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0. Introduction
The Battle of Gravellona Toce is a tactical wargame that aims to simulate the battle that took place December 13, 1944 in Gravellona Toce (VB) between the partisan forces and army units Italina Social Republic (RSI). The scale of the game is about 10 men to the point of value and strength of the shift is approximately 2 hours.

1. Playing Pieces.
In The Battle of Gravellona Toce, there are three types of tokens: Commands, Combat Unit and Information Counters.

1.1 Commands
Commands represent the officers in charge of Combat Unit; they cannot make attack but may be subject to attack; can participate in Melee only if accompanied by friendly Combat Unit, or if an enemy combat unit enters or is present in the hex where there is only one command opponent, it is eliminated directly.
They have a capacity of 4 movement points and have a Command Range of 10 hexagons, within which the friendly Combat Unit are in control (see 6).
In the event of elimination it will be create a supplementary command next to a friendly Combat Unit, which will have some limitations (Radius command of only 5 hexagons).

1.2 Combat units
The Combat Unit are grouped by operating units.
The Combat Units have a graphical representation of the type of military unit they represent (infantry, paratroopers, gunners, vehicles), a value of Strength, which indicates the effectiveness of the attack and melee, a distinctive in order to be identified to the Company or Battalion or Regiment, a symbol that represents the type of Target Attack (Infantry or Tanks).
They have a capacity of movement defined according to the type of military unit represented (see diagram combat units).
Units are printed on one side only and are defined by a background colour and printing according to the nationality to which they belong (White / Black for the fascists Republicans, Red / Black for the communist partisans, Green / Black for the partisans of justice and Liberty, Blue / Black for the partisans of inspiration monarchy; Orange / Black for partisans without political orientation).
A particular type of Combat Unit are the vehicles (see 11).
There are whole units standard (with the value of full strength, may vary according to nationality; in the Battle of Gravellona RSI value is 4 and for the partisan player is 3) and fractional units, with lower values of strength.

<table>
<thead>
<tr>
<th>Full</th>
<th>Fractional</th>
<th>Full</th>
<th>Fractional</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="Infantry.png" alt="Infantry" /> 4</td>
<td><img src="Vehicles.png" alt="Vehicles" /> 5</td>
<td><img src="Paratroopers.png" alt="Paratroopers" /> 4</td>
<td><img src="Artillery.png" alt="Artillery" /> 1</td>
</tr>
<tr>
<td><img src="MGs.png" alt="MGs" /> 4</td>
<td><img src="Support.png" alt="Support" /> 4</td>
<td><img src="Engineers.png" alt="Engineers" /> 4</td>
<td><img src="Command.png" alt="Command" /> 4</td>
</tr>
</tbody>
</table>

Whenever a unit loses a point from Strength, the same unit must be replaced with the correct value from the Force Pool; if not any, use more fractional units (without spending Action Points).

1.3 Informative Markers
Informative Markers are markers for the Movement, Attack, Damage, Out Of Control, Stop and Opportunity Attack.
The units which are stacked with are influenced by a die roll modifier indicated on the marker. Their use is explained in the rules.

1.4 How to start.
The partisan player puts the partisan units in the map; Republican Fascist player does the same; the time counter is placed on the 05.00. In the first round, the Initiative is for the partisan player; the level of the partisan player PA (Activation Points) is given by the value of a d6 +3; the level of the fascist Republican player PA is given by the value of a d6 +1. Place the fascist Republicans Reinforcements on the box at 11.00 am and 07.00 am in the time counter and the other reinforcements in the corresponding boxes (see 16).

2. Turn Sequence

The Battle of Gravelona is played in 12 rounds of 2 hours, from 05.00 on December 12, to 12.00 1944 December 13, 1944. Each turn has the following sequence:
1. Determining Activation Points and Initiative.
2. Verification of Command Range and reporting of Combat Unit Out of Command.;
3. Player who has the initiative (see 3) becomes Active (see 4) and chooses which Combat Unit activate and what action to perform (see 5), spending Activation Points required (see 3), or decides not to activate any unit, passing the turn.
Once the action has finished, the opponent player will become Active and will choose which Combat Unit activate and what action to perform, spending the Activation Points needed or decide not to activate any unit, passing the turn.
Any reinforcements can come into play (see 12.5).

