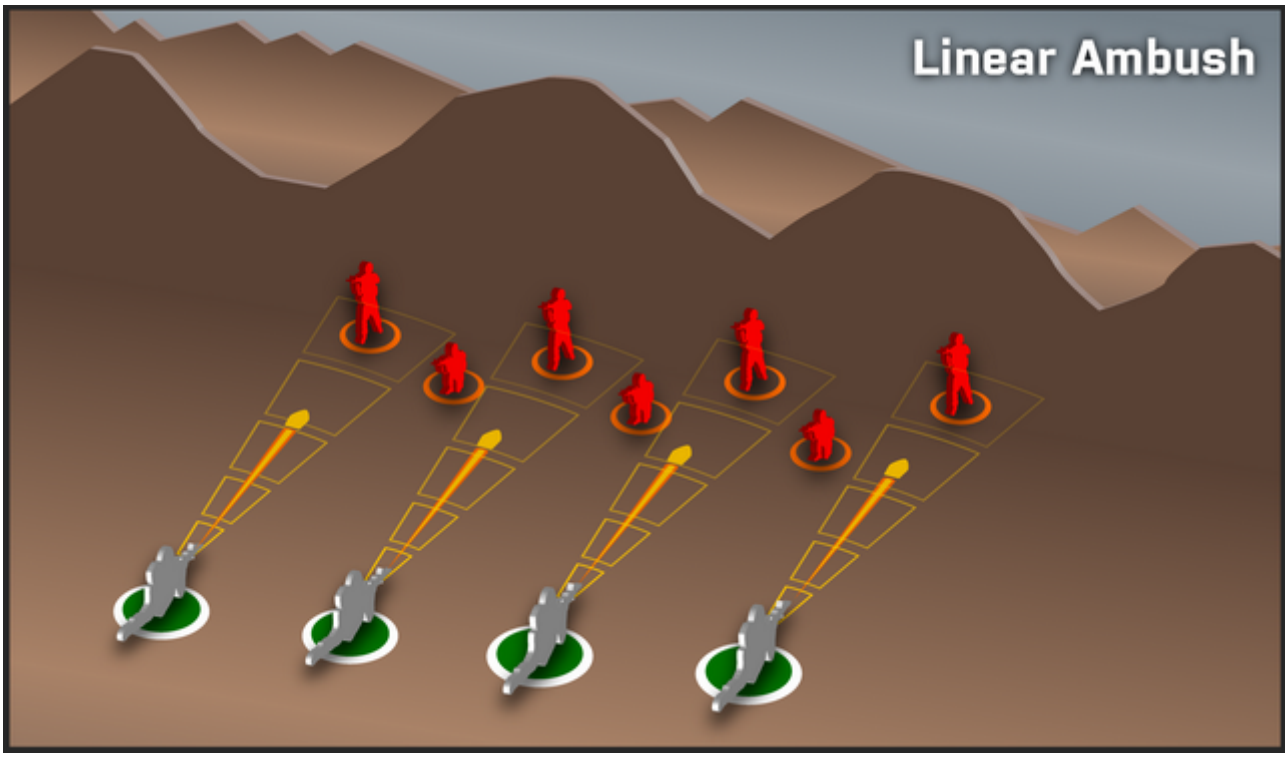
The kill zone is the area in which fire is focused at the initiation of the ambush. An ideal kill zone has very little cover or concealment, and no significant terrain features that might cause "dead zones" to exist. A kill zone should be well-covered by friendly lines of fire, and any potential exits from it should be able to be fired at/into without friendly forces shifting positions. Grenadiers should ensure that any "dead space" or obvious cover or concealment can be easily be taken under fire with their grenades and position themselves accordingly.

Proper initiation of fires

The signal to start the ambush is usually given verbally by the element leader (i.e. section commander). He will give a warning that the ambush is about to begin, so that everyone can sight in on targets and prepare to fire. Once the order is given, all friendlies should begin firing a heavy and accurate volume of fire into the kill zone. Continue firing until all enemies are confirmed dead or the element leader gives a command to shift or cease fire.

