
Laroche
HQ
Houffalize
HQ
HQ
Wiltz
Libramont
Neufchateau
Combined Arms
Operations
Series

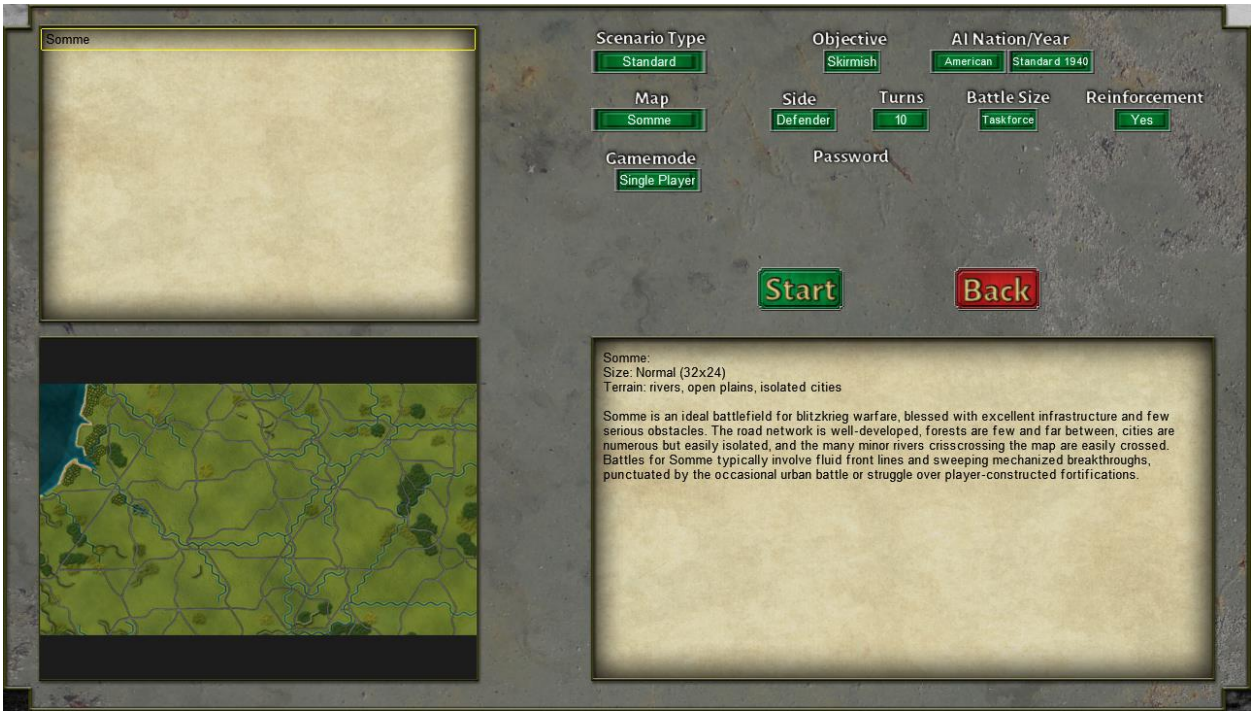
Table of Contents

This manual explains CAOS game mechanics in depth and we intend to expand and update it as features are adjusted, or added, and according to player request. If you would like to request a clarification, or greater attention to a specific mechanic, feel free to drop us a question on our discord server or Steam discussion forum. We also highly recommend players complete the in-game tutorial to familiarize themselves with the basics of CAOS, before consulting the manual. The tutorial is enabled by default the first time a player starts the game, and it can be re-enabled at any time from the options menu.

0: Scenario Selection and Types

This section provides an overview of scenario creation options, scenario types, and scenario-type or year specific modifiers to the requisition and replacement systems.

0.1. Scenario Creation Options:



0.1.1. Scenario Type:

***Standard*:** Standard scenarios allow for any combination of orders of battle, across nations, and years.

***Premade*:** Premade scenarios recreate historical battles such as the Battle of Gazala or Operation Crusader, or model hypothetical battles such as Operation Brimstone of Firebrand. Deployments, reinforcement schedules, and training levels, reflect the historical or hypothetical situation of each scenario.

0.1.2. Map:

The list of maps available in CAOS. Some maps are only available in Standard scenarios, and some game modes, such as invasion, are not playable on all maps.

0.1.3. Game Mode:

Selectable game-modes, only relevant when creating a multi-player scenario. Game modes include:

Singleplayer: The default option for all singleplayer scenarios.

Multiplayer: Head-to-head against another human opponent.

Hotseat: Local head-to-Head play against another human opponent, or against yourself for practice/testing purposes.

Co-op: Cooperative play with another human player against the AI.

0.1.4. Objectives:

Skirmish: Skirmish scenarios revolve around a single, randomly selected, objective, which starts the game under the defender's control. Whichever side controls the objective at the end of the game wins.

Meeting Engagement: Meeting Engagement scenarios revolve around a single, randomly selected, objective, which neither side controls at the start of the game. Whichever side controls the objective at the end of the game wins.

Attack: In Attack scenarios both sides fight for control of the entire map. The defender starts with control over most of the map, but the attacker enjoys a substantial force advantage. Whichever side controls 51%+ of victory points at the end of the game wins.

Invasion: In Invasion scenarios both sides fight for control of the entire map. The defender starts with control over of the entire map. The attacker enjoys a substantial force advantage but must stage an amphibious invasion to gain an initial foothold and then attempt to conquer the map. Whichever side controls 51%+ of victory points at the end of the game wins.

0.1.5. Battle Size:

Battle size determines the starting points available at the beginning of the scenario. Battle size does not affect requisition point income after the beginning of the game.

Division: A small engagement averaging one division per side.

Taskforce: A small engagement averaging two divisions per side. Recommended as a starting battle size for new players.

Corps: A medium engagement averaging 3-4 divisions per side.

Corps+: A large engagement averaging 6 divisions per side.

Army: A very large engagement averaging 9 or more divisions per side. Expect much longer turn resolution times than usual against AI opponents at army battle size.

0.1.6. Other Scenario Options:

Side: Select either attacker or defender. In Meeting Engagements "attacker" and "defender" titles are meaningless, see section 0.1.4.

Turns: Length of the scenario in turns. Available lengths vary according to scenario type from 10 to 45 turns.

AI Nation/Year: In singleplayer and co-op games the opposing AI's order of battle and year can be selected here.

Reinforcement: Enable or disable requisition cycles after the beginning of the game.

Password: Set a password for multiplayer games, purely optional.

0.2. Requisition and Replacements:

0.2.1. Requisition Rules by Scenario Type:

Skirmish Requisition: Requisition cycles occur every 3 turns. Defenders receive the equivalent of 10% of their original starting points as requisition points. Attackers receive 15%.

Meeting Engagement Requisition: Requisition cycles occur every 2 turns. Both sides receive requisition points according to a fixed schedule.

Attack Requisition: Requisition cycles occur every 3 turns. Attackers receive the equivalent of their current victory points as requisition points. Defenders receive the equivalent of half their current victory points.

Invasion Requisition: Requisition cycles occur every 3 turns. Attackers receive the equivalent of their current victory points as requisition points. Defenders receive the equivalent of half their current victory points.

0.2.2. Requisition Year Scaling:

Requisition points scale according to order of battle year. Requisition values in scenario configuration files or from manually calculated by adding up victory points may differ slightly from what players actually receive because of this. For example, a requisition value of 20 in 1940 would equal 23 in 1941 or 31.6 in 1944. See the table below for details.

Annual Requisition Scaling Factor Table:

Year	Scaling Factor
1939	0.81
1940	1
1941	1.15
1942	1.35
1943	1.47
1944	1.58
1945	1.58

0.2.3. Replacement Point Allocation:

Replacements are automatically allocated to each player's global replacement pool in premade scenarios. In standard scenarios replacements must be purchased (see section 1.1.5). Available replacements are listed by type, infantry, armor, and artillery, at the top of the screen at all times, as seen in the example above.

0.2.4. Replacement Year Scaling:

Replacement point costs scale per year according to the average requisition cost of typical weapon systems in each category, across all nations, multiplied by an automatic markup to cover the logistics of bringing replacements to the front. Consequently, replacement costs gradually increase across the war, especially in armor and infantry, while artillery starts high and changes little.

Annual Replacement Point Scaling Table:

Cost Per Replacement	1939	1940	1941	1942	1943	1944	1945
Infantry	0.06	0.07	0.08	0.12	0.13	0.16	0.16
Armor	0.16	0.2	0.28	0.3	0.35	0.4	0.44
Artillery	0.35	0.35	0.38	0.42	0.42	0.42	0.42

0.2.5. Automated Replacement Deployment:

Replacements are automatically drawn from the global replacement pool and deploy to units in the field according to their replacement priority, proximity to enemy forces, and rest status. See the table below for maximum replacement rates per turn.

Maximum Replacement Rates per Turn:

Unit Status	% Replaced
In Enemy ZoC	1%
No Enemy ZoC	2%
Rest Order	7%

Managing Replacement Priority: Replacement priority can be set on a per unit basis by changing the unit's replacement priority level on the unit detail sheet. See section 3.4.2. for more details.

1: In-Game User Interface

This section explores the most fundamental elements of the in-game interface, including the: requisition screen, deployment box, top/bottom bars, and orders menu. More specialized elements of the interface such as unit detail sheets and weapon cards are discussed in section 3.4/3.5. When in doubt, hovering your mouse over most interface elements and menus reveals a tool tip that explains the relevant menu, button, or game-mechanic.

Note: Blue or yellow letters on buttons or menus indicate hot keys. Memorizing hotkeys for common menus and orders can vastly speed up your turn.

1.1. Unit Pool/Requisition:

1.1.1. Purchasing Units:

The Unit Pool lists all available units in the order of battle for your selected nation and year. Available units are categorized on the left side of the display as infantry, mech., armor, artillery, HQ, air, and all. The yellow letters are hot keys. You may left-click, to select or de-select, a unit. Double-left clicking on a unit opens its detail sheet. Pressing the middle-mouse button de-selects all currently selected units.

Right-clicking on a headquarters selects that HQ and its subordinates as well. This greatly speeds up the requisition process.

1.1.2. Altering Training:

Raise or lower the training level of selected units with the green/red plus and minus buttons to the right side of the unit pool.

1.1.3. Changing Attachment:

Change the attachments of selected units by hovering over the attachment drop down to the right of the unit pool. You may need to use the middle mouse button to scroll down the attachment list on orders of battle with lots of headquarters. Headquarters units already purchased are listed at the top of the attachment list for easy access.

1.1.4. Purchasing Landing Markers and Reinforcement Points:

Purchase landing markers and reinforcement points using the relevant plus and minus buttons on the replacement box on the right side of the unit pool. The ship indicates landing markers. The anchor and parachute indicates reinforcement points. The price per marker or point is listed between the plus and minus buttons. Landing markers automatically come with 10 extra reinforcement points and appear in the deployment box after purchase. Your reinforcement point total is also listed at the bottom of the deployment box.

1.1.5. Purchasing Replacements:

Purchase replacements, by type, using the relevant plus and minus buttons on the replacement box to the bottom right of the unit pool. Crossed rifles indicate infantry. The Panther tank indicates armor, and the howitzer indicates artillery. The price per replacement point is listed in between the plus and minus buttons, and scales according to order of battle year. Your total replacement points are listed at the top of the screen, next to the intel report button.

Note: Holding shift while purchasing or refunding replacements buys 10 at a time.

1.1.6. Re-opening the Unit Pool:

If you exit the unit pool you may re-open it by clicking the Unit Pool button in the bottom right of the screen (or by pressing U), at any time during a Preturn.

