

The Evil Ed

Version 1.2

(Footnotes added for changes in TOAW III)

Introduction

For those who don't know, the term Evil Ed is derived from the TOAW Event Editor. The Event Editor is often abbreviated Ev Ed, and over time the meaning of Ev was transformed from Event to Evil. Anyone who has worked extensively with this thing will know why we consider it to have a sinister disposition.

This document was compiled by the members of the TOAW Design Group (tdg.nu) to assist TOAW scenario designers to better understand the event engine used in the game. It is a collection of tips, tricks, bug reports, and general information from some of the game's best designers. All information contained has been verified through actual experience or small test scenarios. If you find that any of this data is inconsistent with your own experience, please contact myself or another member of TDG and we will straighten out the discrepancy. This document is a continuing work in progress and will be updated from time to time. Some of the items may seem elementary to experienced designers but can be helpful for the beginner.

This document is owned by TDG and is intended only for the personal use of TOAW scenario designers. Any other intended use must have prior approval of TDG.

Curt Chambers

Editor, The Evil Ed

December 2002

Contents and Organization

The document has been broken down into the following major categories:

- Event Triggers
- Event Effects
- Event General
- Miscellaneous

Event Triggers and Effects are self-explanatory. Event General is information that could not be accurately grouped under a specific trigger or effect. Miscellaneous is other information that is only loosely associated with the Event Editor.

Each major category will be further divided into subsections. For example, Event Effects has a subsection for individual effect, and so forth. Within each subsection is the actual information. To help with categorizing I've color coded some of the entries:

Green = Technical information regarding events that is either little known or poorly documented in the TOAW manual. It is stuff you need to know to use the events effectively and correctly. Most entries fall into this category.

Blue = Special uses and tips. Includes unusual or imaginative uses for events. Things you may not have thought of. Examples of how designers have used events to model something in particular.

Red = What I consider to be a bug. An item that either goes directly against what the TOAW manual says or goes against common sense. Common pitfalls that designers fall into regarding events will also go in red, just to get your attention.

In most cases I've left the contributor's piece as-is, correcting only spelling and grammar. In other cases I've slightly re-arranged or edited it to make it easier for the reader to find a specific piece of information. At the end of each information item I have included the contributor's name in parenthesis.

References to triggers and effects are indicated in **bold face**. Examples of an event are given in [Lucida Console](#) to make them easier to read.

Event Triggers

Certain Triggers Have Restrictions

Some time ago I was puzzled why an occupation event could trigger a warm front, and why not the activation of another event. It is only that an event is a record of 9 fields (plus a news string) and, in the case of a complex trigger like occupation, there are simply no more slots for certain effect parameters. With the occupation event, there is in fact no room for any more parameters, which means that only the simplest effects can be used with this trigger. This means that in most cases you will need an extra event triggered by the first one. (Peter)

In reference to Peter's comment, only the **Turn**, **Event Activated**, and **Event Cancelled** give you the full range of potential effects. All other triggers only allow for a smaller subset of potential events. (Curt)

Delay and Range

Ranges and Delays only work with **Turn**, **Event Activated**, and **Event Cancelled** triggers. They are ignored with other triggers. And Range only works the first time an event is activated. If you later recycle a **Turn** trigger event, for example, any attached Range will be ignored (Curt)

When Range does work, it is heavily weighted towards the beginning of the range¹. (Jarek)

Event Activated

An event that merely enables another event (effect = **Enable Event**) is never considered "activated" for trigger purposes, and will not trigger another event. (Curt)

Use this trigger to apply a proper Delay/Range for triggers that don't normally use them. For example:

Event #1, Force Occupies (x,y), News Only, Delay/Range = 6/1

will not utilize the delay of 6 because delay/range doesn't work with that trigger. But,

Event #1, Force Occupies (x,y), News Only

Event #2, Event Act #1, News Only, Delay/Range = 6/1

will work as intended. (Curt)

Event Cancelled

The only time this trigger actually works is when the designated event fails a probability check. Contrary to what might seem logical, it does not work when you cancel an event with the **Cancel Event** effect. (Curt)

The trigger can be used to create balanced alternated reinforcement time-tables:

¹ This has been fixed in vanilla TOAW III.

