Charlie Foxtrot Standard Operating Procedures

Basic Comms

Contents

1. Basic comms

This section will teach you everything you need to know to play as the radio operator. In short you will be taught three things:

- How to determine the range to an enemy using the map
- How to use the anti-tank launcher
- How to use the marksman rifle

A. How to use ACRE 2

Controls

You were given a basic introduction to the ACRE controls in Basic Infantry. However, you'll be using two radios now, which means you'll have to learn some new key bindings. Here's an overview of all the controls. We'll go more in-depth on some of the more important ones.

- **Talk on currently selected radio**: Caps lock
- **Talk on short-range radio (AN/PRC-148)**: Shift-Caps lock
- **Talk on long-range radio (AN/PRC-117)**: Ctrl-Caps lock
- **Open/Close Radio**: Ctrl-Alt-Caps lock
- **Cycle Radio**: Alt-Shift-Caps lock
- **Set Radio Left Ear**: Ctrl-Shift Left Arrow Key
- **Set Radio Right Ear**: Ctrl-Shift Right Arrow Key
- **Set Radio Both Ears**: Ctrl-Shift Up Arrow Key

The most important controls here are 'talk on short-range radio' and 'talk on long-range radio'. You'll be using both of these to provide communications between multiple elements.

Cycle radio is primarily used so you can switch between your radios to change settings (for example the channel).

To make the incoming information from multiple sources easier to digest, it's a good idea to assign each radio to a specific ear. Using the key bindings listed above, you can, for example, assign your short-range radio to your left ear and your long-range radio to your right ear.

AN/PRC-148

The AN/PRC-148 is the main radio for communication within the team. Technical information on how to use this radio can be found in the Basic Infantry training.

AN/PRC-117

The 117 is a long-range backpack radio. Depending on the circumstances it can reach up to 20 kilometers. This makes it an ideal radio for communicating between the teams at ranges the 148 might have issues with.

There are a bunch of settings on the 117 that we will not be using. You only need to know the following:

- **1 –** Change channels: The + and – buttons switch through the preset channels. In a regular mission, you shouldn't have to touch this on the 117.
- **2 –** Change volume: The + and – buttons allow you to change the volume.

B. Communication

Introduction

Communication in Charlie Foxtrot is divided into three layers:

- Long-range radio (117)
    - The highest level of communication with the highest range
    - Communication between teams
    - Only very few people can communicate on this level

- Short-range radio (148)
    - Communication within a team
    - Backup solution for communication between teams
    - Large amount of people on this level

- Direct speech
    - The lowest form of communication with the lowest range
    - Communication within a team and everyone within earshot
    - Highest amount of possible interference because of its low range and objects blocking what you're saying.

Most players will only communicate on two of three possible levels. The radio operator is unique in the sense that he can and will communicate on all three levels. You will be exchanging information at the highest level and then passing that information on to your team lead using direct speech or the short-range radio. Meanwhile, you'll also have to follow orders that your team lead is giving your over the short-range radio or direct speech.

While managing all this, the radio operator has to make sure that his transmissions are quick and smooth. You have to think about what you want to say before you start transmitting, because when you start talking over the radio, you're occupying that channel. No one else can exchange information while you are transmitting.

All of this clearly shows why we divide the teams over multiple radio channels. When you reach a certain amount of people, a particular radio channel will get saturated and communication will become slower and more difficult. By splitting them up, we grant the SF teams autonomy and we can move the teams further apart, which in turn gives us more options in how we can approach any given situation.

Radio vocabulary

Before we get into specific radio procedures, we have to go over some vocabulary that we often use. This is vocabulary that you'll use very often when talking over the radio, so it's very important that you understand and are able to use these terms.

- **Over**: Used at the end of a radio transmission, whenever the conversation isn't over yet. Basically, use over at the end of every transmission unless you're supposed to use out.

- **Out**: This is used to end a conversation over the radio. As a general rule of thumb, whoever initiates a conversation should be the one to end it. See below for usage in an actual transmission

- **Affirm(ative)**: Means 'yes'.

- **Negative**: Means 'no'.

- **Roger/copy**: I understand what you just said to me.

- **Wilco**: Means 'will comply' – you will follow an order that was just given.

- **Go ahead/send**: Send your transmission.