1.2. Deployment Box:

Once purchased, units appear in the deployment box in the top left. Units may now be selected and dragged from the deployment box onto your starting hexes. Alternatively, you may move units around within the deployment box and form battlegroups before deploying them to the game map.

Note: The deployment box can be opened/closed by pressing the green Deploy button on the side of the box, or by pressing the Tab key.

1.3. Selecting Units/Issuing Orders:

1.3.1. Selecting Ground Units:

Double click on a unit or stack of units on the map or deployment box to select them. Selected units are highlighted in yellow on the bottom bar. Single left clicking a unit on the bottom bar selects/de-selects it.

1.3.2. Deploying Ground Units:

Select and drag units from the deployment box onto your color-coded deployment hexes; the blue player deploys on blue shaded hexes, while the red player deploys on red shaded hexes.

1.3.3. Issuing Orders:

To issue orders to an entire stack at once, right click the stack on the map and the order menu will pop up. To issue orders to individual units or small groups, left click to select the stack, then right click the unit(s) you wish to command on the bottom bar. Pressing the middle mouse button de-selects all units.

1.4. Top Bar:

The top bar contains overlays, reports, replay, and summaries, that help you understand the battle space situation and manage your forces.

1.4.1. Game Menu:

The game menu drop down in the top left allows you to return to main menu, save the game, open options, surrender, hand control over to an AI (only applicable during the first turn of a hotseat game), or exit the game completely.

1.4.2. Overlays:

Selectable Overlay: The selectable overlay, to the right of the game menu, may be toggled to show the map without units displayed, losses per hex, stacking value per hex, or aggregate cohesion per hex.

Facilities Overlay: The facilities overlay, to the right of the selectable overlay, displays objectives and the victory point value assigned to each. While the facilities overlay is active, objective hexes are marked by yellow stripes, and the victory point value of that objective appears over the hex as a yellow number. The facilities overlay also displays the ownership of capturable installations, such as cities, towns, and airfields, although ownership of most of these facilities is already indicated by the color of their name tag.

Names Overlay: The names overlay toggles town names on and off.

Zone of Control Overlay: The Zone of Control overlay displays friendly and enemy Zones of Control (ZoC). Friendly ZoC is marked in blue, enemy ZoC in red, and contested ZoC in blue and red stripes.

Line of Sight: The Line of Sight (LOS) overlay displays the current field of vision projected by your units. Most units possess a 1-hex line of sight, whereas reconnaissance capable units possess a 2-hex line of sight.

Supply Overlay: The supply overlay displays your current supply range, as modified by known enemy Zones of Control. See Supply (section 2.5) for more information about extending supply range.

Air Overlay: Displays current air control by side. Friendly airspace is marked in blue, enemy airspace in red, and contested airspace in blue and red stripes.

1.4.3. Combat List:

The Combat List button brings up a complete list and kills/losses for every combat, air strike, and artillery barrage the current turn. Clicking on any of these listings brings up a detailed combat report.

1.4.4. Replacement Pools:

Available replacement points are listed by type, infantry, armor, and artillery, in the middle of the top-bar.

1.4.5. Intel:

The Intel Report summarizes the current battlefield situation. The report lists: victory points per side, the main objective(s), the expected victory outcome if the scenario were to end this turn, casualties per side, strength replaced, air superiority status, and unit arrivals/withdrawals. Beyond this general situation report, several tabs at the bottom of the intel screen lead to additional reports detailing losses by type per side, an impulse by impulse summary of the last turn, requisition point schedule, and scenario briefing.

1.4.6. Replay:

Replay provides an impulse-by-impulse replay of the turn as it unfolded. Move forward and backward between impulses using the red and blue arrows that appear at the top of the screen when replay is activated. Replay is especially useful when you are learning CAOS and want to understand how actions unfolded.

1.4.7. Air Command:

The Air Command display allows you to manage air groups, change the type of air missions individual air groups perform, and change the overall mission focus on all your air groups. The Air Report, on the right

side of the Air Command display lists the relative air superiority strengths of both sides, and the number of air missions attacked and or lost per side.

Managing Air Groups: You may click on an air group on the Air Command to change its mission role for the ***next*** turn. Some aircraft are capable of multiple mission types, but an individual air group may only perform one mission type per turn. For instance, a P-40N can perform close air support missions, but it will not do so while tasked for air superiority. Each air group lists the number of missions it is currently conducting versus the optimal number it may conduct at maximum cohesion. Note, the P-40N in the screenshot below is providing 2 out of 4 air superiority missions, because of low cohesion.

Operational Air Focus: Operational Air Focus increases the number of missions from the selected category across all air groups by +25% but reduces the availability of other mission types. For instance, selecting Air Superiority Operational focus increases your total number of air superiority missions by 25%, but reduces your bombing, strikes, ground interdiction, and recon missions by -25%.

1.5. Bottom Bar:

1.5.1. Terrain Display:

Hover over the terrain image found at the bottom left of the screen to view terrain combat modifiers of the selected hex. Click and drag between hexes to view the effects of hex-side terrain such as rivers, crests, and minefields.

Terrain Movement Cost Display: The numbers next to the boot appearing below the terrain image show the infantry/mechanized movement cost of the current selected hex.

1.5.2. Unit Cards:

Each unit in the selected hex displays its own unit card at the bottom of the screen. Selected units are highlighted by yellow borders around their unit card. Single left click on a unit card to select/deselect it. Double left-click on a unit card to bring up that unit's detail sheet. Press the middle mouse button de-selects all unit cards.

Unit cards display critical information at a glance, including current orders, stacking value, name, name of higher command, strength, combat value, artillery stats, and anti-tank value. See section 3.4.1, for more information.

1.5.3. Group Button:

Pressing the group button merges selected units into a battlegroup, stacking limitations allowing. You may also form battlegroups by dragging unit cards on top of each other on the bottom bar. See section 3.3, for more information.

1.5.4. Air Button:

The air command manages air groups, but the air button allows you to place air missions on the map. Pressing the air button brings up the air orders menu. Available missions are shown in parentheses, for instance, in the screenshot below; we have 3 air bombardment and 2 air recon missions. Select the mission type you wish to conduct and place (target) it on the map.

Cancelling Air Missions: To cancel an air mission click the air button and then right-click the planned air mission (target) on the map to remove it.

2: Key Gameplay Concepts

2.1. Impulses:

CAOS uses 10 movement/combat impulses per turn, from impulse 0 to 9, reflecting different times of day, to simulate real time movement in a turn-based environment. Both sides issue orders and units then move and fight simultaneously. Consequently, enemy actions and friendly units blocking each other can delay or disrupt your plans. For instance, enemy air strikes might prevent artillery from supporting a critical breakthrough, or a crucial tank regiment might become stuck behind friendly infantry and fail to reach its target. Just as in real combat, plans in CAOS rarely unfold perfectly in practice. Good commanders adapt and improvise in response to unforeseen setbacks and unexpected triumphs.

2.2. Stacking:

Every hex has a 4 point stacking limit. To put this into perspective, the typical regiment is worth 2 stacking points, and battalions may vary from 0.5-1 stacking point depending on unit size and type, so the average hex can simultaneously host 2 regiments or between 4-8 battalions.

The 4 point stacking limit may only be exceeded under three circumstances. 1) During beginning of game deployment stacking limits are temporarily ignored. 2) Stacking value is increased to 6 while moving along roads during turn resolution. 3) During amphibious landings stacking value is increased to 5. If a hex is still over 4 stacking points at the end of the turn, excess units are automatically ejected into adjacent hexes.

2.3. Zone of Control:

Every unit stack with a value of 1 or more stacking points projects a zone of control (ZoC) into surrounding hexes. Under normal circumstances, units can move into and out of enemy Zone of Control hexes, but units cannot move between enemy Zone of Control hexes. See the images below for examples.

Enemy Zone of Control (marked in red) will block this move because we are attempting to move between two enemy ZoC hexes.

But this move will succeed because we are moving into enemy ZoC and then out into an open hex.

2.4. Negating Zone of Control:

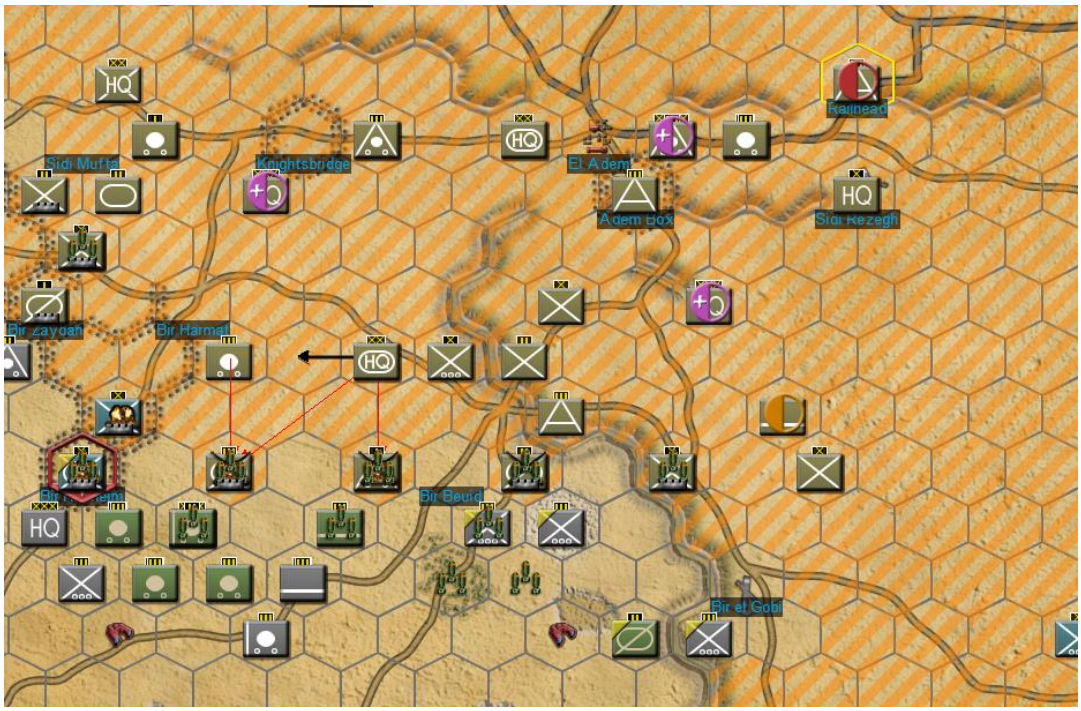
Zone of Control may be temporarily negated by pinning a unit stack by artillery, air attack, or ground combat. Artillery barrage, air strikes, and air bombardments that inflict casualties have a chance of suppressing the target stack's ZoC the impulse after the barrage, strike, or bombardment - the stronger the bombardment, the higher the odds of ZoC suppression. Likewise, ground combat suppresses ZoC during the impulse after a battle. Consequently, with proper planning and a little luck, you can suppress enemy ZoC and infiltrate through their front line if they do not keep reserves behind the lines to stop you. A clever commander can equally use ZoC suppression to create a window of opportunity for their own forces to escape an encirclement. See barrage fire missions, section 5.5.2, for more information.

2.5. Supply:

Maintaining line of supply and effectively use your mobile depots is essential to victory in CAOS. All combat units carry three full turns of supply, which they begin to consume when their connection to a supply grid is severed. Units that exhaust their local supply lose their Zone of Control, move at half speed, fight at half strength, and suffer cohesion damage every turn, until supply is restored.