Event #1, Turn 1, prob 50%

Event #2, Event cancelled (#1), prob 100%

Event #3, Event activated (#1) – unit 1 enter the game

Event #4, Event activated (#1), delay 2 – unit 2 enter the game

Event #5, Event activated (#2), delay 1, activate event 3

Event #6, Event activated (#2), delay 1, activate event 4

This way you get both units at turn 2, or one at turn 1 and second at turn 3. Notice, that delay of event #4 doesn't work when event is activated by event #6. (Jarek)

Force Attacks

Good to recreate a more detailed interdiction model. If air or artillery attack could trigger that event, you can easily implement the following line: Germans strafe from the air the important rail station and supply dumps at Shepetovka and with a some chance (25%, for an instance) Soviet supply point there will disappear for 1-2 turns. Surely, then you have to place some immobile unit there, representing supply dumps and rail station buildings. (Pavel)

Can be used to force players to fight for certain places. For example, it is usually quite hard to keep Soviet player in summer 1941 from running away from border as fast as he can. Even harder it is to force him counterattack – since if large shocks implemented for Germans, it is clear that Soviets will have no effect but speed up evaporation of their forces. But we can use the following line: if German troops approach town A (inside some radius), soviet player have X VPs for each round that there're fightings inside this radius (forcing Soviets to fight as long as possible). Furthermore, if German took this town, Soviet player have to act inside a smaller radius but with increased bonuses (forcing him to counterattack as long as possible). Add there that he'll have even greater bonus if he'll manage to take the town. In some cases this could be enough to throw Soviets into historical counterattacks near the borders (while common player will avoid it at all costs against German supremacy). But, please, note that this feature is useful in the relatively short scenarios (several days or weeks), when the questions of tactics prevails over the strategy and operational planning. (Pavel)

Note the difference between **Force Attacks** and **Force Occupies**. The latter only works when a change of possession occurs as a result of physical occupation. The former is triggered by an attack on the hex, regardless of whether it was occupied. Occupying a hex, thereby triggering a **Force Occupies** event, will also trigger a **Force Attacks** event. In other words, merely occupying an enemy hex is also considered an attack by the TOAW event engine. (Curt)

Force Attacks events cannot be recycled with **Enable Event**. There is something in TOAW that flags an attacked hex and prevents a recycled event from activating. (Curt)

Interdiction air strikes within the trigger area do not activate this trigger. It must be a deliberate direct attack. (Peter)

Force Occupies

The trigger activates upon change of hex control. Hexes that were initially owned by the specified force do not count, unless lost and then recaptured. (Peter)

The automatic expansion of a unit's ZOC between turns is enough to trigger this event (as well as Force Attacks). Keep this in mind when setting up your occupation zones. (Curt)

Will often use this event to trigger supply losses or gains usually related to strategic supply facilities like ports/oil refineries/factories. (Trey)

Can be used to force a country to surrender and could be tied into the Withdraw Army event to show the force surrendering all its forces. (Trey)

Useful if you want the capture of a certain location to trigger other countries into entering the war. Example, capture of Paris by the Germans in 1940, could trigger the entry of Italy into World War 2. (Trey)

Switching objective tracks with the carefully planned set of Force Occupies events is the way to help PO act wisely. Second echelon that enters a breakthrough at the points of highest success of first echelon; mindful use of reinforcements to seal the gaps or cut the pincers... and many many others... Albeit such system demands from a designer to predict and preplan many possible combinations (therefore consuming many of event slots). (Pavel)

Force Uses Chemical

Use this for authorizing the other side to use chemical weapons if the other force chooses it as a theatre option. Useful when one side can only use chemical weapons when the other side escalates first. (Trey)

Force Winning

This is useful for reinforcements that should show when catastrophe looms rather than on a particular turn: Volkssturm units, Workers Rifle divisions, training formations, etc. (Colin)

The editor does not allow to input values bigger than 100. This can be bypassed: To get a trigger with a victory differential X, first set a turn trigger, **Activate Event** effect, with Event to activate No. X+1. Then change the effect to **News only**, and the trigger to **Force winning**, and you are ready. I have done some (yet not very thorough) testing that shows that this probably works correctly. (Peter)

The VP could be used as temporary second game variable. (Jarek)

TOAW evaluates this as greater than or equal to. For example, if Force 1 is winning by 200 at the start of the game, and you have a **Force Winning** by 100 event, it will immediately trigger. (Curt)

You can recycle these events the normal way with **Enable Event** but be warned that if the force is currently winning by the indicated amount or greater, the event will immediately activate upon being enabled. (Curt)

Turn

An event will activate if its turn trigger is equal or less than the current turn. This has 2 implications: 1) an easy way to create a repeating loop, 2) an event cancelled but later enabled will immediately activate if its turn trigger has already passed. (Curt)

Unit Destroyed

(See also **Withdraw Army/Unit** event effects. Event triggers and effects that deal with specifying units or formations usually behave similarly).