- **Say again**: Repeat your last message *(Don't use "repeat" – this is used to request additional artillery fire, so don't use this to avoid confusion!)*

- **Break-break**: This is used whenever you have to send a message urgently, even though a conversation is ongoing. Seeing as whoever is transmitting cannot hear you, you call it the first time while someone is talking so that no one else will respond after he's done. Then, you call break-break again so that original transmitter doesn't start talking either. After that, you send your emergency message.

- **Standby, wait one**: You ask the other person to wait. This doesn't end the conversation; it merely puts it on hold.

- **How copy?**: Used at the end of a transmission (before over). It prompts the other person to repeat what you just told them. Can be used to make sure the other person properly understands what you just said.

- **SITREP**: Situation report – Used to get a quick overview of one or more teams' status. It consists of the following elements:

  - Team status
    - Describe how the team is doing in terms of how healthy they are using the following terms:
      - Up: team members that are not dead or unconscious, can be wounded
      - Wounded: team members that are wounded, but not dead or unconscious
      - Unconscious: team members that are unconscious
      - KIA: Killed In Action, dead
      - Down: unconscious or dead, used when uncertain
    - Example: "4 men up, 2 wounded, 1 unconscious and 1 KIA"

  - Ammo status
    - Green: over 50% ammo remaining
    - Amber: less than 50% ammo remaining
    - Red: less than 25% ammo remaining

  - Status on orders
    - E.g. we have almost reached waypoint one. Encountering heavy resistance.

  - Any additional information that is relevant.

If there are multiple teams that are supposed to provide a SITREP, the teams will provide them in order. If there are 3 teams that would mean team 1 would go first and then team 2 and then team 3. If a team doesn't reply, the next team should wait around 15 seconds to give them time. If they still don't reply, that team is skipped and the next team provides their SITREP.

When a SITREP is called, you don't have to reply right away as a radio operator. Instead, tell your team lead a SITREP has been asked for. He'll then tell you what to relay to back to overall lead.

- **NATO phonetic alphabet**: We primarily use the NATO alphabet when talking about waypoints, observation points and attack points. They are usually abbreviated to WP, OP and AP. In order to avoid confusion, we'll say "whiskey papa 1", instead of "WP1".

Radio procedures

Here we'll go over a bunch of radio procedures. These are very important as they will teach you how to talk over a radio.

Establishing contact & ending it

Establishing contact

Every time you want to talk to someone over the radio, you have to establish contact first. You have to make sure that the person you're trying to talk to, can hear you and is ready to receive a message. Here's how:

Target call sign + source call sign, message, over

E.g. SF2, this is SF1, message, over

The opposing party will respond like this, if they are ready to receive:

Target call sign + source call sign, send it, over

E.g. SF1, this is SF2, send it, over

From here on out, contact has been established and you can start talking "normally" over the radio.

Ending contact

Ending the conversation is usually done by the initiator. It signals to everyone else that the channel is open and ready to be used by someone else.

Target call sign + source call sign, *optional message*, out

SF2, move to whiskey papa 1, over

SF1, this is SF2, roger wilco, over

Out

Here we can see that SF1 ends the conversation without adding anything more to it. This is entirely possible. The point of having the initiator end the conversation is to avoid confusion on how to end a radio conversation.

These procedures, combined with the vocabulary listed above, will provide the framework for most of your radio transmissions.

Comms check/ Radio check

A communications check is usually done in the beginning of a mission to make sure both teams can talk to each other. It can also be done in the middle of a mission, in case you don't get a response back.

Target call sign + source call sign, comms check, over

SF2, this is SF1, comms check, over

Target call sign + source call sign, status of comms check, over

SF1, this is SF2, read you loud and clear, over
or
SF1, this is SF2, I can barely read you, over

Target call sign + source call sign, roger that/copy, out

SF2, this is SF1, copy that, out

If there are multiple teams that are supposed to provide a comms check, like in a squad, the teams will provide them in order. If there are 3 teams that would mean team 1 would go first and then team 2 and then team 3. If a team doesn't reply, the next team should wait around 15 seconds to give them time. If they still don't reply, that team is skipped and the next team provides their comms check.