It continues with this alternation until:

- Both players decide to go through (in this case, any unused Points activation are reported in the next round);
- A player has finished the activation points and the other decided to go through (in this case, any unused Points activation are reported in the next round);
- Both players finish the activation points;
If one of these events occurs, the round ends and you move on to step 4;
4. Administrative Phase: Victory Conditions are verified, any violations occurring at the edge of Stacking (see 10) are solved, all Information markers are withdrawn, the TURN marker advances along the counter of the track and all starts again from step 1 of the Sequence turn.

3. Activation Points (AP) and Initiative
Each player has a number of activation points, needed to perform the actions of the Combat Unit (see 5).
The PA are determined at the beginning of the Turn Sequence; each player adds up the total of the values of Force deployed in the map; the result is divided by the value of the whole unit standard of the nationality to which it belongs, as indicated in the scenario, then each player adds up the value of the PA-controlled targets.
The sum of the two values is the number of PA available for that turn, to which are also added to any PA remained from the previous round, for a maximum of 20 PA.
Note: until the arrival of the first reinforcements at 11.00, the fascist Republican player halves the total PA counted.
The player with the highest number of PA gets Initiative in the turn; in case of a tie, the Initiative will be the player who had just completed the turn.
The initiative is indicated by the flag of the counter TURN.

3.1 Value PA objectives
Each objective controlled (last unit that occupied) has a value of PA for the counting of them for each player (on the map in red Partisans; Fascist Republicans in black):
- Santa Maria 2 2
4. Player Active and Inactive

Each player during the round will become active and inactive and can then choose, when active, which Combat Unit activate and what action (see 5) to carry out, spending Activation Points required (see 3), or decides not to activate any unit, passing the turn (see 2).

5. Actions

The grid attached shows all the actions that can be undertaken by Combat Unit and their cost in Activation Points (PA). It is possible to take the same action to multiple Combat Units at the indicated cost, when grouped in the same hex (see 10).

The Actions are:
- Retreat in free hex (see 9.7)
- Opportunity Attack (see 8.7)
- Input reinforcements (see also 12.5)
- Fractioning Unit
- Movement (see 7)
- Creating Unity
- Melee if you are already in the same hex with your opponent (see 9)
- Attack (see 8)
- Move up to half of the PM and Assault
- Attack and Movement up to half of PM
- Move up to half of the PM and Attack
- Opportunity Assault (see 9.9)
- Build a bunker/trench
- Recover

The explanation of each action and its cost is shown in the Table.

6. Units in command

Each player must check whether their Combat Unit are in control compared to the distance to their Command unit, that is, if they are within 10 hexes of the same (or 5 in the case of supplementary command unit).

Otherwise, the unit will receive the Out of Command Marker; in this case, these units can perform some actions only (see 5), the cost doubled in PA for each Action.

To measure distance, count the hex occupied by the unit but not the command unit.

7. Terrain and Movement

The cost in movement points (MP) depends on the type of terrain; compare the Chart for the Terrain Effects (TEC) and specific terrains to each scenario. A unit that moves should still have enough movement points to enter the terrain in the hex; if it does not have enough, it cannot enter, except for units with a capacity of movement of 1, which can always move 1 hex ignoring the costs.

The Chart for the Terrain Effects (TEC) with the modifiers to the die roll for the attack can be found among the Tables, as well as the Chart of the ability of the Movement of Combat Unit.

8. Attack: type of fire and objective, results of Table of Attack

The Combat Units have a symbol that represents the type of Attack (Infantry, Tanks or Artillery) and a symbol that represents the type of Target Attack (Infantry or Vehicles); these are the data that are used together with the distance, to cross the data on Table Attack and verify whether or not the possibility of hitting the opponent, as well as the probability and intensity of the Attack.

8.1 Procedure

The units that want to make an attack must be within the firing range of their targets in order to make the attack itself.

Check the type of attack of the unit that intends to carry out the attack and the type of objective unit to attack.

Count hexes between the units (count the hex occupied by the objective but not the unit that shoots); the number of these hexagons must be equal to or less than that indicated in the
Attack Table, where it is indicated the firing range of all combat units.
Then spend the PA needed for Action Attack (or Opportunity Attack). Calculate any modifiers to the die roll, the algebraic sum of MAGNITUDE, WEAPONS, TERRAIN, DAMAGES, MARKERS and roll the d6, apply modifiers and see if it was rolled the lowest number that you have to roll in order to make a Morale test (MORAL) or to make lose a point value of Force (HIT) to the target. Apply the eventual result (MORAL or HIT) to the target.
After resolving the attack, the unit will receive an Attack marker (this for every attack made in the round); The marker will be removed during the next Administrative Phase.