2.5.1 Supply Grids:

Each supply source projects supply around itself, so long as it still has the supply to do so. The full extent of your supply grid can be viewed using the Supply Overlay. View an individual supply source's grid by clicking on it with the Supply Overlay active. Units within a supply grid do not consume their own 3-turn supply reserves.



Supply grids are marked by orange slashes when the Supply Overlay is active. Supply sources are marked by red half-circles, mobile depots by orange half-circles, and extenders by purple half-circles.

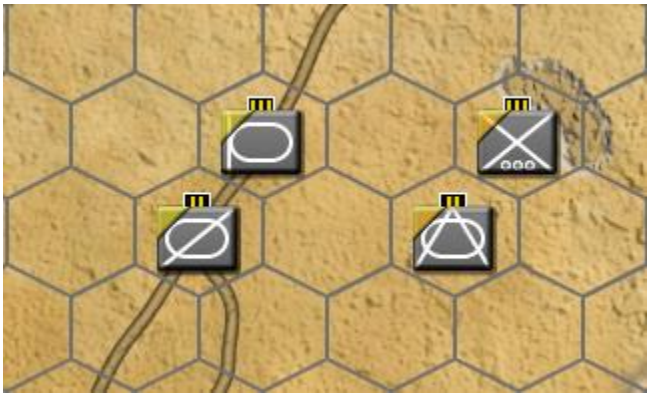
2.5.2. Supply Units:

Static Supply Sources: Static supply sources are inexhaustible sources of supply; they cannot be depleted or destroyed, and all other supply units must trace a line of supply back to a supply to avoid depleting their own supply reserves. Supply sources are marked with red half-circles when the supply overlay is active.

Mobile Depots*:* Mobile depots are the primary means to extend a supply grid beyond the range of static supply sources. However, mobile depots *must* be deployed before they project supply; the deploy/undeploy button is located on the depot's detail sheet (see image below). If a mobile depot is cut off from the supply grid of a static dump, it carries 5-turns of supply that it can share with any friendly units inside its own supply grid. Mobile depots are marked by orange half circles if they are deployed while the supply overlay is active.

Supply Extenders: Army and Corps HQs extend supply grids of sources and depots, but they do not independently project supply themselves. For example, fully an encircled corps HQs cannot resupply units trapped with it. Supply extenders are marked by purple half circles on the supply overlay.

2.5.3. Unit Supply Status Tags:



Low Supply Status Tags: Yellow triangle tags appear on the top-left corner of units possessing less than 100% supply.

Out of Supply Status Tags: Orange triangle tags appear on the top-left corner of units possessing no supply at all.

3: Ground Units

Ground units carry out the majority of fighting in CAOS. Ground units come in a wide variety of sizes and mission roles, from commando battalions to heavy artillery brigades and player-made battlegroups. This section details ground units from the largest regiments down to individual weapon statistics.

3.1. Units:

Most units in CAOS are composed of multiple attachments that move and fight as a single entity or be detached and employed independently. Units vary in size, the largest units, regiments, or brigades, consist of up to seven attachments, although regiments of 3-4 attachments are more common.

3.1.1. Unit Types and Movement:

All ground units in CAOS fall into one of two movement types: 1) Mechanized, encompassing all tracked and wheeled vehicles. 2) Infantry, including all leg infantry and cavalry units. Mechanized units are faster, but cannot enter mountains or marshes, or traverse escarpments, without the assistance of a road or trail. Old-fashioned infantry may be slow and be unglamorous, but it can enter any terrain and take the battle to the remotest locales.

Movements speeds are divided into 3 brackets:

1) Fast: 15 movement points per turn.
2) Medium: 12 movement points per turn.
3) Slow: 9 movement points per turn.

Units with higher movement values not only move farther per turn, but they also move faster impulse to impulse. However, not all mechanized units are equally mobile; heavy tanks, infantry tanks, and many pre-war tanks move at the medium rate, due to slow speed and or excessive fuel consumption.

3.2. Unit Types and Combat:

For the purposes of terrain combat modifiers and combined arms, all ground units fall into one of four unit types: armor, mechanized, infantry, and artillery. Memorizing these types is critical to understanding combined arms and terrain combat modifiers, see section 4.2.1.

Mixed-Type Units: Unit type is determined per attachment. Units with multiple attachments frequently include multiple unit types such as infantry, armor, and artillery, simultaneously. Each attachment is affected differently by modifiers such as combined arms and terrain.

3.3. Battlegroups:

Battlegroups are player created units, formed by combining attachments from other units together into custom configurations. Battlegroups can be formed by either clicking and dragging unit cards on top of each other on the bottom bar, or by selecting a group of units stacked together and pressing the “Group” button, at the bottom right.

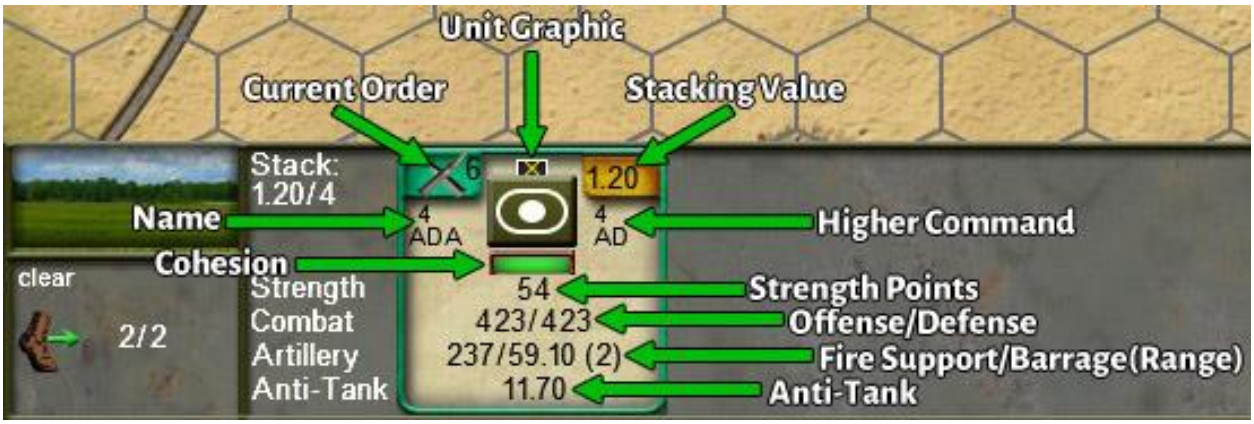
Battlegroup stacking rules: Up to 3 stacking points or seven units can be included in a Battlegroup. Note, a battlegroup formed from more than 2 stacking points of attachments will condense down to 2 stacking value once formed. This represents the improved tactical control of combining disparate units under a single command structure.

Battlegroups and divisional leadership bonuses: Units from separate divisions can be grouped together, but keep in mind they will lose their divisional leadership bonuses while battle grouped with units from other divisions.

3.4. Unit Cards and Unit Detail Sheets:

3.4.1. Unit Cards:

Unit cards are quick reference cards that appear at the bottom of the screen when a unit stack on the map is selected. Unit cards display the most important combat statistics of a unit, including current order, stacking value, abbreviated name, abbreviated name of higher command, graphic, approximate cohesion, strength, offensive/defensive combat value, fire support, barrage, artillery range, and anti-tank value.



Note: The cohesion bar is color coded. A green bar indicates 70%+ cohesion, yellow indicates 50-69%, and red indicates 49% or less cohesion.

3.4.2. Unit Detail Sheets:

Unit detail sheets report every relevant statistic for a combat unit. General details for the entire unit are listed at the top, specific details for each attachment are listed at the bottom.

General Details: In addition to reiterating all the information listed on a Unit Card, detail sheets also display movement value, entrenchment status, anti-aircraft (listed as low/medium/high altitude), whether the unit is receiving supply, and how many turns of spare supply it is carrying, and replacement priority status (explained below).

Managing Replacement Priority: Replacement priority can be set on a per unit basis clicking on the "Rep. Pri:" status under the Logistics header of the general details section. Replacement priority can be set to High, Medium, Low, and None. Units set to high priority will receive replacements first and units set to None receive none at all. By default units with higher morale enjoy higher replacement priority.

Battalion Details: Each of a unit's attachments has its own battalion card, listed on the lower half of the detail sheet, displaying the individual subordinate unit's name and combat statistics. Battalions can be detached from and re-attached to their parent unit using the appropriate buttons below the battalion card.

Note: Battalion cards are color coded according to their unit type. Blue = Armor, Cyan = Mechanized, Red = Infantry, Yellow = Artillery, Orange = Anti-Aircraft.

3.5. Weapon Cards:

View the individual statistics of any weapon system by clicking on its name on a battalion card. This opens the select weapon's, weapon card.

3.5.1. General Weapon Data:

Weapon cards display general information for the selected weapon, such as offense, defense, range, barrage, support, anti-air, and engineering. These numbers are displayed 'raw,' as they would appear unmodified by training or cohesion.

3.5.2. Special Weapon data*:*

Weapon cards also display special data such as armor, resilience, skirmish modifier, and breakdown rate.

Armor: The anti-tank value required to suppress this weapon. Only armored fighting vehicles such as tanks and halftracks have armor values.

Resilience*:* The percent chance that this weapon system will not be suppressed in armored combat or destroyed in close combat when a casualty roll is made against it in combat.

Strategy: Resilience does not reduce the total casualties you suffer from combat. If a weapon successfully makes its resilience check, then the same "kill roll" will be made against another friendly weapon involved in the battle, usually a weapon with lower resilience, such as infantry. When possible, pair armor with infantry to sluff casualties off valuable tanks onto more expendable riflemen.

Skirmish Mod*:* The Skirmish modifier indicates the percent bonus, or reduction, the weapon gains in skirmish combat. Reconnaissance units, commandos, and highly mobile vehicles such as armored cars, typically enjoy high skirmish modifiers. Whereas heavy armor suffers from severe skirmish reductions.

Breakdown: The percentage chance that this weapon will suffer a mechanical breakdown for every movement point expended. Mechanical breakdowns incur extra cohesion loss. Units with lower training levels, and units that have exhausted their supplies, suffer greater cohesion loss from breakdowns.

4: Combat

All combat in CAOS consists of two stages, 1) Armored Combat, where armored vehicles are suppressed, and then 2) Close Combat, where strength points are destroyed, and the outcome of the battle is decided. While basic offense, defense, and anti-tank values form the foundation of the combat system, numerous combat modifiers help shape the outcome of battle.

A detailed combat report can be accessed by either clicking on the battle marker on map (crossed rifles), or through the master combat list on the top bar. The combat report popup displays all crucial information from the battle, including odds, combat modifiers, and losses. The “Units,” “Combat,” and “Armor” buttons at the bottom open up additional screens allowing you to view the names of involved units, detailed losses in close combat, and armor suppressed in the armor combat phase.

4.1. Phases of Combat:

4.1.1. Armor Combat:

During the Armor Combat stage, both sides use their anti-tank value to suppress enemy armor. Suppressed vehicles only contribute half of their offense/defense value to the Close Combat stage. Through proper concentration of anti-tank capability, the threat of massed enemy armor can be significantly reduced.

Determining Armor Suppression: The higher the anti-tank value, the more enemy armor points will be suppressed, although anti-armor results vary. For instance, the same 57mm AT gun battalion will not always suppress precisely the same number of Panzer IV Hs if the same battle is run repeatedly.