Can use this event for activating Victory points for specific and/or unique units. (Trey)

The event engine reads all the units from first force before second force and starts at the top. If you have units with the same name it and enter one into the field it will default to the first unit with that name that it comes upon. (Jeremy)

If you want to have two units with the same name, you can give them different names first and change them after defining of the event. (Jarek)

The event activates if the specified unit is destroyed or disbanded by the owning player. There is no activation if the unit is disbanded or withdrawn by an event. (Peter)

If a scenario is converted between versions 1.03 and 1.04, unit references in the event engine may be

lost. Always check your event list after such conversions.² (Peter)

Variable Value

Use the variable to trigger national morale affects. With each unit destroyed, have the variable increase slightly. When the variable reaches certain milestones, you could activate either a shock affect to lower a force's effectiveness or withdraw units from desertion. (Trey)

Use Variable to model industrial production. Loss of key industrial cities raises variable. When certain milestones are reached, activate events that lower the replacement value incrementally. (Trey)

Use Variable to model the entry of various powers into a conflict. Have the variable increase with aggravating events and possibly decrease with others. For example, you could model the US entry into World War Two. (Trey)

The variable value does not have to be equal to the trigger to activate it just has to be equal or greater than. (Peter)

Same as Force Winning, if you recycle the event and the variable is already past the indicated amount, it will immediately execute. (Curt)

The variable value can also be used to create a response to a certain level of attrition. The destruction of each specified unit will have a certain likelihood of increasing the value of the variable by a certain amount. This avoids the 'magic unit' problem, since the loss of no one unit can set off the trigger by itself or is even certain to increase it. At the same time, since the extremes become increasingly unlikely in a series of random occurrences (try tossing heads ten times in a row), the response will almost certainly be tripped within a rather small total range.

So, for example, if we want the Royal Navy to become increasingly likely to pull out all its ships if more than a few are lost, we could create an event for each ship that is triggered by its loss and that has a 50% chance of adding 25% to the variable value. Obviously, zero through three ships could be lost with impunity. In only one case out of sixteen would the loss of four ships cause the variable value to reach 100. Losing five ships would cause it to happen six out of thirty two times. Thereafter, the likelihood skyrockets: you're highly unlikely to lose eight ships and keep your fleet.

If all this brings back uncertain and painful memories of high school mathematics, you're not alone, but trust me -- it works. I just can't remember the exact formulas. (Colin)

Event Effects

Activate Event

Could be used in conjunction with a theatre option such that if a country declares war on another country, there would be a % chance that another country would declare war as well. Example, if Germany declares war of Norway, there would be a 75% chance that this event would activate another event that would cause the UK and France to declare war on Germany. Makes Theatres Options involving declarations of war much more interesting and risky. Also, there could be many events that could be chained to one where the entry of one country could force the entry of another which could then spark another country to enter in a domino effect. (Trey)

Air Shock

Set at 10% it is a very useful way of giving 100% cloud cover (monsoon and other low-cloud areas) (Richard)

² This also applies to conversions from ACOW to TOAW III.

Air Transport

Make sure when you use this that you check the "weight" of units you want airdropped and airlanded so that you have enough points allocated to make the airdrops. You can check unit weight by clicking of the unit stats button in the deployment editor. (Trey)

Air Transport only works for specific airborne capable pieces and HQs. It does not simulate air transport so much as airdropping ability. (Jeremy)

Air transport is basic for air supply effects. Airborne capable pieces and HQs get air supply much more effective than others, not depend they have been dropped or not. ³(Jarek)

Cancel Event

Important to use if you have multiple events with multiple outcomes. Some situations may make others events moot and they should not be activated. This option makes sure that these events don't happen and are crucial in preventing strange events from occurring or odd news messages from appearing. (Trey)

Cancelling an event merely prevents its execution. It does not trigger an **Event Cancelled** trigger. (Curt)

Cease Fire

Can be used to set up temporary cease fires, especially in two player PBEM games. There could be a theatre option to "Request a Cease Fire". Once activated, it could open up an additional theatre option on the opposing side called "Agree to Cease Fire". Once this one is activated by the other side, then the Cease Fire event could be activated. Of course once this is done, you'd want to activate two additional theatre options so that either player could resume actions through the **Open Fire** event. (Trey)

Use this at the start of a match to simulate free set up. (Jeremy)

A **Cease Fire** in effect does not prevent Guerrilla units from entering in enemy controlled hexes. (Curt)

Air units set to Interdiction will still conduct air strikes during a **Cease Fire**, even though the status screen will indicate that Interdiction is 0%. They will not, however, lower the enemy's supply stockpile. (Curt)

Cold/Warm Front

This event 'wraps around' the cold and warm front continuum. If you use this and there is a region that is already at frozen+3 it will flip over to Very Hot. The reverse is presumably true. (Jeremy)

This event also remains in effect until countered by the opposite weather event. (Curt)

Disband Unit

Unlike **Withdraw Unit** this event will cause the unit's equipment to go into the replacement pool. This is very useful for dumping replacements into the pool at a desired time. One creates immobile replacement pool units and schedules them to be disbanded when the weapons should arrive. I've used this to simulate units landing on a beach in less than perfect order. The units start out severely understrength and only regain all their equipment after a couple of turns as everybody figures out where they are and where their battalion is, etc. (Colin)

3 Also note that air supply is not only limited to airborne units, non airborne units will receive it too. The effect of air supply in TOAW is only minimal. Air supplied units will be marked as unsupplied and receive no replacements, but are not subject to desertion and supply/readiness drops. In a usual scenario setup air supplied units might receive one or two supply/readiness points per turn so that this effect will be obscured by combat and movement. The effect is most visible with huge unused air transport capacity. Note that most designers might use supply points in possible dropzones (see i.e. Erik Nygaard's *A bridge too far '44*, Telu's *Nijmegen 1944*).