In the case where there are more combat units objective of Attack in a hexagon, the result of the attack will be applied to the unit on top of the stack.

8.2 Attack and Opportunity Attack markers
These counters have no modifier to the die roll, but if the units during the same turn receive 3 markers Attack and / or Opportunity Attack, they can not make any further attacks on the turn (lack of ammunition), or perform any Assault or Melée as active unit.

8.3 Night Round:
During the night round (gray in the Turn Counter) the firing range of each type of attack is reduced by 2 (to a maximum of 1 hex for infantry, 3 for vehicles and artillery shoots at maximum 3).

Table 8.4 Attack
Table Attack is in the Tables, with all the modifiers to the die roll.

Attack Table Results

MORAL
The target unit must make a Morale test by rolling a d6 against the value of its Strength, applying as a modifier to the die roll any negative difference of magnitude.
If the result is equal to or less than the value of strength, the test is passed; otherwise, the unit becomes STOPPED (FERMA) and receives the appropriate marker.

Until next Administrative Phase or Recover Action (see 1.1), it can not move and will have a modifier to the die roll for each attack of -2.
The unit that undergoes two results of Stopped lose a point value of Force; so also in the case of further results in the same turn.

HIT:
The target loses a point value Strength and gets a Damage if it is a vehicle.

Die roll modifiers for weapons
Machine guns +2 against F
Mortars +1 against F, A and C.
Portable anti-tank weapons +2 against A at a distance of 1
Light Artillery: -1 against all
Heavy Artillery: +1 against all from a distance of 3 included.

8.5 Magnitude in Attack and Melée
The magnitude in the attack is the difference between the values of the unit which carries out the attack and the target unit. If the difference is equal to or greater than 3, the PF (Strength Point) lost are doubled, as well as any damage (see 9).

Magnitude in Melee is the total PF involved in Melee; up to a total of 5 PF, the results of Melee are as shown in Table; if the total PF involved is greater than 6, the PF lost are doubled, as well as any damage (see 9).

So in summary:
To calculate the final modifier to the Attack roll must be added algebraically:
MAGNITUDE (not if negative value, which is used only for the Test of Moral (see 8.4)), WEAPONS, TERRAIN, DAMAGES, MARKERS.

8.6 Line of sight
There must be a line of sight (LOS) clear of obstructions between the firing unit and target. The line of sight is blocked if it passes:
- Through a hex containing other combat units; LOS is not blocked by other combat units if the firing unit is in a hexagon at a higher elevation compared to the one containing the target;
- Through terrain hexes that blocks LOS, such as houses, slopes and hills; check the TEC and the specific rules of each scenario;
- Along the side of the hexagon between two hexagons that contain both ground that blocks the LOS;
- Or through hexes at a higher elevation than the target unit;
A line of sight can enter a hex with terrain that blocks it, but can not get through.

8.7 Opportunity Attack
A unit that moves can be attacked through any hex within the range of fire of any enemy units.
During the movement of a unit, the Inactive player must notify the Active player to stop the movement, in order to carry out the Attack of Opportunity, paying the PA required (see 5). This attack must be resolved before the unit enters into another hex. The player making the attack of opportunity can not wait to see where the target unit will end the movement of the first to announce his intention. It is not possible to carry on any opportunity attack on units that are in Melee or who have just entered into Melee. If the moving unit is hit, it must stop immediately and get a Movement marker. The unit that carried out the attack receive an Opportunity Attack marker and can still carry out attacks during the round, spending the PA needed to the Action.
In the case where there are more combat units objective of the Opportunity Attack in a hexagon, the result of the attack will be applied to the moving unit. In the case where there are more combat units in a hexagon, the result will be applied to the unit on top of the stack.

8.8 The Movement marker.
This marker indicates that a combat unit has completed an action for which he has used all or part of its movement points and therefore can not make any further actions that in turn provide for the Movement. The marker will be removed during the next Administrative Phase.

9. Assault and Melee
When a moving unit enters a hex occupied by an enemy unit as a result of action or contemplating Assault Combat (see 5), you have a Melèe, which is solved immediately.

