- WIS logistics: This is for the detailed logistics system.

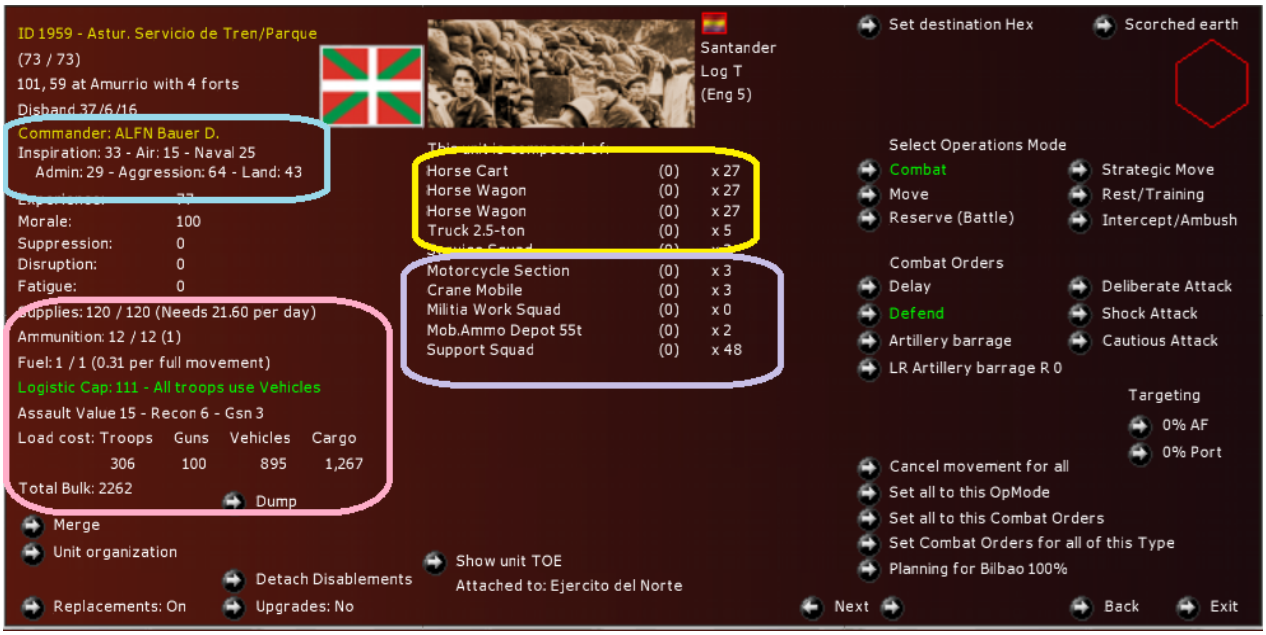
- **Logistics in WIS are somewhat simple as a player doesn't have to keep track of every food ration, bandage, bullet, bomb, artillery shell, torpedo, etc**. These currently are represented by supplies in the game and are not differentiated and are created in the game by Light Industry (LI) at bases.

- **Supplies don't move on their own, so Logistical Units and/or Logistical Devices move them around.** Logistical devices are railroad cars, which represent the trains that are the heavy haulers of supplies, trucks, wagons, and carts that are powered vehicles that move supplies. Trucks use fuel while the horses pulling the wagons and carts use supplies. The other devices that haul supplies are horse, mule, and camel devices as well as support devices representing just human bearers carrying the supplies.