The event engine reads all the units from first force before second force and starts at the top. If you have units with the same name it and enter one into the field it will default to the first unit with that name that it comes upon. (Jeremy)

If to develop Colin's approach, **Disband** is perfect to make replacements system as detailed as you want. For example, for large (Russian) Civil War scenarios, it is imperative to have sophisticated "hi-tech" equipment distribution model (one could have plenty of angry guys but simply no rifles and guns to arm them, not talking about exotic tanks and planes). Creating special units to represent seasoned replacements, capture of armament dumps, capture of large industrial towns, allied help – and you'll force players to think about replacements much more, if only they don't want to have their army composed entirely of irregular squads. Albeit there're two drawbacks – many unit slots and event slots are consumed. (Pavel)

Note however that there may be an unwanted side effect of equipment dumps: if the units containing the replacement equipment are very large, they may distort the unit strength scale, that is, the strength figures appearing on other units may become very small. (Peter)

To expand on Peter's comment, it can also affect the loss penalty during the game. In CSV I had a super-large unit representing abandoned U.S. equipment which was disbanded upon U.S. withdrawal. However, when that happened the U.S. loss penalty jumped from 5 to about 45. (Curt)

If a scenario is converted between versions 1.03 and 1.04, unit references in the event engine may be lost. Always check your event list after such conversions.⁴ (Peter)

The effect can be used to simulate reorganization of unit into new TO&E at defined turn or player's will (TO). The new unit enter the game when old is disbanded. (Jarek)

Enable Event

If an event has an effect of "Enable Event", reinforcements that are set to key off of this event will not come in. In other words, the event is never considered activated. (Jarek)

See above. This applies to **Event Activated** triggers as well. (Curt)

I understand this event a little bit differently. My understanding is that with this event a designer can re-enable an already cancelled event. This can be used for example in situations when a force re-captures a location that it previously had captured, but the enemy had taken back after that. Sort of re-re-capture situation and effect – like making an event possible for activation again after some event has cancelled it. (Ilkka)

The event can be used for delay of other events. Occupation of an area trigger event #3 not before turn 5:

Event #1, Turn 1, Cancel event #3

Event #2, Turn 5, Enable event #3

Event #3, Force 1 occupy (x,y)

(Jarek)

End Normal/Victory

Help/Manual: Force 1 or 2 wins instantly: Unless another event overrides this one, the indicated force wins at the end of the turn.

This isn't true. The event's exact effect is: end normal and VP+=110% of all objectives value.

Hence, the event needn't cause the victory. If the opponent gets all objectives, the event makes draw

⁴ This also applies to conversions from ACOW to TOAW III.

even without other events' VPs! And, of course, at the beginning of the turn, not at the end. (Jarek)

Form'n'Orders

To simulate on-board units that may not begin involved in the conflict but you want them to possibly become activated, you could give units "static" or similar such orders in the unit deployment editor so that units may not move at all. Once a key trigger is activated and you want those units to be activated, use the form'n orders to change these units from static to active by changing their stance. Good for simulating neutral countries with units that start on the board for deterrence. (Trey)

You could also use this event to throw some confusion among your formations when triggered by certain events. Example, you could set form'n orders so that all of your formations have a 25% of going to "static" orders if a certain city is captured by simulating disruption within the command. (Trey)

Even if the formation has garrison order, unit entering the game as reinforcement have no limit for movement and attack. The exception: if no unit starts the game on the map, the first entering unit gets garrison status. (Jarek)

The understanding of "Minimize Losses, Ignore Losses, and Limit Losses" is crucial to formations' aggressiveness. Example, Warsaw Pact doctrine calls for aggressive assaults without regard to casualties since the first echelon counts on the second echelon in exploiting a breakthrough. In this case, it would make sense for formations to have the "Ignore Losses." More timid and cautious doctrines should use "Limit Losses." For units that put up token resistances, use "Minimize Losses." (Trey)

To expand on Trey's comment, using **Form'n'Orders** to set loss tolerance affects the formation's aggressiveness when controlled by the PO. (Curt)

Back in TOAW II, I had some bad experience with PO formation orders. I found that formations set to attack at 'Minimize Losses' simply shuffled about and did not risk to move ahead and attack (and these were powerful Israeli armored units facing some PLO guerrilla bands). On the other hand, attack at 'Limit Losses' apparently meant to the PO that the formation should attack at 'Limit Losses' incessantly until all units were red, and beyond. I don't know whether this has changed in later versions.⁵ (Peter)