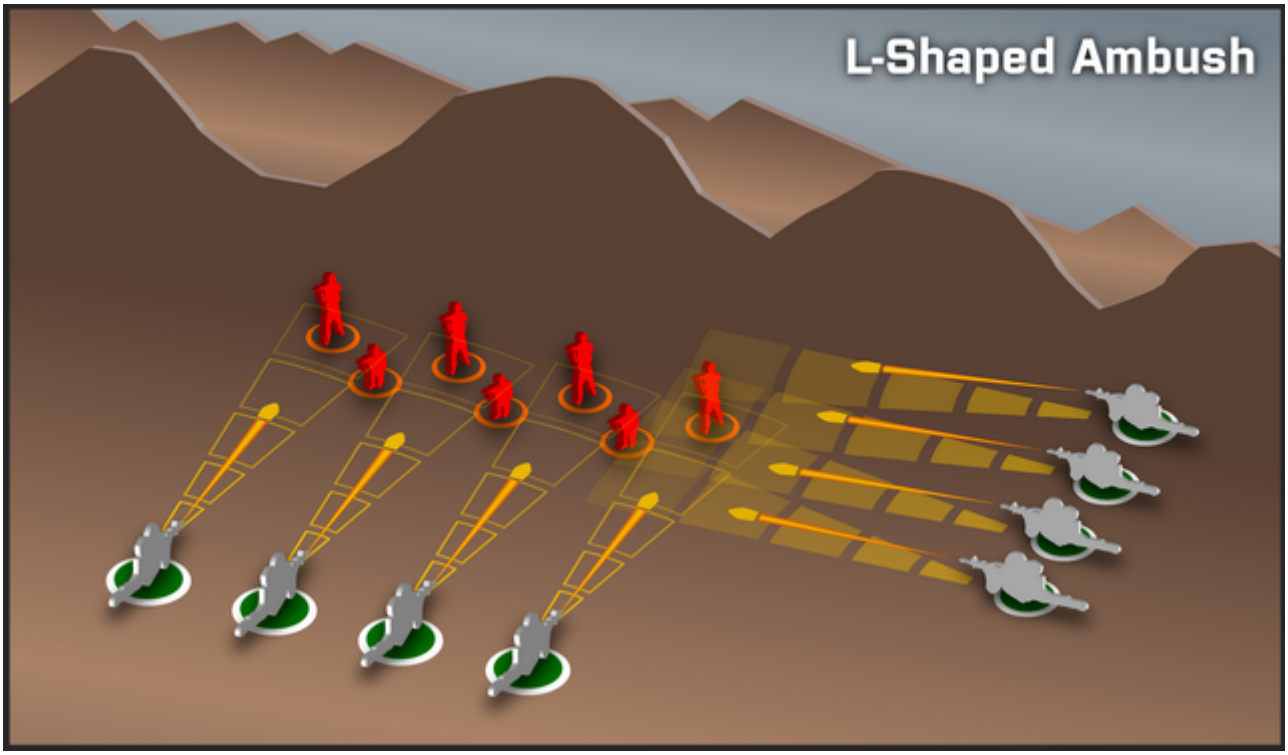
One special consideration must be made clear for ambushes - **if a friendly accidentally fires before the element leader, the ambush is initiated whether it should have been or not**. All players must immediately open fire in such a situation to try to salvage as much of the surprise and lethality as possible. One must also keep in mind that a player may hastily fire on an enemy who has spotted the ambush group, in which case he may not have time to announce what is happening and must rely on his teammates to immediately begin firing on their targets as well. Because of both of these situations, every member of an ambush team must be ready to initiate fires either at the element leader's verbal command or the sudden firing of any member of the ambush party.

The linear ambush



- Easy to set up in a hurry
- All forces arrayed in a single line facing the enemy
- The longer the ambush line, the harder it is for the enemy to seek cover
- However, the line should not be thin enough that the enemy can punch through

The L-shaped ambush



- Slightly more complex to organise
- Markedly more effective than a linear ambush

- Nearly impossible for enemy to seek cover from both fronts
- The second front can be as simple as a single marksman or machinegunner
- Either front can transition to manoeuvre and assault, finishing the enemy

Reacting to being ambushed

In many cases, you'll be ambushed in an open zone and the direction of the ambush will be clear enough. In those cases, the procedure for reacting to an ambush is straightforward (if difficult to execute if your team members are quickly becoming casualties).

1. Firstly and foremost, ensure your team members are individually moving to any available cover and returning as much volume of fire as can be mustered in the process.
2. Throw smoke and fragmentation grenades where appropriate to disrupt and deter enemy assault.
3. Analyze the kill zone you find yourself in. Decide on a direction of egress.
4. Task one element to continue providing a volume of fire and one element to bound towards your egress.
5. Continue bounding overwatch to cover retreat by elements.