Role of Armor and Resilience stats: More heavily armored vehicles take more effort to suppress. For instance, a suppressing a single Tiger I subtracts twice as much anti-tank value from the opponent's anti-tank total as a single Panzer IV H. Likewise, vehicles with a high Resilience stat can be very difficult to suppress. Typically, armored suppression falls disproportionately on lightly armored vehicles, such as armored cars, while heavily armored behemoths are far less likely to be suppressed. When heavily armored vehicles are suppressed, they disproportionately reduce the enemy's remaining AT pool.

Impact of Terrain on Armored Combat: Some terrain types such as forests and mountains increase anti-tank values for both attackers and defenders. Likewise, some structures such as cities or improved positions also increase defender anti-tank.

4.1.2. Close Combat:

After Armored Combat is resolved, Close Combat begins. Close Combat is the decisive stage of battle, where victory, defeat (or an inconclusive result), is decided. The ratio between the offensive combat value of the attacker versus the defensive combat value of the defender, called the odds, determines the losses suffered by both sides and the final outcome of battle.

Determining Casualties: Like traditional tabletop wargames, close combat casualties are determined proportionally according to the odds and randomized within reason. As in reality, combat in CAOS is inherently unpredictable; you might suffer 3% casualties in a 3 to 1 combat, and 6% casualties in the same 3 to 1 if you re-run the turn.

Role of Resilience: As mentioned in the Weapon Cards section (see section 3.5), weapon systems with Resilience have a percentage chance to ignore kill rolls made against them during casualty assignment, and instead pass the loss on to a unit with lower resilience.

Overrun Attacks: If the odds in close combat are 15 to 1 or greater in the attacker's favor, the defending force is immediately destroyed, without incurring casualties or movement cost on the attacker.

4.2. Combat Modifiers:

4.2.1. Combined Arms:

Combined Arms significantly increases offensive and defensive combat value during the Close Combat stage. Combined Arms is frequently the single most powerful force multiplier available, and players should attempt to gain combined arms bonuses as often as possible.

4.2.2. Combined Arms Levels:

Combined arms escalates in intensity depending on force composition, up to a +50% bonus. Achieving the most basic level of combined arms requires both infantry and armor to be involved on the same side of a combat. Adding artillery and air support increases this bonus further.

Infantry + Armor + Artillery + Air Support = +50%

Infantry + Armor + Air Support = 30%

Infantry + Armor + Artillery = +30%

Infantry + Armor = 15%

Minimum Infantry/Mech Quantity for Combined Arms: At least 15% or 30 strength points of a force present in a battle must be some form of infantry or mechanized to fulfil the infantry requirement of combined arms.

Minimum Armor Quantity for Combined Arms: At least 15% or 30 strength points of a force present in a battle must be some form of armor to fulfil the armor requirement of combined arms.

Special Considerations for Artillery in Combined Arms: Only artillery units that have a range value *and* are part of a battalion that is type artillery, fulfil the combined arms requirement. Despite being type artillery, anti-tank guns that do not have a range value do not fulfil the artillery requirement for combined arms. Likewise, artillery (usually mortars) integrated inside infantry or armored battalions do not count for combined arms.

Combined Arms Armor Negation: Suppressing over 50% of a side's armor in a combat reduces their armor contribution to the combined arms modifier proportionally. This reduction cannot exceed the contribution of armor to the combined arms modifier (a maximum of 15%). To use an extreme example, in a combat where the attacker possesses a base 30% combined arms modifier from employing Infantry, Armor, and Artillery, but suffers 100% armor suppression then they will only receive a 15% combined arms bonus.

4.2.3. Leadership Bonus:

Units that share the same parent (higher command), for example, two regiments of the same division, gain a +20% close combat bonus from leadership when fighting together in combat.

4.2.4. Encirclement Combat Penalty:

When attacked from multiple directions defending forces suffer a -10% encirclement combat modifier for each hexside the enemy is attacking through.

4.2.5. Armor Superiority:

If the defender cannot disable at least 20% of the attacker's armor value in Armored Combat, then the attacker gains an Armor Superiority bonus. The Armor Superiority reduces defender combat value from -50% to -10%, depending on the terrain and aggregate morale level of the defender. Higher morale units, or units in terrain hostile to tanks suffer lower Armor Superiority penalties.

4.2.6. Supply:

As mentioned in section 2.5, units that have exhausted their supply suffer a -50% combat penalty.

4.3. Terrain

Terrain impact unit types in different ways. For example, Light Forest provides a +15% defensive bonus to infantry, but it also incurs a -25% defensive penalty to armor. Check terrain modifiers on the bottom bar carefully when planning future combats.

4.4. Role of Fire Support:

Artillery Fire Support and Air Support are added to combat value *separately* from combat modifiers. Thus, fire/air support is never arbitrarily more effective because of a combined arms modifier or reduced because of encirclement.

4.5. Retreat:

Both attacking and defending units may be forced to retreat as a result of combat. The more unfavorable the odds, the higher the chance of retreat. When a combat result forces a retreat, one randomly selected unit immediately retreats, and every other unit on the retreating side individually rolls a retreat check. Units with higher stacking values, and higher aggregate training levels are less likely to retreat.

4.5.1. Inability to Retreat and Excess Losses:

Units that cannot retreat for any reason automatically lose 15% of their total strength. Common causes of inability to retreat include: 1) being surrounded by enemy/contested Zones of Control, 2) fully-stacked friendly hexes blocking retreat, 3) impassable terrain.

5: Orders

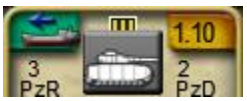
5.1. Combat/Move Orders:

5.1.1. March:

March is the basic movement/combat order. Marching units engage any enemy stacks in their path if the odds are 1 to 1 or better. March combats are typically low-intensity, with relatively few losses per battle, but they can be used to devastating effect to punch through enemy lines or crush encircled units. Under optimal conditions, a marching unit can initiate up to nine combats in a single turn. March orders are marked by a light-red movement line on the map.

Strategy: Use March orders to advance to contact, probe for weaknesses in enemy forces, or annihilate encircled enemies by hitting them with many march orders in the hopes of rolling retreats.

5.2.2. Defensive March:



This is a variant of the March order where units will only engage enemies in their path if the odds are 10 to 1 or better. Defensive March orders are marked by a black movement line on the map.

Strategy: Use Defensive March when you do not want to risk unplanned combat.

5.2.3. Force March:

Force march moves further than normal march orders, but it can only move between road hexes and cannot initiate combat. Force marching units take extra losses from enemy air interdiction, bombing, and artillery, and they become disrupted, lowering their combat value by 50% for the rest of turn resolution if they are attacked. Force March orders are marked by a yellow movement line on the map.

Strategy: Use Force March to move units rapidly around your rear area when you enjoy air superiority, and you do not fear enemy ambushes.

5.2.4. Attack:

The primary high-intensity combat order. Units conducting an Attack order engage adjacent enemy units in a 3-hex arc when they reach the target hex, on the designated impulse, and gain a +20% combat bonus. Attack incurs much higher casualties on both sides but is far more likely to force the defender to retreat, provided the odds high enough. Enroute to target, Attacking units engage enemy stacks like normal March orders. Attack orders are marked by a dark-red movement line on the map.

Strategy: Use Attack orders to breakthrough enemy front lines to create gaps for follow-on forces to exploit.

5.2.5. Skirmish:

Skirmishing units harass any enemy units that come adjacent to them during turn resolution. Units engaged by a skirmish order may take casualties, but they also suffer from a +1 terrain cost on their next move. Each weapon system has its own skirmish modifier, which modifies combat and anti-tank value during skirmish combat. For example, fast M18 Hellcat tank destroyers enjoy a significant skirmish combat bonus, while slow King Tigers suffer a severe penalty. Skirmish modifiers can be viewed on a per weapon system basis on the weapon card.

Units conducting skirmish orders do not have to move, but if they do they engage enemy units along their path if the odds are 1 to 1 or better, in addition to their skirmish combats. While involved in non-skirmish combats, units with a skirmish order suffer a -20% combat value/anti-tank penalty. Skirmish orders are marked by a green movement line on the map.

Strategy: Use units that have high skirmish modifiers to harass enemies by inflicting small amounts of damage and wasting their movement points. In cases of extreme firepower disparity, the Skirmish order can be used to annihilate weak enemy units adjacent to their movement path.

5.2.6. Reserve:

An order to support all adjacent friendly units. Units in Reserve contribute their combined arms modifier plus 50% of their combat and anti-tank value to *all* adjacent friendly units during turn resolution. However, Reserve units can also suffer casualties and cohesion loss in any combat they become involved in, and if they are directly engaged themselves then they suffer a -50% combat penalty. Units conducting a Reserve order can move, although they do not have to. Reserve orders are marked by a purple movement line on the map.

Strategy: Reserve is a great way to help units stuck behind the front line because of stacking limits contribute to combat. Armored units in Reserve right behind the front line are a great way to provide combined arms to multiple friendly stacks. However, be careful, units can quickly become exhausted (or destroyed) if they are dragged into too many combats while in Reserve.

5.3. Defensive Orders:

5.3.1. Reinforce:

This order targets an adjacent friendly unit to Reinforce if that unit is engaged, provided stacking limits and Zone of Control will allow it. Reinforcing units will move into the target hex the impulse after the target unit is attacked. If you expect part of a front line stack will retreat during turn resolution, Reinforcements can relieve the remaining defenders before the enemy can mount another attack. Additionally, through clever use of bonus road movement rules, Reinforce can be used to temporarily over-stack a hex.

Strategy: Use Reinforcement orders to plug holes in your line before they happen. Reinforce is a niche order, but when used properly it can mean the difference between containing a breakthrough and having a crucial strongpoint overrun.

5.3.2. Hold and Defend:

A basic defensive combat bonus. Units in Hold and Defend gain a +10% combat and anti-tank bonus per turn, up to a maximum of +20%. This bonus lasts until the unit leaves the hex.

5.4. Ancillary Orders:

5.4.1. Rest:

Resting units regain cohesion and absorb replacements at an accelerated rate, but they lose their Zone of Control, and suffer a -50% combat penalty if attacked. Resting units absorb upwards of 7% of total strength per turn as replacements, provided sufficient replacement points of the appropriate type are available.

Strategy: Whenever possible pull exhausted or damaged units out of the front line and rest them for a few turns to regenerate cohesion and restore their fighting capabilities.

5.4.2. Set Rally point:

Designates the targeted hex as the preferred retreat destination for the selected unit. Zone of Control and stacking rules allowing, units will try to retreat into or toward their rally point. A unit's current rally

point is marked by a red flag while the unit is selected. Once set a rally point persists until a new rally point is set.

Strategy: Rally point is a niche and relatively seldom used order, but it can be highly valuable for micromanaging the direction of retreat for high value units. Or for instance, to ensure infantry retreats into favorable terrain like mountains where armor cannot pursue it.

5.5. Fire Mission Orders:

Fire missions are artillery specific orders that allow your big guns to support friendly units or bombard enemies from afar. Fire missions also give units a chance to move while conducting their fire missions, although the artillery fire movement rate is limited for non-self-propelled guns.

5.5.1. Fire Support:

Target a specific friendly unit to support throughout turn resolution. As long as the artillery unit remains in range of the targeted friendly, it will provide fire support for *every* combat the target is directly involved in during the turn. However, the fire supporting artillery will suffer cohesion loss for every individual battle it assists. Artillery fire support satisfies the artillery component of combined arms.

Strategy: Fire support is a great way to strengthen your forces in any battle, defensive or offensive, from afar. For many nations it simply is not advisable to risk valuable artillery in the front line, so fire support offers a relatively safe method to provide the artillery component of combined arms to frontline forces.