9.1 Procedure
Each player calculates the total value of Melee (MCC) of the respective units by adding:
1 - the value of unit
2 - modifiers to the die roll (cumulative)
3 - the outcome of the roll of a dice.

9.2 Commands
If a Command unit is caught alone in an hex in Melèe is immediately eliminated and in this case the movement of the active unit is not interrupted.

9.3 Artillery
Artillery units carry on a normal Melee.

9.4 Results of Combat
Compare both MCC and apply the results:
1 - Same value: the active player retires in his starting hex;
2 - MCV greater than 1 or 2: the party with the lower MCV make a Morale test (see 8.4);
3 - MCV greater than 3 up to twice the adversary: the unit with the lower MCV make a Morale test (see 8.4) and receives a hit, losing a point value of force (and if Vehicle, also receives a Damage);
4 - The difference between MCV greater than twice: the party with the lower MCV is eliminated.

9.5 Magnitude:
Magnitude in Melee is the total PF involved in Melee; up to a total of 5 PF, the results of Melee are as shown in Table; if the total PF involved is greater than 6, the PF lost are doubled, as well as any damage.

9.6 Markers:
Each unit engaged in Melee receives an Attack marker, which indicates the consumption of ammunition in the action (see 8.2).

A combat units can not, however, get more than 3 Attack or Opportunity Attack markers; in the event it receives more than 3 markers, its points of strength value will drop to zero and it can not make any attacks (until the next Administrative Phase).

9.7 Withdrawal
If an unit or a stack decides to withdraw from a hexagon by choosing the Free Action Retreat (see 5), the active player will retreat into a hex of his choice, possibly undergoing Opportunity Attack.

9.8 Advanced:
Only after eliminating all enemy units in close combat, the unit of the active player, who still has movement points to use as per action taken, may continue to move, remaining subject to any opportunity attack or Melée.

9.9 Opportunity Assault
A unit that moves can be assaulted if moving in any hex adjacent to enemy units. During the movement of a unit, the player must notify the Inactive Active player to stop the movement, in order to make the Assault of Opportunity, paying the PA required (see 5). This attack must be resolved before the unit enters into another hex as a normal Melee (see 9). The player who makes the assault of opportunity can not wait to see where it will end the movement to announce his intention. It is not possible to carry on Opportunity Assault on units that are in Melee or which have just entered into Melee. If the moving unit is hit, it must stop immediately and get a Movement marker. The unit that carried out the assault receive a Movement marker and can still carry out attacks during the round, spending the PA needed to Action. In the case where there are more combat units objective of Opportunity Assault in a hexagon, the result of the assault will be applied to moving unit. In the case where there are more combat units in a hexagon, the result will be applied to the unit on top of the stack.

10. Stacking
The stacking limit is 8 points Strength value (no matter the type of units) per hex by nationality / player. This limit can not be exceeded at the end of their movement phase (or during Melée). Points of Strength in excess are eliminated during the Administrative Phase. The commands and informational markers do not count for the purposes of grouping. The units on the move or in retreat can freely enter into a hex already occupied by friendly units, but they cannot stop.

Remember, there is ONLY Melee or Attack only when its action is taken (and spent the PA needed). In the case where there are more combat units in a hexagon, the result will be applied to the unit on top of the stack.

11. Vehicles
The vehicles have the graphical representation of the type of military unit they represent (tanks, trucks, other vehicles), a value of Strength, which indicates the effectiveness of the attack and melee unit, a badge in order to be identified to the Company or Battalion or Regiment, a symbol that represents the type of Attack (Infantry, Tanks or Artillery) and a symbol that represents the type of Goal Attack (Infantry or Tanks). They have a capacity of movement defined according to the type of military unit represented (see 1.2).
On the drive vehicles there is also a value of the damage, which represents the strength and armour of the vehicle.

11.1 Damage
Damages represent the damage to the vehicle in case of attack; are represented by markers that have Information modifiers to the die roll to be applied to the vehicle in case of an attack towards the unit holding one of these markers.

Below the grid of damage counters:
1 Damage: +1 Attack by a C
2 Damage: +1 Attack by an F
+1 Attack by an ART
+2 Attack by a C
3 Damage +2 : Attack by an F
+2 Attack by an ART
+3 Attack by a C

In the case of two results STOPPED (see 8.4), the vehicles will lose a point from Strength and will also receive a Damage.