In reference to Peter's comment, this hasn't changed. It is changed by **strategic bias** a little (see **Strategic Bias** section). Formations with ML order never take any activity. Formations with LL order take it partially and are strongly depend on bias. Formations with IL move boldly but attack desperately. I found IL as only way to make PO dangerous.⁶ (Jarek)

Represents Leader-Loss in pre 1900 scens if tied to a specific Unit-Loss, formations can be set for later release. (Richard)

Helicopters at Garrison mode cannot fly transport missions. So the 'Formation orders' effect can be used to limit the availability of helicopter transport. In some situations there is a need for such a limitation; I have seen some scenarios where one side can use helicopter transport to regroup forces of brigade and division size behind enemy lines, free from disengagement penalties. This in practice would involve multiple landings in enemy-controlled areas, which is perhaps not a good idea even where enemy dispositions are sparse – remember Desert One. (Peter)

If you use Static, Wait, Fixed, or one of the other orders that use a turn activation number, remember to set it to a high number in the deployment editor. It defaults to 1 and if left there will override your **Form'n'Orders** event.⁷ (Curt)

5 It has. The PO has been significantly improved in TOAW III.

6 Again, it has changed. Note that since TOAW III v. 3.4 players can further adjust the PO's behaviour in a scenario specific xml file.

7 This engine behaviour is not clearly expressed here. I could not reproduce this in any way in TOAW III. Presumably this has been fixed.

Guerillas

Guerrilla effects are actually useful if you want to minimize the hex conversion penalty for one side -- the only problem is that hexes will be converted least on roads and most in rough terrain. Still helps, though.⁸ (Colin)

Helps to show "Stuka-Fear" by reducing move of one side (Richard)

In Indochine (and other such) give both sides G Effect, VM at night, French during day, in longer scens these should be variable (by ThOpt), at a cost. (Richard)

The Guerrilla effect can trigger **Force Occupies** and **Force Attacks** events. (Curt)

Nuclear OK

A second Nuclear OK event will reverse the effects of the first one. (Peter)

Open Fire

This event is useful in situations which include a few turns set-up phase that for example would allow players to re-group their forces on attack or defence. Sort of like starting an historical campaign or war few weeks/days/hours earlier for a game. (Ilkka)

See also **Cease Fire**.

Pestilence

A useful event in harsh weather to simulate losses from the elements. For example, Russian winter of '41-42. (Trey)

In (Russian) Civil War it is excellent to represent deserting (connected with player's inability to gain the results), influenza, typhoid epidemy and other similar stuff. (Unknown)

PO Activate

Useful when you want the PO to activate theatre options at certain times. Make the events activated with a % chance and the Turn Range delay to make it even more interesting and uncertain. (Trey)

The effect can be used to trigger an event when the game is played against human opponent only:⁹

Event #1, Turn 1, PO 1 – activate event #2

Event #2, Event activated (#2), Cancel event #3

Event #3, Turn 1

(Jarek)

I think what Jarek is saying is a **PO Activate** event is, for trigger purposes, still considered activated even if the PO is not in play. In that case, consider it a **News Only** event.¹⁰ (Curt)

8 Note that since TOAW III v. 3.4 the desired effect can also be achieved with the *Enemy Hex Conversion Cost* parameter, though this effect will last through the entire length of the scenario.

9 Jarek's description and event sequence seems a bit unclear. I think he refers to the possibility that an event can be cancelled if the PO is not in the game so that this event will only be activated in human vs human games. The event sequence could also be set up like this (which might make it a bit clearer what he wants):

Event #1, Turn 1, PO 1 activate, activate #2

Event #2, Turn 999, cancel #3

Event #3, Turn 1, [...]

10 I don't think this is what Jarek wanted to say. But Curt is right about the PO Activate event. It is indeed considered activated for trigger purposes (only). This also still applies to TOAW III v. 3.4.

Rail Damage

Note that this event is often confused. New designers often assume that it will damage the other sides rail - not true, its defaulted at 100% normally (maximum damage) if set lower using this event it will mean that the attackers that occupy enemy rail hexes might get them intact. So if the event is set at 80% then there is a 20% chance for each rail hex taken that the rail is not destroyed. (Jeremy)

Rail isn't damaged, if hex changes ownership in supply phase.¹¹ (Jarek)

Rail Repair

Note that this starts (defaults) at 1 not 0. (Jeremy)

Rail Transport

Reference Jeremy's comment on **Rail Repair**, same goes as for air and sea transport.¹² (Ben)

Refugee

Use also for increasing the effects of towns and surrounding areas or for giving another level of built-up area eg hameau. (Richard)

Affects only road movement, one side and one turn per activation. (Peter)