Note, providing fire support to a unit conducting a Reserve order will not pass fire support to units assisted by the Reserving unit.

5.5.2. Barrage:

Target a specific hex, preferred target unit type, and impulse, to rain high-explosive hell on. For example, if you target an enemy stack for an impulse 7 barrage, targeting Armor, then your artillery will fire at that hex on impulse 7, and inflict extra damage to armor in that hex. If the selected target type is not present when the barrage occurs, then another preferred target will be selected randomly.

Barrage Strength and collateral damage: Barrages against the same hex, impulse, and target type, combine their barrage value. The greater the value, the higher the odds of damage to both the targeted unit type, and the higher the odds of collateral damage against other units in the same hex. Note, some terrains and structures reduce the efficiency of barrage, check the terrain display in the bottom left for details.

Pinning Targets: Units that suffer casualties from barrage have a chance to become pinned, losing their ability to assist adjacent friendly units defending against attack orders during the barrage impulse, and losing their movement and Zone of Control during the *next impulse.*

Strategy: When possible, concentrate your barrages on a few specific targets to inflict maximum casualties. With powerful barrages, and a little luck, artillery can negate enemy zone of control long enough to allow your forces to infiltrate and encircle enemy forces, or even bypass the front line entirely.

5.5.3. Counter-Battery:

Counter-battery is functionally identical to barrage, except it specializes in destroying artillery and yields less collateral damage to non-artillery units in the target hex. Artillery pinned by counter-battery cannot conduct fire missions during the barrage impulse, and lose their movement and Zone of Control during the *next impulse.*

Strategy: Counter-battery can damage and even destroy artillery units, but its greatest strength is the ability to pin hostile artillery. For example, if you are confident that a specific enemy artillery unit is the only source of the artillery component of combined arms for a sector of the front, try to silence it with counter-battery the impulse before your ground forces launch a major assault.

5.6. Engineering Orders:

Engineering orders include a wide range of options to create or bypass obstacles, ranging from destroying bridges to laying minefields. Building and destroying obstacles is handled by construction engineering, the more construction points you have devoted to a task, the faster it will be completed.

Combat engineering is used strictly for destroying or suppressing fortifications in battle and is discussed below in section 5.6.1.

5.6.1. Improve Position:

Builds a battlefield fortification. Improved positions impede attackers, reduce the effect of enemy bombing/barrage, and provide defensive bonuses to attackers.

Combat Engineering: Improved positions can be suppressed or destroyed by enemy combat engineers in close combat. If an improved position is suppressed in close combat it does not provide combat benefits to the defender during that battle. Destroyed Improved Positions are removed from the map permanently.

5.6.2. Bridge:

Build a temporary bridge across any river, major or minor. Infantry can cross a temporary bridge while it is under construction, but mechanized and armored units must wait until the bridge is complete, a full turn later. This temporary bridge will only remain in place as long as a friendly engineer unit is adjacent to maintain it at the end of each turn.

Strategy: Use temporary bridges to create new crossing points on major rivers, or to make passage across minor rivers easier. Because infantry can cross temporary bridges immediately, it is often wise to throw a regiment of infantry across while the bridge is under construction to secure a foothold before your opponent can respond. But be careful, the enemy can cross your temporary bridges too.

5.6.3. Destroy Bridge:

Wire any adjacent bridge for detonation. Provided your engineers are not interrupted, the bridge will be destroyed on impulse 9.

Strategy: Consider destroying excess bridges that you do not believe you will need to use to force your opponent to waste time repairing them, or to funnel them toward stronger parts of your line.

5.6.4. Repair (bridge):

Repair a destroyed permanent bridge. Like temporary bridges, infantry can cross a repaired bridge the same turn repairs begin, but mechanized and armored units must wait a full turn.

5.6.5. Lay Minefield:

Lay a minefield to slow down enemy forces. Minefields slightly increase the movement cost of a hex-side to friendly forces (+1 move cost), and significantly increase it for the enemy (+7 move cost). Additionally, minefields increase defense for all unit types by +10%.

Strategy: Use minefields to delay your opponent's advance and strengthen your defensive positions. When combined with other terrain features such as mountains and rivers, minefields can make a hex-side nearly impassable to the enemy.

5.6.6. Breach Minefield:

Breaching an enemy minefield reduces the movement penalty from +9 to +1. Breaching minefields is a quicker, but less effective alternative to completely clearing them.

5.6.7. Clear Minefield:

Completely removes a friendly or enemy minefield. Clearing minefields is a time-consuming process, always consider whether your engineer's talents would be better spent elsewhere.

5.7. Invasion Orders:

Invasion orders are special movement/combat orders that can only be issued to units in the deployment box. In Invasion scenarios, invasion orders are the *only* means for the attacking player to place units on the battlefield. For additional information on the mechanics of invasion orders, see section 8.

5.7.1. Paratroop Drops

Paratroop drops allows paratroop capable units to land on any hex, terrain allowing, inside friendly airspace (see section 7.1.1). Paratroopers hit the ground on impulse 0 of turn resolution, but they also suffer from drop casualties and disorganization due to the confusion of large-scale airborne drop.

Strategy: Use paratroop drops to trap enemies, seize key objectives ahead of your frontline, or insert raiding forces to threaten enemy supply depots or other soft rear-area targets.

5.7.2. Amphibious Invasions

Placing Landing Markers and Selecting Invasion Beaches: Landing markers are unique units used by attacking players in invasion scenarios to designate amphibious invasion zones. After purchasing a landing marker (see section 1.1.4.), your landing marker(s) will appear in the deployment box, right-click a landing marker and choose the 'Select Invasion Zone' order to begin planning an invasion. Landable beach hexes will be highlighted blue; left-click a highlighted beach to designate the center-point of your

invasion, and then select up to seven more beaches, within six hexes of the center-point, as additional invasion beaches. Creating a landing zone consumes the landing marker.

Above: Beach selection after placing a landing marker, note available beaches are highlighted blue.

After invasion beaches are selected, right-click normal ground units and order them to land on the designated beaches. Both amphibious landing orders are identical when they hit the beach, but differ in their rules of engagement after leaving the landing zone.

Amphibious Assaults:

Amphibious Assaults relentlessly attack the beach they land on without regard for odds until they either seize the beach or the turn ends. Units conducting Amphibious Assaults gain naval barrage and fire support modifiers while fighting to seize the beachhead. See section 8.2 for a detailed discussion of amphibious combat's special rules.

After leaving the landing zone units conducting an amphibious assault order behave like they are executing a normal March and engage any enemies in their path if the odds are 1 to 1 or better.

Amphibious Landing:

Amphibious Landings relentlessly attack the beach they land on without regard for odds until they either seize the beach or the turn ends. Units conducting Amphibious Landings gain naval barrage and fire support modifiers while fighting to seize the beachhead. See section 8.2 for a detailed discussion of amphibious combat's special rules.

After leaving the landing zone units conducting an Amphibious Landing order behave like they are executing a normal Defensive March and engage any enemies in their path if the odds are 10 to 1 or better.

6: Special Unit Rules

6.1. Shock Troops:

German SS and Soviet Guards units receive powerful, but self-destructive, fanatic and shock combat modifiers.

Soviet Guards and the German SS are visually distinguished by their distinct graphical styles.

6.1.1. Fanatic Units:

Fanatic units gain a +40% close combat modifier, but suffer 20% higher casualties, when conducting Attack and Hold and Defend orders. All non-artillery units from SS panzer/panzergrenadier divisions, as well as independent SS armored units, gain fanatic combat modifiers.

6.1.2. Shock Units:

Shock units gain a +25% close combat modifier, but suffer 12% higher casualties, when conducting Attack and Hold and Defend orders. All non-artillery Soviet guards units, and all non-artillery SS infantry units gain shock combat modifiers.

6.2. Mountain troops move bonuses:

Mountain troops gain a 2 point cost reduction to move through broken, mountain, and escarpment terrain types. Consequently, mountaineers move through broken terrain like it is open plains and mountains like they are normal broken terrain.

6.3. Commando/Paratrooper move bonuses:

Commandos and Paratroopers gain a 2 point cost reduction to move through all terrain types. Consequently, commandos and paratroopers move through most terrain types like open plains.

6.4. Self-propelled artillery, fire mission movement bonus:

Self-propelled artillery does not suffer any fire mission movement range reduction.

6.5. National Artillery Fire Support Restrictions:

To represent historical artillery doctrines, or communication equipment shortages, Soviet, Italian, and French heavy artillery units cannot conduct fire support fire missions. The heavy artillery of these nations are still perfectly capable of barrage and counter-battery fire missions.

6.6. Unsupported Artillery Combat Penalties:

If artillery becomes involved in close combat without support from infantry or armor, it suffers a -50% combat, barrage, and fire support penalty for the rest of the turn.

6.7. Commando Amphibious Landings:

Commandos belonging to an invading player can land on any beach inside friendly or contest air space, without the need for a landing marker in invasion scenarios. Commando landings still consume reinforcement points to land.

6.8. Paratrooper Drop Casualties and Trickle-back:

Paratroop units are divided into three sub-types, paratroopers, glider, and para-commandos. These sub-types are identical except for the casualties they suffer when paradropped and their casualty trickle-after a paradrop.

6.8.1. Drop Casualties:

The percentage of the total unit lost as casualties during a paratroop drop. Keep in mind that drop casualties also inflict cohesion damage so the combat value loss after drop can be much higher than expected. Paratroop units are very vulnerable to counter-attack immediately after landing if they are not supported.

6.8.2. Drop Casualty Trickle-back:

The percentage of total drop casualties that will be automatically recovered in the 3 turns following a paratroop drop.

6.8.3. Paratrooper Sub-types:

In general paratroopers suffer high average casualties on drop but enjoy higher trickle-back. Glider-borne have a lower minimum drop casualty level, but a higher max casualties, and lower trickle-back. Para-commandos boast very low casualties and high trickle-back, but are also incredibly rare and few orders of battle even possess a single unit of para-commandos.

