The Operational Art of War III™ (v3.4.0.200)

Welcome.

Thank you for playing The Operational Art of War III™! We are always looking for ways to improve your gaming experience. For the latest information on the game, please go to the Matrix Games web site at www.matrixgames.com.

Below you will find the latest and greatest information on The Operational Art of War. Information in this document supersedes that in the official game manual.

The first time that you start a game in TOAW III, you will be presented with an opened directory tree, showing the expanded Scenarios directory. You are asked at this time to select a scenario directory. First time players may wish to select the Tutorials directory as their default directory, so that they can play along with one of the guided tutorials in this directory. It is a good idea to open the reader for the scenario document that accompanies each tutorial and either print it, or alt-tab between it and the game as you first play. This is done by clicking on the button circled in red, in the screenshot below, when you have selected, or highlighted, a scenario to play. All scenarios with special documentation will have the button appear with text lines in it, when highlighted. Scenarios without special documents will only display a "blank" button, when highlighted. For new players, the recommended order of playing is the following: Tutorial, Anonymous Heroics, Tannenberg 1914, Kasserine 43. All but Anonymous Heroics were based on earlier versions of the game, so there may be slight differences in the described, or illustrated GUI (Graphical User Interface). However, all the basic concepts of earlier versions of TOAW apply to TOAW III, as well. Note: If you do not have Microsoft Word installed, you may have difficulty with some of the .doc format documents. In this case, please take advantage of the fact that Microsoft offers a free file viewer for its MS Word files. You can get it by clicking on this link, or copying and pasting it into your web browser. http://www.microsoft.com/downloads/details.aspx?familyid=95E24C87-8732-48D5-8689-AB826E7B8FDF&displaylang=en

After cutting your teeth on the tutorials, feel free to be adventurous and try selecting scenarios from any represented period that interests you. When selecting a scenario, before deciding to play it against the computer, make sure that it is PO enabled, for at least one of the sides. If not, then you can always play solo, in hot seat mode. Best however, is playing against another human player. There are several active communities on the Internet, where players from all over the world get together, to play against each other in competitive ladder play, as well as just for fun. We hope that you too, will get involved with PBEM play and enjoy the camaraderie and challenge that human-to-human play will bring.

Grognards who prefer the Classic TOAW look, rather than the new style terrain graphics can easily switch back to them by choosing the Windows Start Menu item "The Operational Art of War III > Extras > Install Classic TOAW Graphics". To switch back to the new terrain, simply select "The Operational Art of War III > Extras > Revert to TOAW III Graphics". These options can be chosen repeatedly.

Troubleshooting:

Ensure that your system meets the minimum system requirements. These are found on page 7 of the manual. **Contrary to the beta version of this document, there is now a functioning Windows 98 version of 3.4. Some features (tool tips, .png graphics) may not work with it. There is also a "Slow" version intended for pre-2004 machines – slower operation. Users can try each and use the one that works best on their machine**. Also, ensure that you have the latest video and sound drivers available for your system and that you have upgraded to the latest version of DirectX from Microsoft. The vast majority of reported problems are resolved by upgrading all drivers and DirectX to the latest versions.

If you are still experiencing problems with the game, please contact support@matrixgames.com or post in the Operational Art of War Support Forum at www.matrixgames.com. Please provide as much detail on your issue as soon as possible.

To obtain optimum game performance, close all other applications before beginning a game.

Online Resources:
English Forums:
> Official Forum
> http://www.matrixgames.com/forums/tt.asp?forumid=225
> Gamesquad
> http://forums.gamesquad.com/forumdisplay.php?f=10
> Blitzkrieg Wargaming Club
> http://www.theblitz.org/message_boards/forumdisplay.php?fid=15
> TDG
> http://www.savemstateathletics.com/tdg/index.php
> Developer's Blog
> http://www.operationalwarfare.com/

Chinese Forum
http://www.toaw.org/bbs/forumdisplay.php?fid=19

German Forum
http://www.si-games.com/forums/forumdisplay.php?f=167

Italian Forum
http://www.netwargamingitalia.net/forum/forumdisplay.php?f=38

Polish Forum
http://www.csto.pl/viewforum.php?f=79

Change History:

v3.4.0.200 10/31/2010

I.   PLAYER-TURN EQUALIZATION (AKA "NEW TURN ORDER RULES") (Optional):
There is now a choice to use equalized player-turns. The old pre-turn calculation method used to do all the calculations for supply, recovery, and other items at the start of the first player turn. This was a bit unfair (usually to the second player). The new turn order splits that processing into three parts. Air-Combat, Events, and Weather effects still happen at the beginning of the game turn. But everything else now happens at the beginning of each respective player-turn instead. Clouds even move between player-turns – just without weather effects.

Note that equalization will mean that enemy units cut off from communications in the friendly player-turn will be unsupplied in the immediately following enemy player-turn regardless of side (previously an unfair advantage for side-two). Also, note that movement recovery is done twice for each side (start of each player-turn). This will clear

the "Retreated" condition for both sides during their own player-turn (previously an unfair advantage for side-one). It may even make use of reserve deployments more palatable to players.

Furthermore, neither side is assumed to have 100% visibility into their own territories during the enemy movement phase (previously an unfair advantage for side-two). Rather, detection of enemy moves into friendly territory will now depend upon the friendly Theater Recon Level or friendly units. Therefore, enemy units will now be better able to slip around either player without notice.