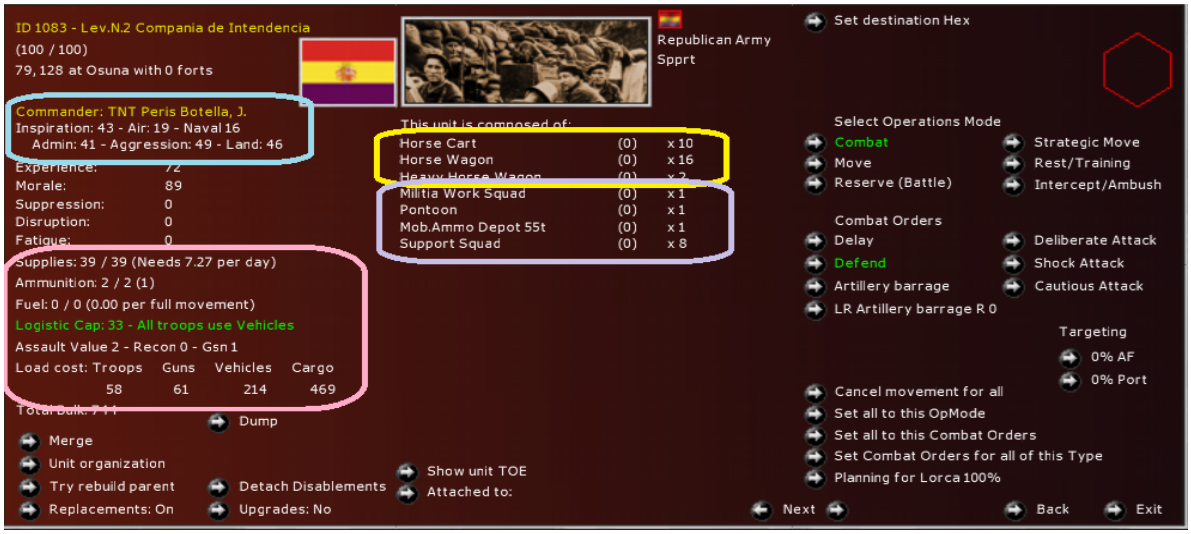
- **Railroad Logistical units work from train depots, and each size of a train depot can handle one railroad (RR) device.** A RR device isn't necessarily just one railroad car but an entire train. These trains are not like modern trains and rail cars as they carry less cargo. These trains also use coal to power their boilers and some fuel as lubricants and other uses as shown in the attached pink area (see picture below). The blue area shows the load cost of the unit to load it onto ships. The RR logistical units must move on railroad tracks and cannot leave the tracks (unless bugged, which should be reported to the developers). RR logistical units will move supplies, fuel, resources, oil, and other items from train depot to train depot. They will travel up to 60 hexes on the railroad line from their train depot. *Please note that these are not the trains used land combat unit (LCU) strategic movement.* If attacked, they can retreat along the railroad lines but if that is not possible, they are captured or destroyed. Remember that if you do capture devices, the reserve (RSV) unit can be turned into a logistical unit and moved to any train depot. It is recommended to move them to the train depot where there is greater demand for supplies.

- **The next picture below is of an independent logistical unit (LogR)** that also has engineering capability as well as mobile cranes and militia work squads in the unit (lavender area). It also has some motorcycle sections for recon purposes that can help keep the player from being surprised by the enemy. The unit has a lot of horse carts and wagons, with a few trucks for hauling supplies (yellow area). These devices work best on roads and can haul supplies off the roads (cross country) in clear terrain, but they do not go very fast in rough terrain and/or mountains. If the

player wants to haul supplies through the rough terrain and/or mountains, vehicles should be exchanged for devices such as human, mule, horse, and/or camel devices, which work well in that terrain. In the blue area you can see the commander of the unit, who is a decent combat commander due to high aggression and slightly below average land values, but has a low admin score, which should be higher for a logistical unit commander. The pink area shows that this unit needs a lot of supplies and some fuel. Since the unit is a port (Santander), there is fuel available but the high supply consumption due to all of the horse powered devices means that if supplies were to become a problem, I would swap the horse powered vehicles for trucks since fuel is readily available and trucks are obviously more efficient for supply distribution. *A good place for this unit would be on a larger base with a train unit near the combat area so the RR Logistical Units can bring supplies to the base for distribution and perform the engineering work needed.*



- **The next picture below is of a company sized Logistical Unit (LogR) for a brigade**. The rest of the brigade hasn't arrived yet so it can be used to support other units. In the yellow area are the devices to move supplies, in this case horse carts/wagons as there are no trucks in this unit. Note there is no fuel for this unit (no trucks, no fuel). *If a unit does require fuel and doesn't have it, it will only get 2 movement points per day*. The lavender area shows a militia work squad and a pontoon device used to ford rivers and streams. This unit also has a Mobile Ammo Depot that is also a supply device that is nice to have for artillery units that use a lot of ordinance to bombard. The blue area shows the commander, who would be a decent combat unit commander (aggression/land scores) that are higher than his admin score, which aids a LogR unit more. It might be a good idea to transfer him to a combat unit and replace him with a commander with a higher admin score. The pink area shows the unit's aggregate supply maximum (39 of 39 mostly due to horses' needs), supply need/day of 7.27, ammunition need of 2 and no fuel needed since this unit isn't motorized. As a supply unit, it has a very low assault value (AV) of 2 and shows the load cost to place troops, guns, vehicles and cargo on a ship. To invade the Balearic Islands or elsewhere you will need to bring along some logistical units.