Doesn't have to be used to simulate only refugees. You can use it, for example, to simulate a slow response to an attack. Units near the enemy can take up positions fairly easily, but crossing half the front in a radical redeployment becomes much harder. (Colin)

Remove/Set Zone

Note that one can move out of a restricted zone if its on to a playable hex. Furthermore the PO (but not human players) can board air or naval transport to leave. (Jeremy)

Excluded zone can be used to secure reinforcement enter hexes. (Jarek)

But excluded zone is removed from hex if a unit attack from it. (Jarek)

Replacements

Percentages here are multiplied into the replacements - that means that setting the number less the 100% reduces that sides replacements. Setting this at 200% doubles that sides replacements and setting this between 101%-199% increases this sides replacements by a formula, Percent-100. Example, Setting this at 180% would increase this sides replacements by 80%. (Jeremy)

Be careful with temporary replacement reduction (turn #x 50%, turn #(x+y) 200%). OPART rounds odd rates up and down at random. (Jarek)

Reference Jarek's comment, TOAW will internally remember fractions and apply them when applicable. For example, lets say that the Rifle replacement rate is 2 per turn. If you reduce replacements by 10%, the replacement screen will still show 2 per turn. If you keep reducing it by 10%, at some point it will have dropped to a level that will permit the 2 squads per turn to be changed to 1. Thus in some cases this may have the appearance of arbitrary rounding, but I believe the game engine actually calculates it fairly exact. (Curt)

¹¹ This is no more true for TOAW III.

¹² Not true, there is no default for air- and sea-transport.

Sea Transport

Make sure when you use this that you check the "weight" of units you want transported by sea so that you have enough points allocated to make the sea moves. You can check unit weight by clicking of the unit stats button in the deployment editor. (Trey)

Bear in mind that in amphibious assault scenarios, many units may be left at sea when your turn ends. This will eat up the sealift available for second wave units and should be allowed for. (Colin)

The transport rate is eaten up by unit disembarked by enemy's attack. (Jarek)

Set Ownership

Note that this can be very easily blocked. For example it will not work if enemy air units are stationed in the hex. (Jeremy)

If using G-effect remember to set ownership of any entrance hex on the move it will be used. (Richard)

Shock

A very important effect of even modest positive shock is that it seems to virtually prevent early turn ending. A force that otherwise would be doing well to get three rounds of attacks seems to routinely get six rounds with even 110% shock. On the other hand, negative shock does not seem to have as strong an inverse effect. So I'd guess that all things being equal, giving one side a negative shock of 90% is going to produce a more modest change in results than giving the other 110% shock. (Colin)

What's more my understanding is that even 101% shock gives quite unnaturally long terms- possibly even to the extent of ignoring units which have used up more of their move. (Ben)

Both sides negative shock can be used to simulate bad weather – snowdrifts to thaw. (Jarek)

Both sides positive shock can be used to get increased scenario mobility (see above). (Jarek)

Both sides positive shock increase importance of interdiction and transport assets for supply level as final supply level is multiplied by shock value. (Jarek)

Storms

Depending on the scale of the game, these need the assistance of other effects to give them teeth..eg reducing The Recon. (Richard)

At Frozen 2 level one storm is balanced by two warm fronts – the temperature remains the same in long term. (Jarek)

Strategic Bias

Berserk bias changes all PO formations to Ignore losses. Most sensitive for bias are formations with Limit losses order. (Jarek)

Supply +/-

Both supply + and – events are very important and should be carefully used. A designer can for example create supply boosts if a force captures an important location like major harbour or at smaller scale an enemy supply dump. (Ilkka)

Note that unlike replacements events, the supply events works like plus and minus. That is to say NOT as a multiplier. (Ilkka)

The effect can be used to simulate temporarily reduction of supply caused by partisans' attacks. (Jarek)

The effect can be used to simulate long term morale based on Force winning triggers. (Jarek)

Supply Point¹³

One neat trick I've seen with supply points is to have certain ones NOT connected to rail lines. A supply hex that lies on a rail line will spread its beneficent glow everywhere; one that's not won't. Manipulating the location of supply hexes, roads, and railroads makes it possible to vary the supply available in different theaters and at different times -- for example, one could have an area with an off-rail supply hex and an event creating a second, on-rail supply hex to reflect more supplies starting to flow to that particular area without raising overall supply. (Colin)

Not directly related to the EvEd, but you can emulate a supply point of less than full supply value if you place a supply point in a distant hex. Making the hex distant does not affect ground movement, yet unfortunately it affects bombardment ranges, making the distant hex safe from enemy artillery in some cases. (The fix which I dare not actually suggest would be another abuse of the system: put some Very Large ICBMs under a standard artillery icon in the other side's OOB.) (Peter)

Supply Radius

Setting a value above the default supposedly greatly increases interturn calculation times -- forgot what the default is, though.¹⁴ (Colin)

Manual says 4 hexes. (Ben)