In cases where ambushes are omni-directional, inconsistent, and difficult to identify the source - common in urban engagements, for example - you need to retreat very quickly, usually in the direction you came or towards other friendly forces, utilizing fire and movement. Task buddy teams with bounding from building to building as you fall back, the forward element always stopping and turning to cover the rear element.

Vehicle Tactics

While vehicles are used much less than helicopters, it is still important that you as a team leader are able to effectively command and control a vehicle. Being able to conduct contact maneuvers and effectively command your individual vehicle is highly important to the success of a convoy mission or vehicle assault. As we have learned in the past, poor usage of vehicles will lead to the collapse of the entire convoy and eventually the entire mission.

The main basic things that should be check prior to stepping off are as follows:

1. Ensure the vehicle has its internal radio set to 41 flat and that it is on speaker. It is important that the vehicle and its crew hear all calls for the convoy such as heading, speed, spacing and contact calls. That way the driver, navigator and gunner can respond accordingly without the need for this information to be relayed through you.
2. Ensure you know your speed, spacing and target location. Clear communication and full understanding of the intent of the convoy is important to its success.
3. Ensure your driver and gunner are somewhat competent and do not suffer from poor frames or internet issues. Desync, lag or otherwise will cause issues for the convoy and in

the worst case it will end in death.

Herringbone

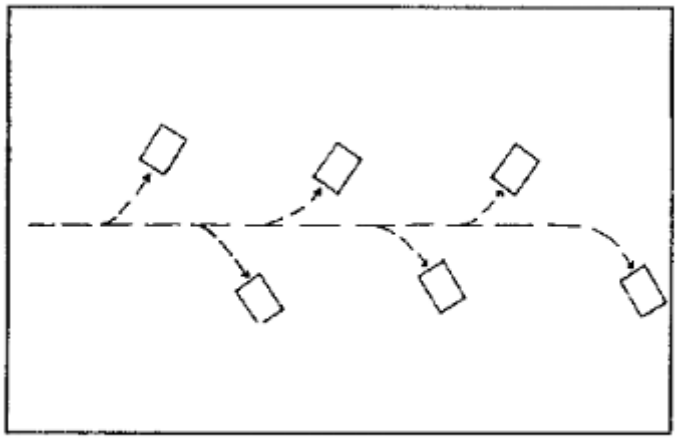


Figure 7-7. Herringbone formation.

When taking fire the convoy commander has two options. Break through the contact or conduct what is called a herringbone maneuver. A herringbone is the most essential formation to know in a convoy and should be understood and practiced by everyone within the detachment.

Column formation

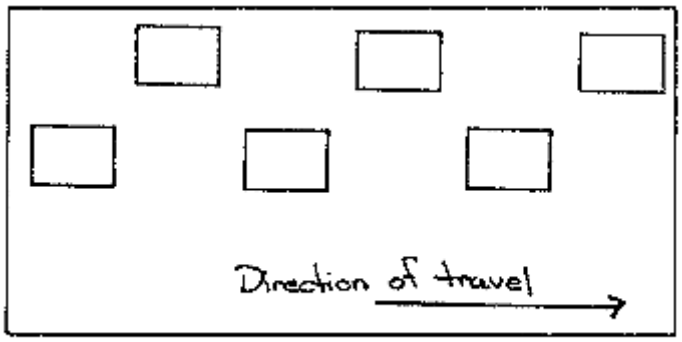


Figure 7-1. Staggered column formation.

The column formation is used for road marches, for movement during limited visibility, and when passing through restrictive terrain. The platoon can deploy rapidly from the column formation into other formations. The column simplifies control and provides good security. It affords all-round observation and fields of fire.

Other formations

Wedges and base lines are utilised far less often with vehicles, but sometimes the situation calls for it. They might be deployed when creeping a number of vehicles forward in support of infantry, or when lining up a number of vehicles with mounted weaponry to be able to fire forward on an enemy force.

Formal Radio Telecommunications (RATEL)

This document is a guide for infantrymen on the correct procedures when using long range radios. This will cover everything from initiating the communication, to transmitting your message, to closing. Everything you will learn is focused on being clear, concise and effective over the radio to ensure that the message you are trying to send is quickly and fully understood.

What is RATEL?

RATEL (Radio Telecommunications) is a set of procedures used by infantry and air to keep radio communication short and to the point. As a JTAC or an NCO, you must also be able to communicate at short ranges and long ranges between sections, the platoon and air assets. RATEL is an essential skill and crucial to success in leadership at any level.