Interaction with lead

As a radio operator, you are exchanging information with another radio operator. However, neither of you are the leader of your team and so neither of you have a full overview of the situation. By yourself, you simply don't have enough information to answer some of the questions that the other radio operator might ask you. Therefore, it's extremely important to communicate well with your own leader to come by that information.

Practically, it comes down to this. Whenever you're asked a question over the radio that you don't know the answer to, you put the other person on hold and ask your lead the same question. Using "standby, over" or "wait one, over" usually does the trick. There's no need to end the conversation and later re-establish it as you should be able to get the information you need quickly enough.

# C. Reading the map

Grid references

The map is divided into a large amount of squares, which together form a grid. This grid can be used to reference a certain location, but we will not be going into that in this training.

The reason the grid is relevant, is because every square in the grid has a certain size at a certain zoom level on the map. If you zoom in all the way, a single side of the square is **100m** long. If you zoom out some more, the grids will increase in size up to **1000m** long (also called a **klick**). If you zoom out all the way, the grids will reach a size of **10000m** (or 10 klicks). All of this is extremely helpful when ranging a target using the map.
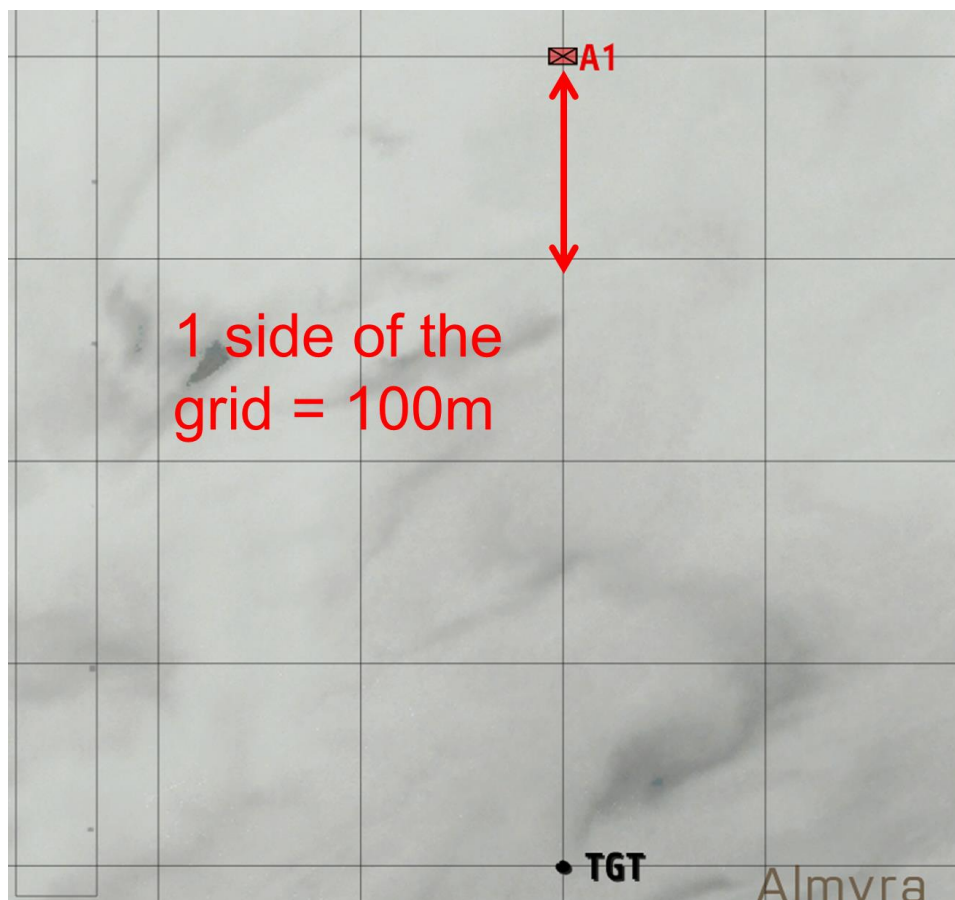
Here you can see one side of the grid at maximum zoom level.
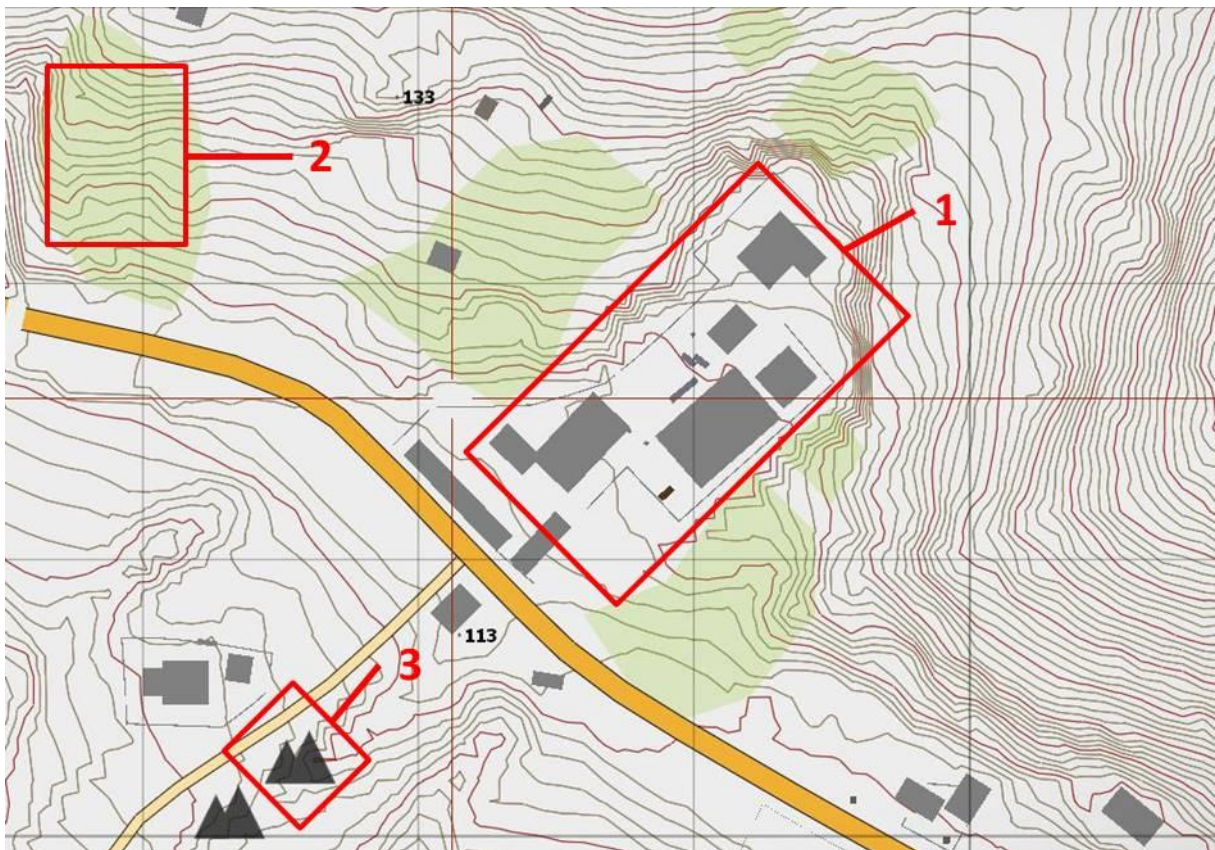
Contour lines
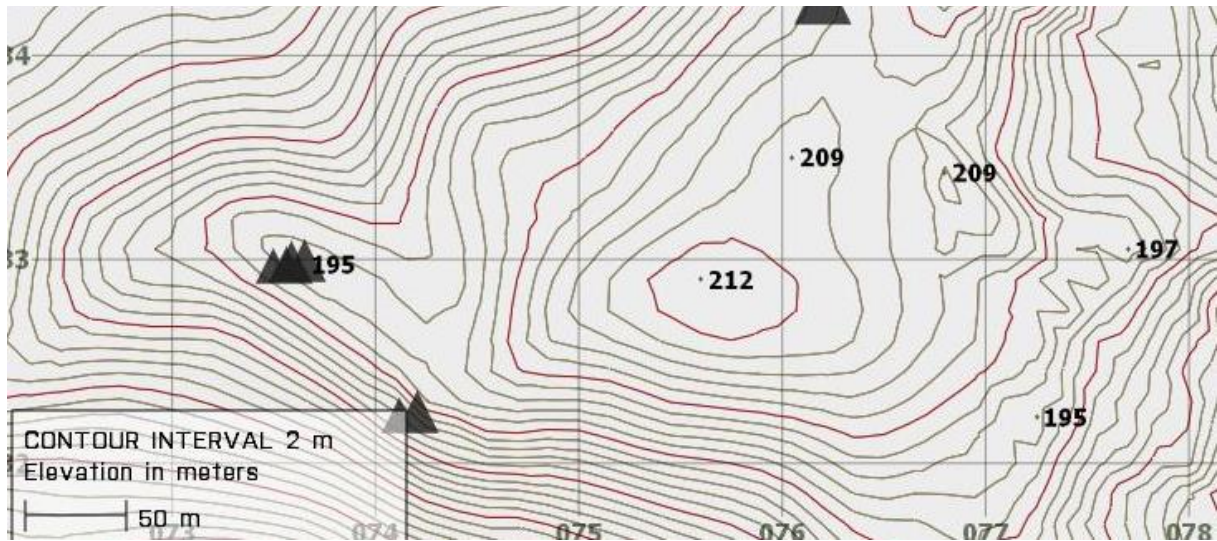
Contour lines represent the change in elevation of the map. The closer they are together, the steeper a slope is. Vice versa, if they're far apart, it's a very shallow slope.