This is very useful feature in creating different consequences that nature and weather causes for army logistics. Shorten the radius at spring thaw and raise for the summer for example. (Unknown)

Theater Option

Commonly can be used to give player the option to declare war on neutral countries. Another event would need to be activated so that the neutral countries forces arrive as reinforcements or their formation orders are changed to an active roll. (Trey)

Could be used to allow the player to choose when to launch major operations. Example, there could be a theatre option for a Germany player to launch Operation Barbarossa. When activated, the event could trigger other shock values, air shocks, theatre recon, supply levels, air transport, sea transport, etc. Another activation could be used with a delay feature that could level out all the bonus affects of opening the operation after a period of time. (Trey)

It seems that the **Theater Option** Event itself is considered to have occurred whether or not the player selects it. Therefore, don't have the **Theater Option** trigger the effect you want directly: have it trigger a blank News Only event that in turn triggers the desired event. The **News Only** event is the one that will only occur if the **Theater Option** is selected. (Colin)

This may seem obvious but I didn't understand it myself at first. **Theater Options** work by setting the action to activate an event which is otherwise destined to occur on turn 999. (Ben)

I prefer to use Ben's solution (but by convention I use Turn 500). I've also found out that if a range is attached to the Turn 500 event, it actually works when activated by a **Theater Option**.¹⁵ (Curt)

Theater Options do not recycle properly with the **Enable Event**. It's best to simply write a new event for

13 In TOAW III v. 3.4 under the New Supply Rules supply points can have variable levels of supply. Instead of a value of "Place Supply Point" or "Remove Supply Point", the event now expects a numerical value for the supply level of the point. A value of 0 removes the point.

14 In TOAW III supply calculations have been considerably accelerated.

15 Since TOAW III there are 999 even slots available. Better not to use Event 500 here. Instead follow Ben's advice and use event 999.

each iteration of the option. See Repeating Theater Options in the Miscellaneous section. (Curt)

Useful for giving private news to a player. (Richard)

If you want PO choosing the same event at random, you should remember about delay of 1 turn for PO event. (Jarek)

Cancelling a **Theater Option** (once it has already appeared) is accomplished by writing a second **Theater Option** event with the exact newstring and an Event activation of ~~500~~ 999 (as stated in the manual). Cancelling a **Theater Option** before it appears is accomplished using a Cancel Event event. This is not clearly stated in the manual.¹⁶ (Curt)

Theater Recon

In version 1.04¹⁷ this trigger no longer sets the actual number of theatre recon but has either a + or a - attached to it. The default is a + a minus you will actually see. This has a pretty big impact on some of the older scenarios most of which now have incredibly high recon ratings since in the old system if the recon was set at 25 and later an event took place that increased it the editor would set it at, for example 30, in the new system that is interpreted as 25+30=55. (Jeremy)

This can be used to simulate failing recon from loss of aircraft units for example. Simply tie unit destroyed in with -5 theatre recons and watch one side go blind as their air force is shot down. (Jeremy)

May cause incompatibility in PBEM if one player uses version 1.03 and the other player version 1.04. I have observed theater recon changing arbitrarily in such a situation. (Peter)

Use Chemicals

I've used shock in preference to this. The reason is that I want the use of poison gas to have a temporary and declining effect, not a permanent one – and the Chemical Event is both permanent and irreversible. Poison Gas is going to have one hell of an effect on Day One -- and much less thereafter. (Colin)

Victory +/-

This can be used to balance scenarios so that -- say -- securing and holding a reasonable beachhead anywhere along a coast will bring victory even though the defender still holds a majority of the VP hexes. The problem is that since the total number of VP's has increased, the range of reasonably likely outcomes that will constitute a draw also increases. It can be a trick picking values such that being driven back into the sea (or whatever) will constitute defeat yet holding any one major port will bring victory. (Colin)

Withdraw Unit/Army

If you modify your OOB after Withdraw Unit events have already been defined, it could mess up the events since they might not point to the same unit. You can get around this by re-defining the event after making your OOB mods. (Ilkka)

WATCH OUT. Sometimes, Norm knows why, this is a big problem. It has been known to happen that once an event has been changed in the above way from an incorrect target unit to the correct one for the event editor to simply switch it back when it is closed. In this situation (with Withdraw Army) you have to find or create another uniquely named unit to withdraw. (Ben)

This does not withdraw units that are currently in the process of being replaced.¹⁸ These units still come

¹⁶ Since TOAW III this is event 999.