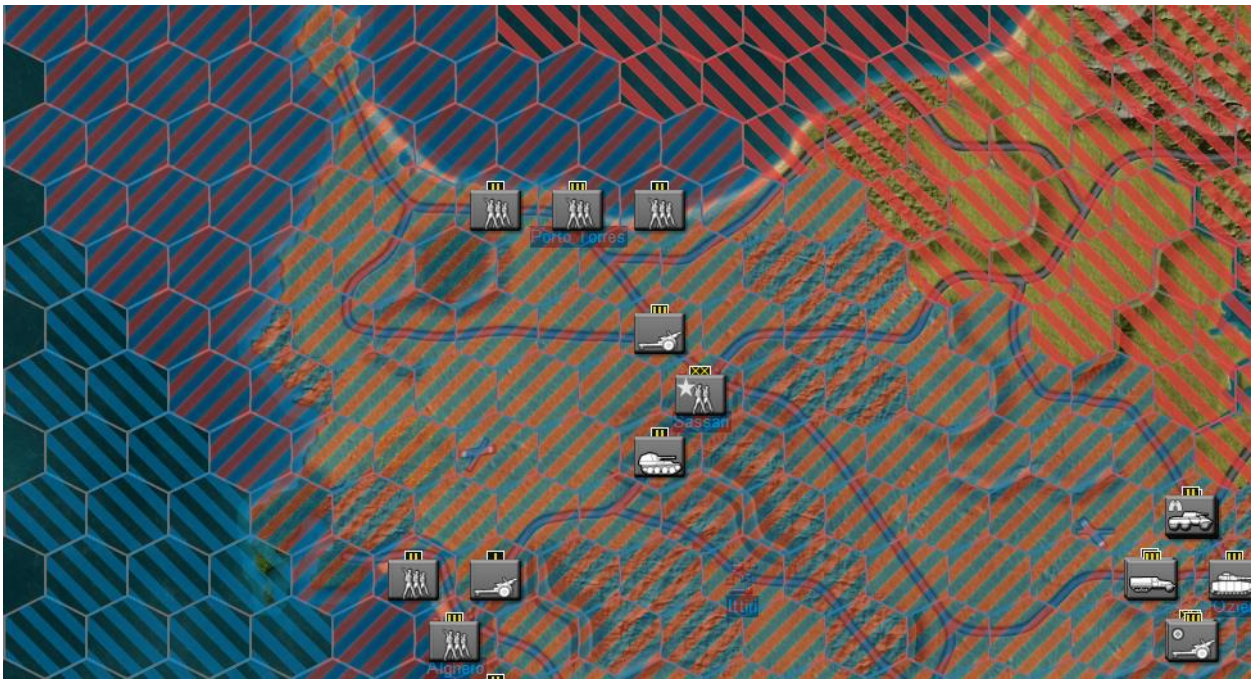
Paratroop Drop Casualties/Trickle-back Table:

Nation	1940-1943		1944/1945	
	Drop Casualties	*Trickle-back*	*Drop Casualties*	*Trickle-back*
USA/UK				
Paratroopers:	30-40%	40-60%	25-35%	50-70%
Glider:	10-60%	30-50%	10-50%	30-50%
Para-Commando:	5-20%	70-90%	5-20%	70-90%
Germany/Italy				
Paratroopers:	30-45%	30-60%	30-40%	40-60%
Glider:	10-60%	30-50%	10-50%	30-50%
Para-Commando:	5-20%	70-90%	5-20%	70-90%
Soviet Union				
Paratroopers:	30-45%	30-60%	30-45%	30-60%
Glider:	10-60%	30-50%	10-60%	30-50%
France				
Para-Commando:	5-20%	70-90%	5-20%	70-90%

7: Air Units

7.1. Air Zone

Each player's air zone originates from an off-map source and extends over the battlefield based on their air superiority strength relative to the enemy (see section 7.2.2). Controlling airfields on the battlefield further extends the reach of your air superiority squadrons, potentially allowing a smaller air force to outcompete a larger one by controlling airfields closer to the frontline. Air Zones are color-coded by side in the air overlay, blue hexes are BluFor airspace, red hexes are RedFor airspace, hexes that are both red and blue are contested; see the example below.



7.1.1. Friendly Airspace Exclusive Effects:

Amphibious Landings: Amphibious landings can only be initiated within friendly airspace. Note that if you make a successful landing and then your opponent gains air control over the beach, you will not be able to land additional reinforcements until air control over the hex is contested or better. See section 8.2. for more information on amphibious landings.

Paradrops: Paratroop drops can only target hexes inside friendly airspace. If you want to drop behind enemy lines bring enough fighters to push the enemy's air zone back.

Reduced Effect of Enemy Air Missions: The effect of enemy air support, strike, and bombing missions inside your airspace is reduced.

7.1.2. Friendly and Contested Airspace

Commando landings: Commando units can conduct amphibious landings in either friendly or contested airspace.

7.2. Air Superiority:

Controlling air superiority allows you to disrupt enemy air missions, protect your own, and expand your air zone. Air groups conducting air superiority missions battle for control of the skies, while all other squadrons carry out more specialized missions such as air bombardment, strike, air support, ground interdiction, and recon.

7.2.1. Determining Total Air Superiority:

Each air group tasked with air superiority calculates its air combat strength as: (air weapon stat*morale*number of air superiority missions*cohesion) every turn. The air combat strength of every air group tasked with air superiority is then summed to determine a side's total air combat value, and compared against the enemy. The greater your air superiority advantage over the enemy, the more hostile air missions will be attacked or lost, fewer of your missions will be attacked or lost, and the larger your air zone will be over the battlefield.

Note: Unlike other air missions, air superiority missions are automatically calculated, they are not targeted specific hexes.

7.2.2. Determining Hex-by-Hex Air Superiority

Total air superiority value radiates across the battlefield from your off-map airpower source and on-map airfields. Hexes where you possess a 70% advantage over enemy air superiority strength fall into your air zone. Any hex wherein neither side possesses a 70% advantage are considered contested zones.

Airfields: Airfields grant a +15% air superiority bonus within 6 hexes of the airfield. This bonus stacks so multiple overlapping airfields significantly improve local air superiority projection.

7.2.3. Air Missions Attacked:

Air missions that are attacked suffer cohesion loss mitigated by their air weapon stat, but they still provide air missions.

7.2.4. Air Missions Lost

Air missions that are lost suffer high cohesion loss, mitigated by their air weapon stat, and do not provide air missions.

7.3. Air Orders:

The number of air missions available to be tasked each turn results from orders given in the air command *last* turn, minus air missions that were lost during turn resolution. For example, if you possess 6 Air Strike missions in total, but 2 are lost during turn resolution, you will only have 4 strike missions available next turn.

7.3.1. Air Bombardment:

Air Bombardment deals moderate damage against all enemy units in the target hex on impulse 0. The strength of air bombing scales according to year. Air bombing can be target any hex, even outside of your Line of Sight. Air Bombardment can be driven off by enemy fighters or weakened high/medium altitude anti-aircraft. Terrain also reduces the lethality of bombing, the same way it reduces artillery barrage.

Anti-Air versus Air Bombardment: All high-altitude anti-aircraft in the target hex, all high-altitude anti-air in adjacent hexes, and 50% of medium altitude AA in the target hex defend against air bombardment.

7.3.2. Air Strike:

Air strikes inflict high damage on a single enemy unit in the targeted hex on impulse 0. The bombardment strength of airstrikes scales according to year. Unlike air bombardment, air strikes can only be targeted on spotted enemy units, you cannot call air strikes on hexes outside your Line of Sight. Air Strikes can be driven by enemy fighters and weakened by low/medium altitude anti-aircraft. Terrain also reduces the lethality of strikes, the same way it reduces artillery barrage.

Anti-Air versus Air Strike: All low and medium-altitude anti-aircraft in the target hex defend against air strikes.

7.3.3. Air Support:

Air support provides flying fire support and the crucial final component of the +50% combined arms modifier to the targeted friendly unit throughout the entire turn. Air support missions can be driven off by enemy fighters and weakened by low/medium altitude anti-aircraft.

Anti-Air versus Air Support: All low and medium-altitude anti-aircraft in the target hex, and 50% of medium altitude AA in adjacent hexes defend against air support.

7.3.4. Ground Interdiction:

Ground interdiction eliminates the benefit of a road or trail to enemy units moving through the targeted hex during turn resolution. Interdiction can be targeted on any hex, even outside of your Line of Sight. Ground Interdiction missions can be driven off by low/medium altitude anti-aircraft and enemy fighters.

Ground Interdiction Bonus Against Forced March: Forced Marching units that run into an enemy ground interdiction mission suffer cohesion damage and are immediately forced to halt.

Anti-Air versus Ground Interdiction: All low and 50% of medium-altitude anti-aircraft in the target hex, and 50% of medium altitude AA in adjacent hexes defend against interdiction.

Strategy: Target Ground Interdiction missions on roads running through rugged terrain, or on roads you believe enemy reinforcements will move through during turn resolution. When properly used, Interdiction can slow down enemy advances, completely deny enemy armor access to roads/trails through mountains, and deny 6 point overstacking along roads during turn resolution.

7.3.5. Air Recon:

Air Recon provides a 2-hex line of sight around the targeted hex. Air recon missions can be driven off by enemy fighters.

Air Recon Anti-Air Exemption: Because most recon aircraft in CAOS operate in small numbers at high-altitude they are exempted from anti-aircraft fire.

7.3.6. Maintenance:

Aircraft inevitably suffer cohesion damage as they fly day after day without maintenance. Air groups suffer a base 5% cohesion loss per turn, but enemy air superiority and anti-aircraft can increase cohesion loss significantly. As cohesion depletes the number of missions each air group performs per

turn decreases proportionately as well. Air groups regain between 20-30% of cohesion per turn when undergoing maintenance, depending on the nation and aircraft type.

Strategy: Exotic aircraft such as the German ME-262 jet fighter suffer from relatively low cohesion regeneration rates. Likewise, most Soviet aircraft possess lower cohesion regeneration rates than their Western adversaries. In both cases avoid flying air missions with all squadrons constantly, either hold them all back and flood the battlefield with aircraft during of a major offensive, or cycle squadrons so you always have some flying and others in maintenance.

7.4. Anti-Aircraft:

Low/Medium/High anti-aircraft impacts different air missions in different ways. See the air orders in section 7.3 for details per mission type. In general, high-altitude anti-aircraft specializes against air bombardment, low-altitude anti-air specializes against air strikes and interdiction, and medium-altitude anti-air impacts most mission types to varying degrees.

Impact of AA on Air Groups/Missions: The higher the anti-aircraft value of the target, the greater cohesion damage attacking air groups suffer. Additionally, anti-aircraft cover reduces the barrage value of air bombardment/strikes, and reduces the support value of air support. Large concentrations of anti-aircraft can negate air support completely.

8: Paratroop and Amphibious Landings

Paratroop and amphibious landings are highly specialized invasion orders exclusively available to attacking players in Invasion scenarios.

8.1. Paratroop landings:

Paratroopers land on or within one hex of the targeted drop zone on impulse 0 of turn resolution, although the presence of enemy troops can make them land even further away. Upon landing paratroopers suffer casualties and cohesion loss that leaves them vulnerable to immediate hostile counterattacks. Although some of these casualties automatically trickle-back to the unit over the succeeding turns. See section 6.8.3 for details on the casualty/trickle-back statistics of different paratrooper types by nation and year.

Strategy: Due to the uncertainty of the precise landing zone and the risk of drop casualties, it's usually wise to avoid dropping paratroopers adjacent to powerful enemy units or too far away from relief forces. You don't want to end up jumping a bridge too far.

8.1.1. Drop Restrictions:

Airspace Control: Paratroop drops can only be conducted inside friendly airspace (see section 7.7.1).

Terrain: Paratroop drops cannot be ordered in mountain or swamp hexes, although paratroopers can still accidentally fall off course and end up landing in these terrain types if they are adjacent to the selected landing zone.

8.1.2. Drop Dispersion:

Paratroopers land in a one-hex radius of the designated target under normal circumstances. However, the presence of enemy units can displace paratroopers even further. If a paratroop unit happens to land on an enemy unit, the paratroopers will be displaced into a nearby empty hex, ever further from the targeted landing zone.

8.2. Amphibious Landings:

8.2.1. Conventional Landings:

Conventional amphibious landings involve placing a landing marker, and then selecting up to 8 invasion beaches within 6 hexes of the marker. Beaches are only selectable if they are inside friendly airspace (see section 7.1.1). In addition to whatever units storm the beach the turn the marker is deployed, beaches remain landable to reinforcement units for 3 turns, or until enemy units occupy the beach. If properly used an invader can deploy entire corps across a full set of 8 beaches in a matter of days. However, conventional landings are never stealthy because the defender can see designated invasion beaches after they are activated, even if they do not have direct line of sight on the landing zone.

Amphibious Combat: Amphibious landings are the highest intensity battles in CAOS. When landing units encounter beach defenses they relentlessly attack every impulse regardless of odds until they take the beach, are destroyed, or the turn ends. If a landing unit rolls a retreat in combat they take an automatic 15% strength loss like encircled units do, but keep attacking. While invading forces suffer an amphibious combat reduction and the risk of high casualties, they also gain the powerful bonuses of naval gunfire (see section 8.2.2.).