In the bottom left of your map, you'll also see a piece of text that says: "CONTOUR INTERVAL X m). This changes depending on your zoom level and tells you how much change in elevation there is between each contour line. At higher, this zoom level will be higher, because there will be less contour lines.

Some contour lines are red. These are useful, because they represent a larger unit of elevation. Just like the other contour lines, how much elevation they represent is dependent on your zoom level. To quickly determine how much difference in height they represent, multiple "CONTOUR INTERVAL X m" by five.
At max zoom level, it's 5 meters.
At minimum zoom level, it's 500 meters.

Map symbols

The map in Arma 3 contains a bunch of symbols that are very helpful to determine what the terrain will look like. We've already discussed the contour lines, but there are a couple more useful ones.

1. Grey rectangles and thin lines represent buildings and walls, respectively.
2. Green patches represent groups of trees and other vegetation.
3. Black triangles represent groups of large rocks.

Furthermore, roads are divided into 3 categories in Arma.

- Large paved roads, marked in dark yellow
- Smaller, but still paved roads, marked in light yellow
- Small dirt roads, marked in white

Range estimation with rangefinder

As the radio operator you have a Vector, which is a laser rangefinder. It works like a regular set of binoculars, except that it can determine range and azimuth (direction). When looking through the Vector at your target, hold down TAB and R until you see a red circle appear. Let go of both tab and R. The range and azimuth will appear on the vector, until you range a new target or you put the Vector away.

In this training, we'll also teach you how to estimate the range without using the Vector. This is an important skill to have, because other slots might not have a rangefinder. It's also not possible or safe to get direct line of sight to your target, making the Vector useless in that scenario.

Range estimation with the map

The main way to estimate the range to a certain target is accomplished by using the map.

To start off, you'll have to be able to find the target on the map. This is usually done by finding landmarks close to the target on your map. This can be a group of trees, a building, a set of rocks, etc.

First, aim at the chosen landmark. Next, open your map and find where your team is located using the markers (e.g. SF1). Place your compass over your marker. Your compass will automatically point in the direction you're currently aiming. Observe the terrain to which your compass is pointing and try to find the landmark you previously found, on the map. Once you've found it, use it as a reference to locate the target.

Now that you have found the target, you can estimate the range.

If the target is directly to your south, north, east or west, simply count the amount of grids between you and the target. Multiply the amount of grids by 100. This will give you the range in meters.