12. Special Units

12.1 German Unit
German units did not participate practically to action. After having lost two armored cars in the action of December 12, 1944 at Omegna the remained units garrisoned inside Gravellona, showing a willingness to surrender.
Therefore, the cost of PA to activate the German units from the fascist Republican player has tripled cost compared to the cost indicated in the rules (see 5), while the free action still have a cost of 2 AP.

12.2 Reinforcements
The fascist Republican player receives reinforcements around 11:00 am on December 13, 1944 and at 07:00 on December 14, 1944; see Order of Battle (see 17) for the list of units to be deployed.
The partisan player can receive reinforcements from the partisan brigades "Valtoce" and "Valdossola" starting at 13.00. To allow the entry of such units, the player must have occupied partisan objectives Santa Maria, Plant Furter and the Bridge on the River Strona.
See the Order of Battle (see 17) for the list of units to be deployed.

12.3 Artillery
The artillery unit fascist Republican can not move and can make only one attack per turn, which can also be of Opportunity. The artillery unit can not be split up voluntarily by the fascist Republican player.

12.4 Submachine guns
The fascist republican infantry units are armed with several machine guns, so they benefit from a modifier to the die roll by +1 for the attack against infantry targets (F).

12.5 Company OP
The company OP is equipped with portable anti-tank weapons and therefore benefits from a modifier to the die roll for the attack +2 against targets type A up to the maximum distance of 1 hex included.

12.6 Heavy Machine Guns
The Cinquanta partisan unit comes with heavy machine guns, therefore benefiting from a modifier to the die roll by +1 for the attack against targets of type F and C to the maximum distance of 1 hex included.

13. Victory Conditions
The partisan player receives Victory points (PV):
For each opponent eliminated PF: +2 PV
For each objective: 5 + PV
The fascist Republican player receives Victory Points (PV):
For each objective: + 7 PV
For each opponent eliminated PF: +1 PV
The player who has counted the most VPs wins.
14. Historical Background

Words of Aldo ANIASI (Ivo) on the occasion of the official celebration of 1994.

The Battle of Toce, lasted three days (12-15 September 1944) and fought with great fury by the patriots and their enemies (more than twenty fallen partisans, including a Georgian, a Greek and an Englishman and injured many others), was certainly one of the most exciting moments of the War of Liberation. It was attended by all groups of patriots of the Province of Novara and the Sesia Valley. For a little partisans, despite the inferiority of means and ammunition, failed to win the unitissimo cornerstone of the German defensive system. To avoid this, the German Command September 13, 1944 in Gravellona dislocated large forces with the order "Resist Gravellona at any cost." But that battle is not won, it was the dress rehearsal on April 25. The Patriots fell to Gravellona were the ones who freed Milan before the arrival of the Allies. So it remains for generations to come the memory of those days is gravellonesi and perennial glory to all those who fought in these days, the dead and the living.

15. Credits

Designer: Giovanni
Rules: Marco
Map and Units: Marco
Playtest: Lucrezia, Cristina, Giovanni
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16. Order of Battle:

Partisans (From Valstrona, Basso Cusio e Omegna):

Communist:
4 with value 2 Fanfulla
4 with value 2 Romolo
4 with value 2 Redi
1 vehicle

Without political orientation (orange)
2 Cinquanta (from Oltre Strona) (1 MGs with value 2 e 1 with value 2)

Giustizia e Libertà (green)
3 with value 2 Beltrami
1 with value 1 Valdossola (reinforcement, come from Ornavasso ore 13,00)

Monarchici (light blue)
1 with value 1 Valtoce (reinforcement, from Villadossola ore 13,00)

Fascist Repubblican:

IV company Venezia Giulia (divided into 5 platoons with 1 value in each objectives decided by the player and 1 command, at Comando GNR)
1 with value 1 Platoon I company Venezia Giulia in one objective
1 with value 2 Artillery at Scuole
1 with value 2 company OP at Sede GNR
1 with value 1 German platoon (D) at Stazione

Rinforzi:
II (1 with value 2 and 1 with value 1 MGs) company Venezia Giulia from Intra (ore 11,00)

2 with value 2 e 1 command froma X Mas (from Intra ore 07,00 don 14 Dicembre 1944)