Useful Phraseology / Pro Words

PHRASE	**MEANING**
Roger	Your message was received and understood.
Say Again	Please repeat your previous radio transmission.
Wilco	I will comply with your previous order.
Break Break Break	Interrupt another conversation with urgent information in an emergency.
Nothing Heard	An entire transmission was missed or not received.
Over	My transmission is complete and your response is expected.
Out	Our radio conversation is complete and no response is expected.
Wait	A several-second pause will follow, and I will continue after.

Wait Out	A significant pause will follow, so I will hail you again later to follow up.
More to Follow	Works similarly to wait or wait out.

Anatomy of a Transmission

Knowing the basic structure of a transmission is the first, most fundamental skill you must have when operating a radio. A transmission starts when you key your radio and begin talking, and it ends when you release the radio key. Transmissions consist of four major parts; recipient, sender, message, and close.

1. The callsign of the **RECIPIENT** (who you're directing this transmission to)
2. The callsign of the **SENDER** (announce who you are)
3. The **MESSAGE** (flexible; could be a request to converse, an acknowledgement, or an entire report)
4. The **CLOSE** (usually either *over* OR *out* - obviously, never both - but sometimes *wait* or *wait out*)

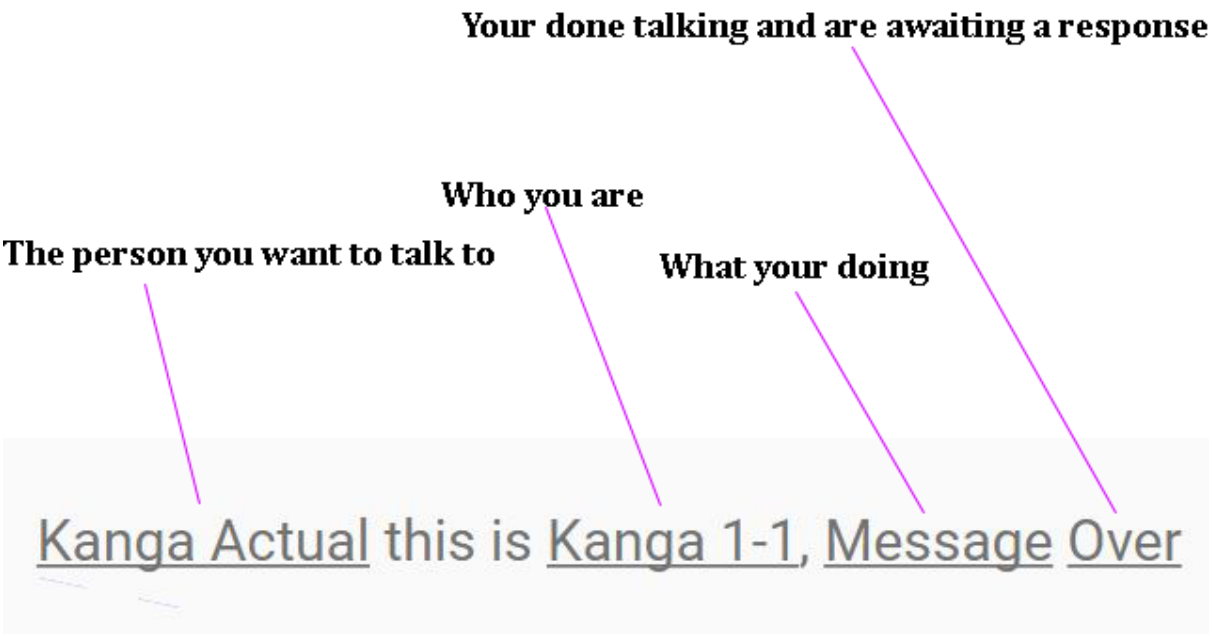
This format is used every time you key your radio; some contextual examples of its usage can be found below.