⊠A1

4 grids:
4 x 100 =
400m

• TGT

Almyra
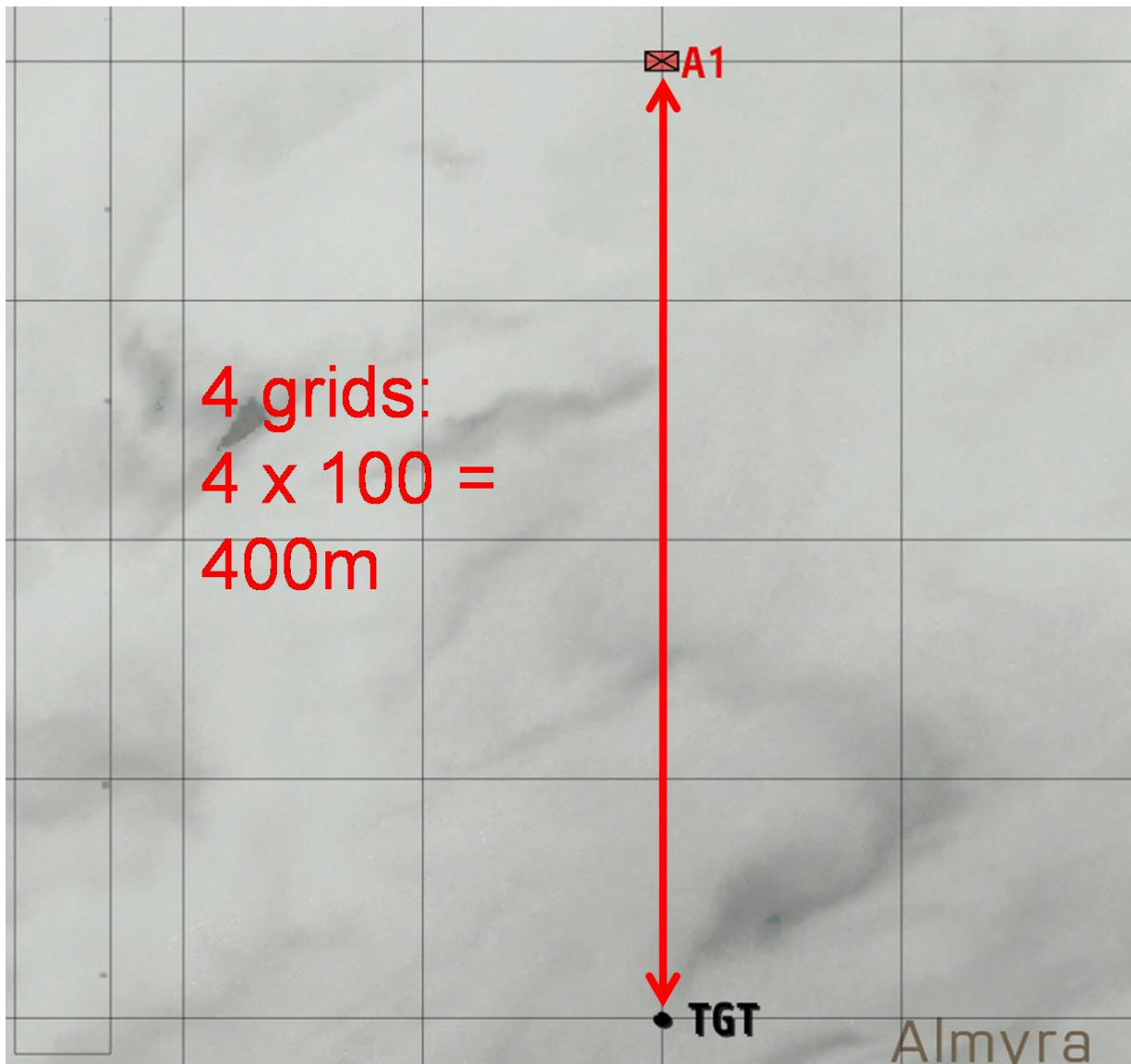
If target is directly to your south-east, south-west, north-west, etc., count the amount of grids between you and the target and multiply the amount of grids by 140. This will give you the range in meters.