¹⁷ TOAW – A Century of Warfare, version 1.04

¹⁸ This has been fixed in vanilla TOAW III.

back. They will not be rebuilt a second time. (Jeremy)

The event engine reads all the units from first force before second force and starts at the top. If you have units with the same name it and enter one into the field it will default to the first unit with that name that it comes upon. (Jeremy)

If a scenario is converted between versions 1.03 and 1.04, unit references in the event engine may be lost. Always check your event list after such conversions.¹⁹ (Peter)

Event General

User Interface

I always make a excel doc and do the actual programming there. In that way I can make a very nice structure. I can upload a template to the site to show this. (Pelle)

When defining an event, the target effect event can be any number from 1 to 500. But the trigger event, for **Event Activated** and **Event Cancelled**, must already be a valid defined event. (Curt)

Inserting events will probably screw up later events which point to other numbered events, ie a Theater Option activated by event no 123 will now be activated by event no 124.²⁰ (Erik)

Troubleshooting and Optimization

If you have an event that refuses to activate make sure that the event displays all the normal information common to this event. I once had a **Force Occupies** event that did not display trigger range and even though I wanted the default of 0 the event would not activate. If your event is broken scrutinize this. (Jeremy)

Simple linear EvEd forms work quicker in the game (Richard)

Perpetual Loops and Special Combinations

Simple repeating loop:

```
Event #1, Turn 1, News Only
Event #2, Turn 1, Enable Event 1
```

With this loop Events #1 and #2 will activate every single turn. Event #1 will contain the effect that you want to be repeated. The basic premise behind a **Turn** based loop is that once the event is re-enabled, it automatically executes as long as the current game turn is past the turn indicated in the event. A separate **Activate Event** is not needed. And in this case Event #2 activates every single turn, in essence constantly keeping #1 active. (Curt)

Delayed repeating loop:

```
Event #1, Turn 1, News Only
Event #2, Ev Act #1, Enable Event 1, Delay/Range = 3/1
```

To have an event automatically activate, for example, every 3 turns you change the **Enable** event's trigger to **Event Activated** and then set the delay/range to the desired level. (Curt)

IF loop:

To create a repeating branching event loop based on a probability, use the following template:

¹⁹ This also applies to conversions from ACOW to TOAW III.

²⁰ This doesn't apply anymore to TOAW III. Events are automatically renumbered in such cases. BUT: Better check manually, too.

Event #1, Turn 1, News Only, Probability = 50%
Event #2, Ev Can #1, News Only
Event #3, Turn 1, Enable Event #1
Event #4, Turn 1, Enable Event #2

In this case, each turn Event #1 has a 50% chance of activating. If it does not, then Event #2 will activate (and you could build a probability into that also). Events #3 and #4 just recycle them for the next turn. If you want to do a delayed IF loop with a probability, it will require 2 more events since your re-enabling events will have to cover both **Event Activated** and **Event Cancelled**. (Curt)

The trigger allows to create aspirations for occupation/liberation of defined area multi-event:

Event #1, Turn 1, Cancel event #3
Event #2, Turn x, Enable event #3
Event #3, Force 1 occupies (a,b), range>0
Event #4, Event activated (#3), Cancel event #5
Event #5, Turn x+y, Force 2 VP+

Force 2 gets VP if there is no Force 1 activity between turns x and x+y on the area. The area should be big enough to never be completely occupied by Force 1. (Jarek)

Variable Value = x or lower as a trigger (Order of Events)

In one of my scenarios i wanted the supply radius to be dependent on the EEV (Event Editor Variable) value. If the EEV reaches a certain level the supply radius should be 10. Below this EEV value it should be 8 and the events should be infinitely repeatable. Here it simply was the order of events that brought this to work.

Event #1, EEV = x, News only
Event #2, EEV = x+1, News only
Event #3, Event activated #1, Supply radius 1 = 8
Event #4, Event activated #2, Supply radius 1 = 10
Event #5, Event activated #2, Enable event #2
Event #6, Event activated #1, Enable event #1
Event #7, Event activated #3, Enable event #3
Event #8, Event activated #4, Enable event #4

When the **Variable Value** reaches x+1 or higher event 3 will fire before event 4 - event 4 will fire after event 3, overwriting event 3 and set the supply radius to 10. When the **Variable Value** drops again to x or lower event #1 will be triggered again.

Miscellaneous

Simulating Mine Fields

A minefield at sea can be simulated using one of the exclusion zones. When a coastal battery is destroyed, use a **Unit Destroyed** and **Remove Exclusion Zone 1** event combo to remove the minefield. (Pelle)

Repeating Theater Options

The **Theater Option** event does not properly recycle with **Enable Event**. But you can use an on-map unit moving between 2 selected points, in conjunction with some **Force Occupies** events to toggle between 2 different effects. In CSV I use this to allow the player to toggle between Free Fire and Restricted Fire

modes. (Curt)

Another on-map system to replace **Theater Option** is having the player disband a particular unit. Then write a Unit Destroyed event to apply the effects. Furthermore, you can easily recycle these events by allowing the disbanded unit to reconstitute and recycling the event. The application is slightly different from the previous paragraph. One is used to switch between 2 different states, and the other is used to create simple recycling options. (Curt)