Anatomy of a Conversation

The Wave

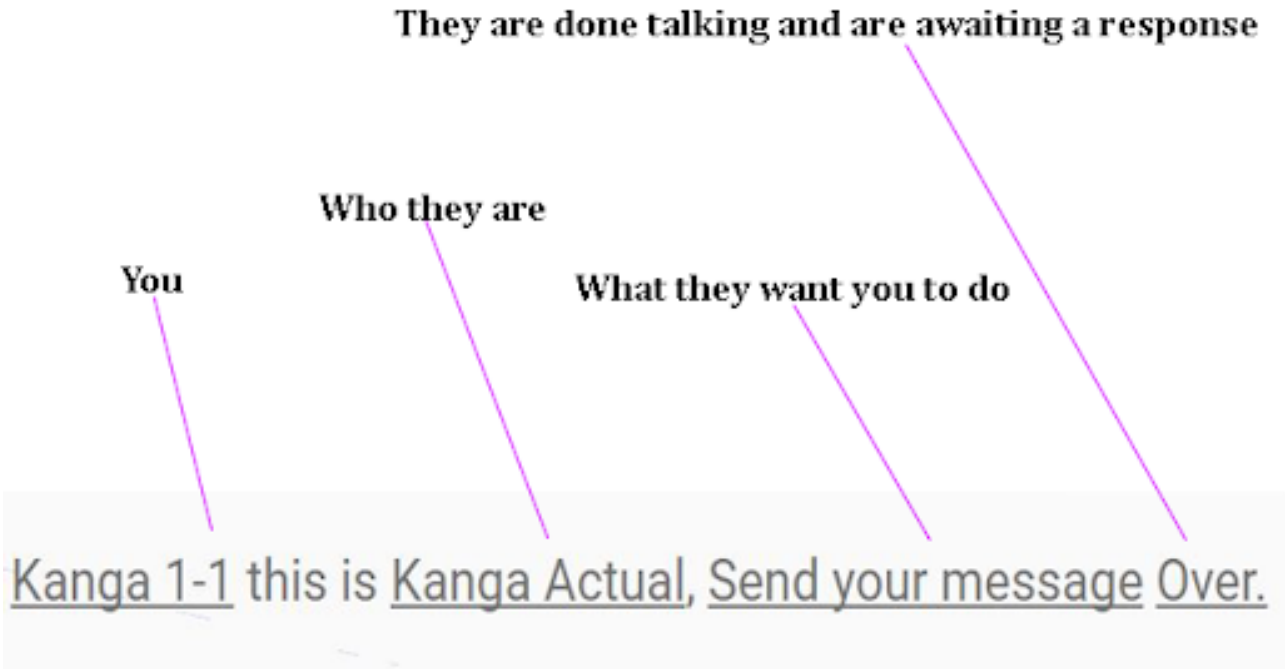
A conversation is an exchange of multiple transmissions between two elements on the same frequency. A conversation opens with a *wave* - wherein the sender signals the recipient and indicates a request to converse. The wave is important to establish that both the sender and recipient are ready to continue; the demands of the operation at hand frequently dictate limits on when officers can dedicate attention to a conversation.

In a high-pressure situation, the sender might have to repeat their wave after a short time to get the recipient's attention. Once you've waved another element three times with no response, you should assume they are uncontactable for the time being and close your conversation with "nothing heard, out," opening up the radio for other elements to use once more.



The Response

The recipient returns a *response*, confirming unambiguously that they, the recipient, are ready to carry out the conversation and you should proceed with your next transmission.



The Rest

After the sender has received the response, they can send another transmission containing a message - an order, an interrogative, a request, or something else. The recipient replies as

appropriate, and each goes back and forth following the close of the other's last transmission. It is the initial sender's responsibility to terminate the conversation; once they have what they need, they must close their final transmission with the pro-word "out" to indicate that the conversation is done and other elements can then use the net.

It's important to think through what you want to converse about before you ever send a wave - you and your recipient will almost never be the only two elements on the frequency, and one frequency will only support one conversation at a time, so to keep information flowing it's important to be concise.

The Readback

An important part of radio communication is the readback. This is the part where - especially when receiving orders or important information - you re-summarize what you've heard and state any figures or specifics, to ensure that you've received the correct details.

It's important to grant the opportunity for the sender to re-transmit their message and correct any mistaken communication; especially, for example, where a single missed grid digit might result in a CAS run missing the enemy force (or hitting your own instead!).

Example: Contact Report

1-2: "1-1, this is 1-2. Contact report, over."

1-1: "1-2, this is 1-1, send your contact report, over."

1-2: "1-1, this is 1-2, we're in contact from grid, wait..."

A short pause, as indicated by the pro-word "wait".

1-2: "Grid zero five seven eight, two six five five. Say again my last, over."

"*Say again my last" is a way to specifically request a readback from the recipient.*

1-1: "1-2, this is 1-1. I copy grid 0578,2645, over."

1-2: "1-1, this is 1-2, wrong grid. I repeat: 0578,2655, over."

1-1: "1-2, this is 1-1. Grid 0578,2655, over."

1-2: "1-1, this is 1-2. Good copy. Contact from that grid consisted of indirect machine gun fire and mortars, over."