A1

4 grids:
4 x 140 =
560m

Almyra

• TGT
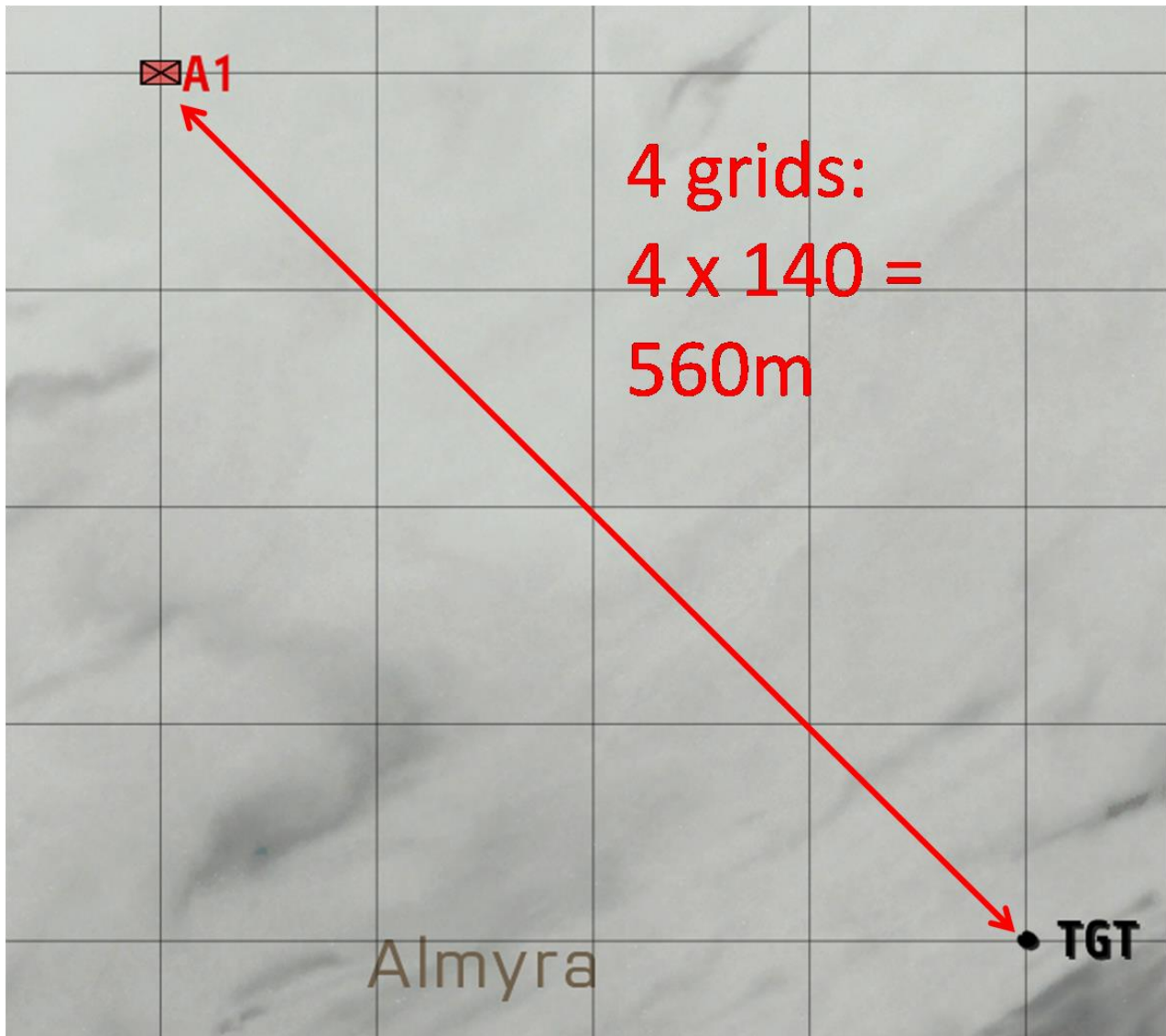
In all other cases, you can count the amount of horizontal grids towards your target and the amount of vertical grids and use the Pythagorean Theorem ($a^2 = b^2 + c^2$)
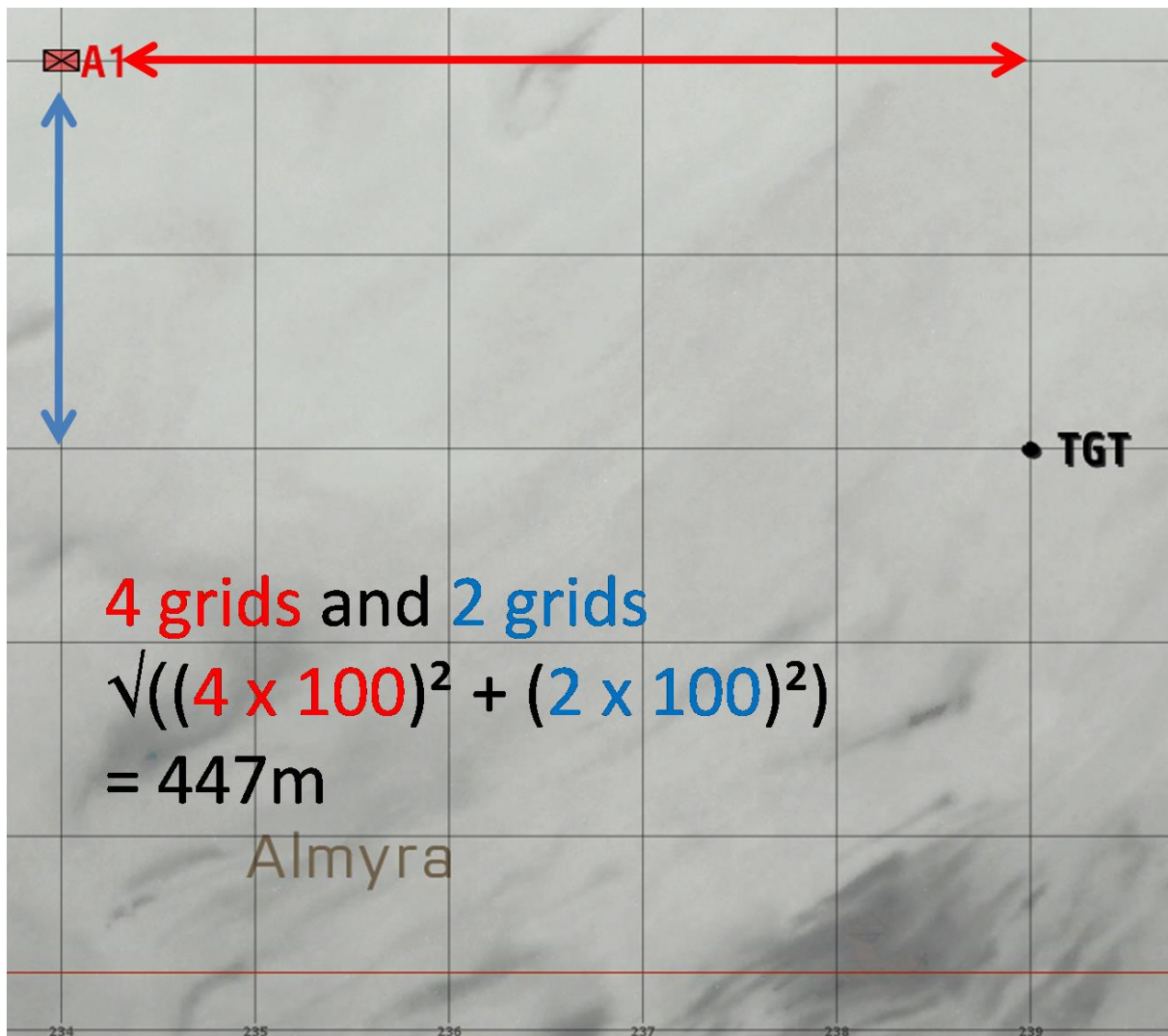
This method is more complex than the previous ones and usually requires a calculator unless you're a mathematical genius. Most of the times, however, your target won't line up perfectly like in cases 1 and 2. At this point you'll have to start estimating the range. This is not something that is easily taught and is instead a skill that you will pick up as you practice ranging targets.

Range estimation with map tools

Another way to estimate range is by using map tools, added by ACE 3.

This method is often more accurate, but takes more time to execute.

Before you start, make sure you know where you are and where the target is. See above for more on that.

Now, start off by looking directly at the target. Then open your map. Next, use the ACE self-interaction menu (ctrl + left windows) and select map tools → show small map tool. Now the map tool should have appeared in the far bottom corner of your map.

Drag the map tool close to where you are on the map. Open the ACE self-interaction menu again and select "Align map tool to compass". The map tool will now point in the same direction as you.

Now all you have to do is measure the distance between yourself and your target. The 0, 1 and 2 are intervals of 10 centimeters.
10 centimeters is 1 kilometer, 1 centimeter is 100 meters and 1 millimeter is 10 meters.

Convert the amount of centimeters to meters/kilometers and you'll have estimated the range.

Below is an image of the map tool with 100 meters and 1 kilometer marked.