Failed Landings: Landing units that fail to take a beach but are not destroyed automatically return to the deployment box and suffer 50% cohesion loss, in addition to attrition suffered during the landing.

8.2.2. Naval Gunfire:

Amphibious landings gain naval barrage and fire support bonuses. During the first impulse of an amphibious landing the beach is hit by naval barrage, and naval fire support is added to the combat value of the attackers during every impulse of the landing. Naval barrage/fire support values differ from nation-to-nation, but in each case is calculated from the artillery throweight of common light cruisers and destroyers

8.2.3. Commando Landings:

Commando landings can be conducted anywhere in friendly or contested air space without requiring a beach landing marker. Unless your opponent has units with line of sight on the commando's landing zone, they will not know your commandos have landed. Commando landings still consume reinforcement points.

8.3. Invasion Logistics:

8.3.1. Reinforcement Points:

Reinforcement points represent the naval or air logistical assets required to land a combat unit. Deploying units in amphibious landings, commando landings, and paradrops all consume reinforcement points. The number of reinforcement points required to land a unit is equal to its stacking value.

Strategy: Without proper planning reinforcement points can become a serious bottleneck for invading armies. Consider how many units you plan to land until the next reinforcement period (typically every 3 turns) and purchase additional reinforcement points accordingly. Units stuck in the deployment box with no reinforcement points left to land them do you little good until more reinforcement points can be purchased during the next requisition phase.

8.3.2. Ports:

In invasion scenarios any city or town on top of a beach hex is considered a port. If an invading player captures a port, they can continue to land reinforcements on that hex without needing to expend a landing marker. Although, landing units in ports still consumes reinforcement points.

Strategy: Most port-cities double as major supply depots, invaders will typically try to capture one early on in an invasion to simplify their logistics.

8.3.3. Amphibious Landing Stacking Limit Exception:

Up to 5 stacking points can be landed in a single beach hex per turn instead of the usual 4 points.

Strategy: Against defended beaches, use the extra stacking point limit on landings to land additional armor or artillery to ensure combined arms for your landing parties. For undefended (or poorly defended) beaches use this extra stacking point to get headquarters and artillery units ashore that would otherwise have to wait an extra turn to make landfall.

9: Scenario Editor:

The scenario editor allows you to take any map and any OBs and make your own custom scenario. The editor uses a modified hotseat setup, so you can swap between the two sides and run the first turn as many times as you like without issue. Throughout your time in the scenario editor, the scenario editor bar on the left will be your constant companion.

9.1. Scenario Creation:

To create a custom scenario start at the main menu and select Single Player >>> Editor, select your scenario options, enter a scenario name, and press create.

Once the scenario is created you will immediately notice the editor bar on the left side of the screen and will also be able purchase and place units anywhere on the map, regardless of deployment zones. See sections 9.2 through 9.4. for details on each of the editor tools at your disposal.

9.1.1. Saving Scenarios:

After you have made your edits and you are happy with your scenario, simply save like you would in a normal game. After saving the scenario will instantly be ready for play on your scenario list in game creation, both in single player and multiplayer.

Note: You can host multiplayer games of your own custom scenarios without uploading them to the Steam workshop. Only the player hosting the game must have the scenario files.

9.1.2. Editing Your Custom Scenarios:

If you want to make further edits to a scenario of your own design without creating a separate scenario variant simply select Single Player >>> Load Save >>> Editor tab >>> select the save you used to create the scenario.

This will load you into the scenario in editor and you can continue making changes exactly the same way when you first created the scenario.

9.1.3. Creating Variants of Exiting Scenarios:

You can make variants of your own custom scenarios, premade scenarios, and even workshop scenarios by simply selecting the scenario in the editor menu and 'creating' it under a new name like you would a new scenario. This creates a new variant, effectively a clone, that you can make changes to without altering the base scenario.

9.2. Scenario Settings:

9.2.1. Req. Points:

Req. Points allows you to set *starting* requisition points for both sides. Ongoing requisition point schedules are set in the scenario configuration file, see section 9.2.2 for details.

9.2.2. Settings:

The settings drop-down menu provides access to several scenario features including the crucial scenario configuration file, scenario description, side-specific briefings, and game length.

Scenario Config: Opens the scenario configuration file for this scenario as a notepad file. The scenario config controls most crucial aspects of a scenario, including its requisition mode, replacement point schedules, paratroop options, battlegroup and engineering restrictions, and more. See section 9.6 for a full discussion.

Scenario Description: Opens the scenario description file for this scenario as a notepad file.

Scenario Briefing: Opens the scenario briefing file for the active side in this scenario as a notepad file.

Edit Mod File: Opens the Steam workshop mod information file for this scenario. This file includes critical information to upload this scenario to the workshop, including: scenario workshop name, description, search tags, and directory for the scenario preview picture.

Set Game Length: Set the turn length of the scenario. The scenario must be at least 5 turns long.

9.2.3. Tools:

Tools includes various small editor features that are useful during scenario creation such as the ability to disable Fog of War and delete selected units.

Disable FoW (Fog of War): Useful when deploying units along a front line in the editor so you do not accidentally deploy opposing units on top of each other.

Delete Unit: Deletes currently selected unit(s). Useful in two broad cases: 1) Where you want to delete a detached part of a larger unit. 2) Delete a unit that cannot be refunded normally (units sometimes become unrefundable after orders of battle are updated).

In the first case the deleted detachment is removed from play entirely, this is useful to remove units that have already been destroyed before a scenario starts. In the second case the unit is returned to unit pool as if refunded. Although you typically need to end and re-open the preturn using the Buy Units button to force the unit pool to update and reflect this.

Remove Deployments: Erases all deployment zones currently on the map. We highly recommend you use this when you first create a scenario to remove any pre-placed randomly generated deployment zones.

9.2.4. Upload:

Uploads the scenario in its current state to the Steam workshop. If the scenario has been uploaded previously uploading again simply updates the existing workshop file. Make sure your scenario is ready to play before you upload it.

9.3. Units:

9.3.1. Buy Units:

Opens to unit pool to allow you to purchase units, even outside of a normal preturn.

9.3.2. Reinforce:

Set a reinforcement arrival date for selected units. The units will appear in their current hex on the designated turn, even if that hex is inside the deployment box. Essential when you want to control precisely when and where a unit enters play either for historical simulation or scenario balance.

9.3.3. Coop User:

Designates which user (host or client) controls the selected unit(s) in co-op scenarios. Has no effect on other scenario types.

9.3.4. Set Static:

Temporarily or permanently immobilize selected units. Temporarily immobile units become mobile at the start of the designated turn. Static units can never move, have 0 stacking value, and do not exert Zone of Control.

9.3.5. % Strength:

Set Strength: Set strength of selected unit(s) anywhere between 1% and 100% of max table of organization.

9.3.6. % Cohesion:

Set Cohesion: Set cohesion of selected unit(s) anywhere between 1% and 100%.

9.4. Objects:

9.4.1. Objectives:

Place custom objectives, complete with custom names and victory point values. Objectives can be placed anywhere except on top of other objectives.

9.4.2. Deploy:

Set deployment zones. Deployment zones can be temporary or even permanent. You could create a scenario where one side has deployment zones in cities in the middle of the map to represent forward mobilization zones or railheads for instance.

9.4.3. Supply:

Place supply hubs. The supply range of these hubs is set in movement points. For example, a range 30 supply hub can project supply 30 hexes down road, or 15 across country. Great for representing major, immobile, logistics assets.

9.4.4. Origin:

Set the origin hex from which a side's airpower is projected. Changing origin hexes substantially impacts how the competing air zones propagate across the map. Also note that while all official scenarios have air origins at map edges, you don't have to adhere to that practice.

9.4.5. Air Hub:

Air hubs extend the air zone, they function like powerful, uncapturable, airfields. In historical scenarios we use air hubs to represent the influence of off map airfields, such as Malta in the Operation Husky scenario.

9.4.6. Ports:

Place ports on towns or cities that do not already have a beach. Ports are intended to be used to model river and coastal ports (not on landable beaches) that have obstructable entrances. Each port has a line of communication to the sea set when the port is created. If hostile air zone or units block any point on a port's line of communication to the sea it cannot function.

9.4.7. Forts:

Place forts. Available in 3 levels 1) Improved Position, 2) Field Fortification, 3) Heavy Fortification (Siegfried Line level).

9.4.8. Minefields:

Place minefields. Simple yet incredibly effective.

9.4.9. LOS (Line of Sight):

Place line of sight markers for either side, these markers last 1 turn, outside of editor mode, but you can set their line of sight radius to any value. You could use this to give a side total map vision during the first turn, or advanced vision of specific sections of front at the start of the game, as we do in historical scenarios.

9.5. Object Modifiers:

9.5.1. VP Value:

Change the victory point value of an objective, such as a city, town, or even custom objective.

9.5.2. VP Status:

Change the ownership of a pre-placed objective, such as a city. This can also be used to remove the yellow objective hashmarks or a pre-placed objective.

9.6. Scenario Configuration File:

The scenario configuration file contains most key scenario configuration options. The function of almost every option in the file is explained by a comment marked with //, but not every option is relevant to typical custom scenario creation.

Every option available in the scenario config file relevant to custom scenario creation is listed and explained below, categorized into general and advanced levels. Most players only need to understand general config options, experienced scenario designers will be interested in advanced.

9.5.1. General Configuration Options:

Requisition Parameters: The requisition parameters section contains most key scenario options. Each scenario config file lists parameters sections for Meeting Engagement, Skirmish, Attack, and Invasion scenarios, but only the settings listed under the scenario type that you selected when you created the scenario actually matter. For example, if you created a Skirmish scenario, only changes under the Skirmish section will affect your scenario.

Let's go through the potential options and learn their uses.

Type: Type sets the requisition mode used by the scenario, this can be:

Fixed - follows a predetermined point schedule managed in the Turns sub-section.

Percentage – players receive requisition points as a percentage of their starting points according to the schedule laid out in the Turns sub-section.

Map – Players receive requisition points according to objectives they hold on turns listed in the turns sub-section below. The actual value listed in the turns sub-section is irrelevant here, only that the turn itself is listed as a requisition turn.

Scale: Whether the requisition points received by players should scale according to year of their order of battle. Can be set to 1 (yes) or 0 (no).

Rollover: Whether requisition points should carry over between turns. Can be set to 1 (yes) or 0 (no).

Defendermod: Whether BLUFOR should receive a percentage point modification when requisition mode is set to *Map*. Has no effect when *Map* requisition mode is not enabled. Can conceivably be set to any integer. As an example, Defendermod = .5 would halve BLUFOR requisition points, whereas Defendermod = 3 would triple them.

Attackermod: Whether REDFOR should receive a percentage point modification when requisition mode is set to *Map*. Has no effect when *Map* requisition mode is not enabled.

RedPreturnHold: Disables REDFOR preturn when enabled. Useful when you want to disable automatic first turn requisition for REDFOR. Can be set to 1 (REDFOR turn 1 preturn disabled) or 0 (REDFOR Preturn functions as normal).

BluePreturnHold: Disables BLUFOR preturn when enabled. Useful when you want to disable automatic first turn requisition for BLUFOR. Can be set to 1 (BLUFOR turn 1 preturn disabled) or 0 (BLUFOR Preturn functions as normal).