1-1: "1-2, this is 1-1. Acknowledged, machine guns and mortar fire, over."

1-2: "1-2 out."

Example: Orders

1-1: "All teams, this is 1-1. Check in, new orders, over."

When addressing multiple recipients, the recipients should respond in order of command seniority.

1-2: "1-1, this is 1-2, ready for orders, over."

1-3: "1-1, this is 1-3, send orders, over."

1-1: "All teams, this is 1-1, new orders are to form a section base line and progress from the 1-A mark to the 1-B mark. 1-2 is to take the left wing and 1-3 the right wing. I repeat: Section base line from 1-A to 1-B. How copy, over?"

1-1 uses "how copy" to request a readback from all teams to ensure they have interpreted the orders correctly.

1-2: "1-1, this is 1-2, forming section base line facing 1-B mark, we've got the left wing, over."

1-3: "1-1, this is 1-3, section base line, we're on the right, moving to 1-B mark, over."

1-1: "All teams, this is 1-1, begin your movement. Out."

SITREP (Situation Report)

Now that we have covered the basic structure of a radio message, we will now cover some more advanced radio procedures that as a radio operator you will find yourself having to complete.

The first basic procedure we will cover is the proper format of a SITREP, or a Situation Report. The situation report is used by a commander to establish the overall picture of what each element is currently doing, what they need, and what they are planning to do next. During briefing your commander may choose to set SITREP intervals - for example, establishing a SITREP every 5 minutes. SITREPs are usually provided by section elements to HQ, but a section leader might request SITREPs from their fire teams.

You should include 5 pieces of information when providing a situation report:

1. **LOCATION / OBSERVATION** (where you are, and what you see)
2. **CURRENT ACTION** (what you are doing right now)
3. **PREVIOUS ACTIONS** (what you have done / have been doing)
4. **CURRENT PLAN** (what you're planning on doing / where you're planning on going)
5. **ISSUES / REQUIREMENTS** (short on ammo/medical, or need support?)

Step 5 can be omitted if you're on track with your objective and have no requirements or obstacles at the current time, but you still may wish to mention that (e.g. "*No additional assistance required at this time.*").

Example: Situation Report

Sunray: "1st Section, this is Sunray, SITREP, over."

1st Section: "Sunray, this is 1st, we're at grid 1234,5678, moving from here to grid 4321,8765, more to follow."

"*More to follow*" *works like* "*wait*" *or* "*wait out*"*; 1st Section doesn't need to re-open the transmission.*

1st Section: "We've just cleared the town of Staszow at grid 1233,1332 - we plan to move to Hanover at grid 6666,7777 and clear it out, more to follow."

1st Section: "We'll require air support to weaken the fortifications around the town, over."

Sunray: "1st Section, this is Sunray, acknowledged your last, we'll arrange the air support, out."

ACE Report

When your section has been in contact and there is a lull in the battle, it is always a good idea to conduct an ACE (Ammunition, Casualties and Equipment) report. ACE reports have four different levels.

	Ammunition	**Casualties**	**Equipment**
Green	Plenty of ammo.	No injuries.	No equipment used.
Yellow	Down to half ammo.	Minor injuries.	Half equipment used.
Red	Dangerously low ammo.	Casualties, major injuries.	Low on equipment.
Black	No ammo.	Mass casualty.	No equipment remaining.

When providing an ACE report, you should include each category and the appropriate colour. You can provide an ACE report at your discretion, or when asked to by your commanding officer. ACE reports are essential for painting a clear picture to commanders as to your current situation. Fire team leaders can give ACE reports to section leaders, who can give ACE reports to HQ, so all commanders up the chain are fully aware of the state of their constituent elements.

Example: ACE Report

1st Section: "Sunray, this is 1st, SITREP for you, over."

Sunray: "1st, this is Sunray, send your SITREP, over."

1st Section: "Sunray, 1st. Ammunition: red, need resupply urgently. Casualties: yellow, minor injuries from prior contact. Equipment: black, used all our AT, need urgent resupply. 1st section is not currently combat effective, over."

Sunray: "1st, this is Sunray, acknowledged, sit tight, I will contact you again later to arrange supply drop, over."

1st Section: "Sunray, 1st, we will await supply drop, out."

IN CLOSING

This document has covered the phraseology, concepts, and skills required to engage in formal radio communications over long range nets, such as between sections and HQ, or to HQ assets such as aircraft. You should be familiar with how each transmission should be structured, as well as how a conversation should begin, carry out, and end; additionally, you should know how several frequently-used report structures are utilised.