- **Below is a loot depot <u>(PITEAS please explain here what a loot depot is or at least reference the page in the manual explaining it!)</u> that has been turned into a rather large logistical unit**. In the yellow area there are a large number of captured wagons, noted by the (F) after the quantity. There are also six captured 60mm Lafitte mortars that need repaired. Once they are repaired **<u>(PITEAS, explain here how they are repaired or again, reference the manual page)</u>** they can be removed to be better used in a combat unit. This unit came from a large surrender of enemy units and most of the other captured devices were removed by using the merge function with other units **<u>(PITEAS, again, reference the manual page on merging units)</u>**. The unit could also have been disbanded (PITEAS manual page please, something like "see page xxx of the manual"), and the devices would then go into the stockpiles and be available to other units. The blue area shows no commander has been assigned but should be for optimal unit efficiency The pink area shows the number of supplies that are carried (200) and how many used per day (44.40), both of which are somewhat high due to the large number of horses in the unit. It also shows there are no troops, but it does need space to load guns, vehicles and cargo.

- **Above is a logistical unit made from a "vehicle dump" created by removing vehicles and replacing them with mules so the unit can move faster in rough terrain**. **<u>(PITEAS you note that you put the vehicles back but I don't see any vehicles, just mules and wagons, which is confusing? Why put them back and where are they?)</u>** If units don't get enough supplies, disruption and fatigue will increase, the unit's movement will slow, and it will not be as effective in combat. Support squads can also move the supplies, but in this case mule teams were used. Horse and/or camel teams would work as well.

- **Think of the supply chain as a "Hub and Spoke" method**. RR Logistical units should ideally be placed in the major ports (where ships bring in supplies) and other major bases where they can move supplies to smaller train depots or retrieve them from smaller depots for use elsewhere. *These are the units that do the heavy lifting of the supplies*. Smaller logistical units (LogR) then move the supplies to other bases and/or units that are not at bases. Logistical units that are part of the larger units will haul supplies to units and send the devices (vehicles, horses, mules, etc.) back to bring more supplies to the unit. There is no graphical representation of these logistical convoys moving, but there are ways to interdict the movement of supplies as listed on page X of the user manual **(PITEAS put manual page here)**. Remember, you can merge captured devices into units **(PITEAS list manual page on how to do this).** Also, since artillery uses a lot of ammunition, it is a good idea to add more logistical support devices to these units. *It should also be noted that units in bases are automatically supplied with supplies available at the base without having to use the logistical devices in the unit.* These logistical devices can then be used to supply units not in bases or bases where supplies are needed.

Understanding Unit Selection & the Logistic Cap

- Select the unit and click on "Logistic Cap" (in green middle left side of unit card) to view details (see graphic below).

- The yellow line indicates the source of logistics. In this scenario, supplies come from Pina.

- The blue line reflects the transport capacity in tons per day that can be delivered by trucks, foot, and dual means. 4 points for trucks means 4 tons can be delivered per day.

- The gray line represents path difficulty. Each hex has a path point and the higher the path number, the more challenging it is for supplies to reach the unit.

- The red line shows the actual tonnage being delivered, which is cumulative. For example, only 3 tons are being delivered per day despite trucks being able to carry 4 tons. The formula is based on the difficulty of the path, in this case (Truck Points (4) x 24 (hours in a day)) / Path (30) = 3.2, rounded down to 3. In other words, the trucks are only making 3 trips a day, delivering 3 tons.

- To understand supply and demand management, if your demand for supplies is 2 tons and your delivery capacity is 3 tons, the unit will be adequately supplied. However, if supply drops and trucks deliver only 1 ton, you may have to adjust to an easier supply path. Consider moving units closer to a base or bringing logistic units nearer to facilitate delivery.

- I hope this helps clarify the logistics process for everyone.