REDFOR_order_lock: Disable REDFOR player's ability to issue orders on turn 1. Useful when you either have a series of pre-determined orders that must occur on turn 1, such as a historical naval landing, or want to fully paralyze REDFOR on turn on to simulate a surprise attack. Can be set to 1 (REDFOR cannot issue orders on turn 1) or 0 (No REDFOR orders restrictions).

BLUFOR_order_lock: Disable BLUFOR player's ability to issue orders on turn 1. Can be set to 1 (BLUFOR cannot issue orders on turn 1) or 0 (No BLUFOR orders restrictions).

Turns: Designates requisition turns and the points received by each time on those turns when requisition type is set to *Fixed* or *Percentage*. Feel free to look at existing scenarios either in the game's data files or editor for inspiration. Let's take a look at a series of quick examples for basic context:

Example 1: No requisition turns:

Turns

(

)

This example would include NO requisition turns at all. Useful when you want your scenario to exclusively use predetermined reinforcement schedules as we do in historical scenarios like Gazala and Operation Husky.

Example 2: Basic Fixed Requisition:

Turns

(

3=10/20

6=5/25

9=10/35

12=120/15

)

This is fixed requisition schedule with requisition every 3 turns. On turn 3 BLUFOR receives 10 points and REDFOR receives 20. On turn 12 things change drastically when BLUFOR gains 120 points against REDFOR's paltry 15.

Example 2A: Extending Fixed Requisition:

Turns

(

3=10/20

6=5/25

9=10/35

12=120/15

19=0/42

26=40/80

)

Adding new requisition turns is simple as adding new turns to the list. We can even try some other tricks like asymmetrical requisition turns (see turn 19 above) where BLUFOR gains no requisition, but REDFOR gets 42 points. You can make requisition as simple, or complex, as your scenario requires.

Example 3: Basic Percentage Requisition:

Turns

(

3=.10/.15

6=.35/.50

9=.10/.12

12=.08/.25

)

If you are using percentage requisition, remember to pay attention to where your decimal points are at to avoid unintentionally large, or small, requisition values.

Replacements: Replacements functions similarly to requisition turns. Designate turns for replacements to arrive and then fill out the numbers in the following format: Blue Infantry/Blue Armor/Blue Artillery/Red Infantry/Red Armor/Red Artillery.

Let's see an example in action:

Replacement Example:

Replacements

(

3=51/9/12/65/50/21

9=51/18/12/65/49/21

16=51/18/12/77/53/21

23=51/27/12/77/53/21

30=51/18/12/77/53/21

37=51/18/12/77/53/21

)

In this example BLUFOR receives 51 infantry, 9 armor, and 12 artillery replacements on turn 3. While REDFOR receives 65 infantry, 50 armor, and 21 artillery.

Landing Points: Landing Points function similarly to requisition and replacement turns. Designate turns for Landing Points to arrive and then fill out the numbers in the following format: Red Landing Points/Blue Landing Points.

Landing Point Example:

LandingPoints

(

5=35/0

14=15/0

21=7/0

)

In this example REDFOR will receive 35 landing points on turn 5, 15 on turn 14, and 7 on turn 21.

9.5.2. Advanced Configuration Options:

BLUFOR_para: Toggles availability of paradrops to BLUFOR. Can be set to 1 (enabled) or 0 (disabled).

REDFOR_para: Toggles availability of paradrops to REDFOR. Can be set to 1 (enabled) or 0 (disabled).

BLUFOR_cost_para: Toggles whether BLUFOR paradrops require landing points. Can be set to 1 (paradrops require landing points) or 0 (paradrops do not require landing points).

Note: Keep this as 0 unless you know exactly what you are doing. BLUFOR cannot purchase landing points under normal circumstances in CAOS.

REDFOR_cost_para: Toggles whether REDFOR paradrops require landing points. Can be set to 1 (paradrops require landing points) or 0 (paradrops do not require landing points).

Note: Generally, keep this set to 1 in *Invasion* scenarios, but set it to 0 when your scenario requires paradrops in any other scenario type, since landing points can only be purchased in Invasion scenarios.

BLUFOR_landing: Toggles whether BLUFOR can purchase landing markers, landing points, and conduct amphibious assaults. Can be set to 1 (BLUFOR can land) and 0 (BLUFOR cannot land).

Note: BLUFOR landings are untested in CAOS, you can conceivably enable them but its impact on gameplay and the AI in particular is unknown.

REDFOR_landing: Toggles whether REDFOR can purchase landing markers, landing points, and conduct amphibious assaults. Can be set to 1 (REDFOR can land) and 0 (REDFOR cannot land).

BLUFOR_training_lock: Toggles whether BLUFOR can change training levels in requisition screen. Can be set to 1 (changing training level disabled) and 0 (training levels can be changed).

REDFOR_training_lock: Toggles whether REDFOR can change training levels in requisition screen. Can be set to 1 (changing training level disabled) and 0 (training levels can be changed).

BLUFOR_rep_lock: Toggles whether BLUFOR player to purchase replacements in requisition screen. Can be set to 1 (replacement purchase disabled) and 0 (replacements purchasable).

REDFOR_rep_lock: Toggles whether REDFOR player to purchase replacements in requisition screen. Can be set to 1 (replacement purchase disabled) and 0 (replacements purchasable).

Battlegroup Restrictions:

Engineering Orders:

Not every conceivable scenario needs every engineering order. Perhaps sometimes you simply do not want to allow players to destroy bridges or you want to lock them into exclusively using pre-placed fortifications. You can achieve this with the engineering sub-section.

Enable: Toggles availability of engineering orders. Can be set to 1 (enabled) or 0 (disabled).

Destroy_bridge: Enables or disables bridge demolition. Can be set to 1 (enabled) or 0 (disabled).

Mining: Enable placing minefields on a nation-by-nation basis. Remove a nation's name from the list to disable the place minefield order for them.

Demining: Enable removing minefields on a nation-by-nation basis. Remove a nation's name from the list to disable the clear/breach minefield orders for them.

Forts: Enable fort construction on a nation-by-nation basis. Remove a nation's name from the list to disable the Improve Position order for them.

Bridge: Enable bridge construction on a nation-by-nation basis. Remove a nation's name from the list to disable the bridge construction order for them.

9.6. Uploading Scenarios to Steam Workshop

If you want to share your custom scenario with the CAOS community via the Steam Workshop simply make sure your scenario is ready to play and press the Upload button. Re-uploading a scenario you have previously uploaded simply updates the workshop file.

9.6.1. Uploading Your Scenario Checklist

1) Create and save your scenario.
2) Use the Edit Mod File feature under the settings button to set your scenario's title, description, search tags, etc., on the workshop,
3) Press the Upload button on the editor bar and confirm your upload.

And you're done! Your scenario has now been shared to the workshop. Other players can now download it and play it from their custom scenarios menu in game.

Head to the workshop tab for CAOS in Steam to manage your uploads, set their public visibility status, modify descriptions, add additional preview pictures, etc. If you ever need to update your scenario simply repeat the upload process.

9.7. Downloading and Enabling Mods/Scenarios from Steam Workshop

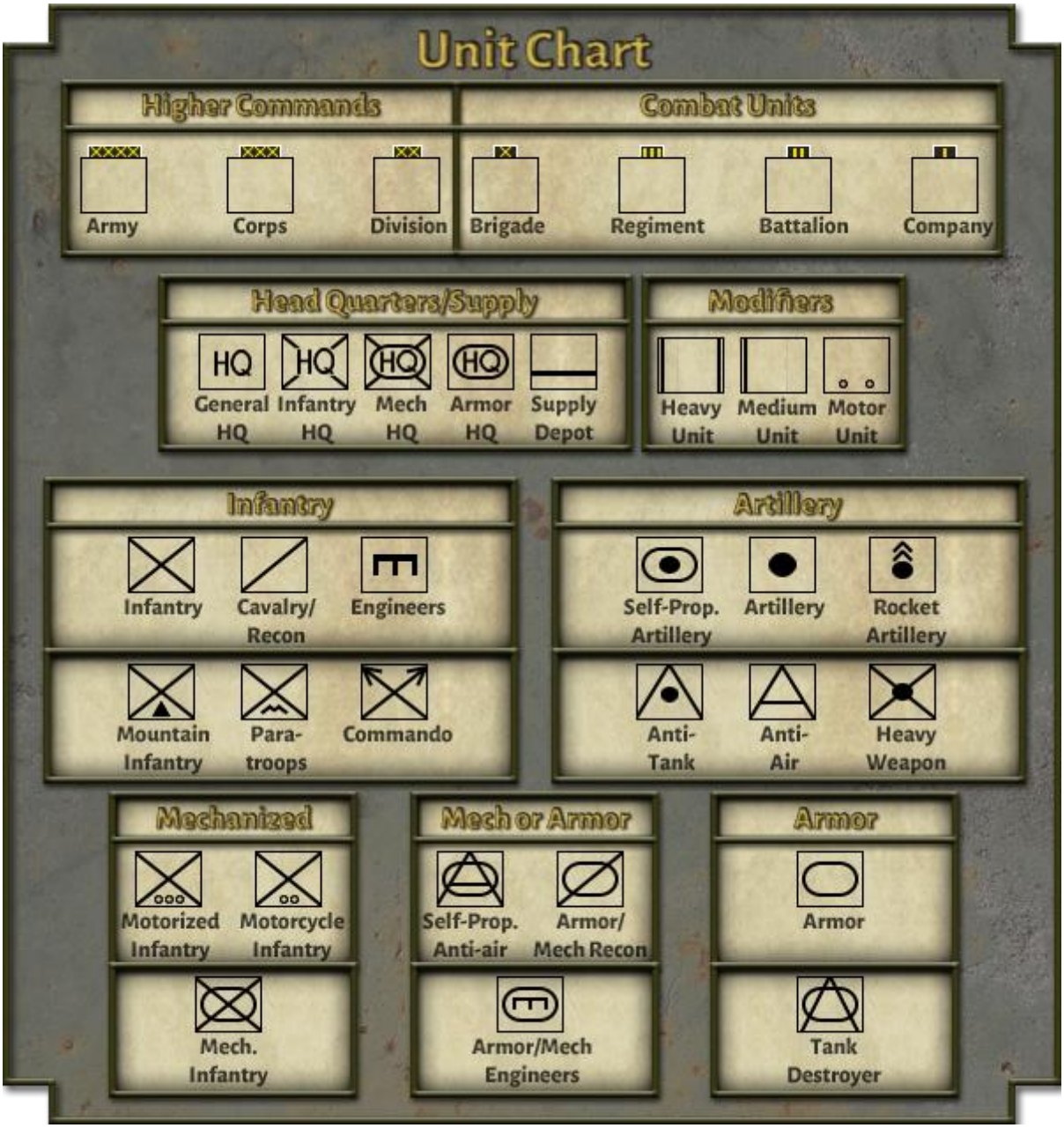
9.7.1. Subscribing (Downloading) Mods/Scenarios from Workshop:

Scenarios and other modifications (mods) can be easily downloaded by navigating to the Steam Workshop (accessible via the Steam library). Once you are at the workshop you can search for mods, or view trending mods. After you find something that catches your interest, open the mod's workshop page and press the green subscribe button to download the file.

9.7.2. Enabling Mods/Scenarios:

After subscribing to a mod or scenario, you can enable it using the Mod List button in Options, inside CAOS. Simply launch the game, navigate to Options, press the yellow Mod List button, and select the mod you want to enable and press apply. Mods can be disabled the same way. Restart the game to force your changes to take effect after you have enabled/disabled mods.

Appendix 1a: Ground Unit Chart (NATO Symbol Set)



Appendix 1b: Ground Unit Chart (Pictorial Symbol Set)