II.   NEW SUPPLY RULES (Optional):

There is now a choice to use a new hex supply-level calculation method. In the old method, there were only four supply-levels (100%, 75%, 50%, and 25%), and off-road locations were penalized regardless of how far they were from a supply point. The Old Supply method is still available, and has even been speeded up a bunch. But New Supply is speedier still. And we hope you'll find that it is more realistic as well.

In the new method, we use a formula based on the movement points that would be expended by a virtual "Supply Unit" (which has motorized movement and a 50% unit density) to get to the location. Note that this will mean that very dense locations will likely suffer some supply reduction due to added movement costs of that density condition (stacking limits, however, will not block supply). Supply beyond major rivers will depend upon bridge status or major ferry ability. Major Escarpments now block supply. Contiguous, unbroken Rail lines that connect back to a supply source are still treated as if every hex on the line was that supply point. If the line connects to multiple supply points of variable values (see below) then the strongest one is broadcast over the line. Friendly units in flooded marsh, badlands, dunes, etc. locations that are unreachable by the virtual supply unit but that are nevertheless adjacent to a normally supplied location receive one-quarter the supply that was in that adjacent location. And there's a lot more complexity behind the scenes (beyond those factors) to get it all to come out right. Note that Naval, Air, and Helicopter units are still supplied as they were under the Old Supply Rules.

The exact formula is: **1.10 / (1.375 ^ (SupplyDistance / SupplyRadius))**. This is illustrated here:
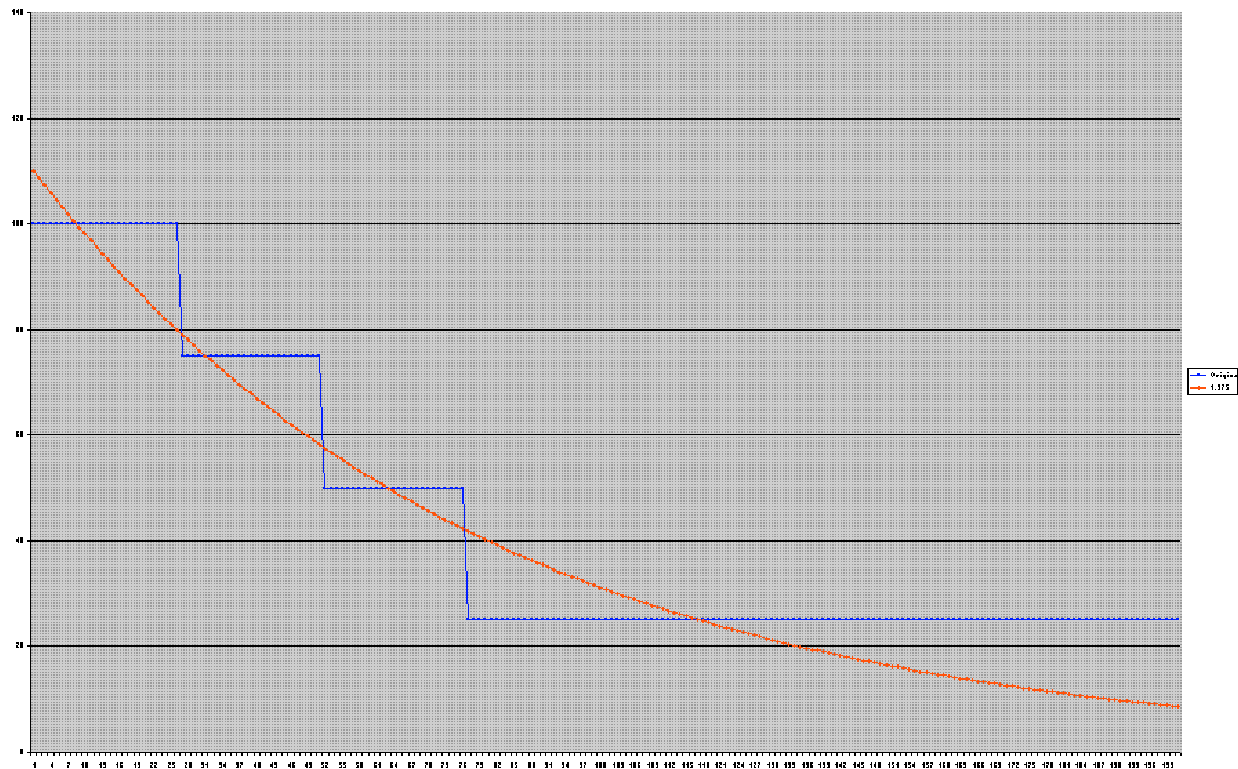
Y-Axis is percent of Force Supply. X-Axis is distance from the Supply Point in movement points (MPs). The blue curve is the old way; the red curve is the new way. Note that the example supply radius was 25. This was what we considered the "best fit" curve. Note that one consequence is that the supply rises to 110%-of-full right on the supply-point. That may seem strange at first, but it's part of the curve fitting process. Just think of it as a bonus for being right on the supply point. Also, note that under this formula, the supply level will continue to attenuate – perhaps all the way to zero at some point. It will still be "Supplied" at that level, though – but there can now be future effects added that may further exploit this.

Supply Units still have their enhanced effect: they effectively treat a location as if it were one supply radius closer to the supply point, provided that the location was within a supply radius of the supply unit.

Again, this is illustrated here:
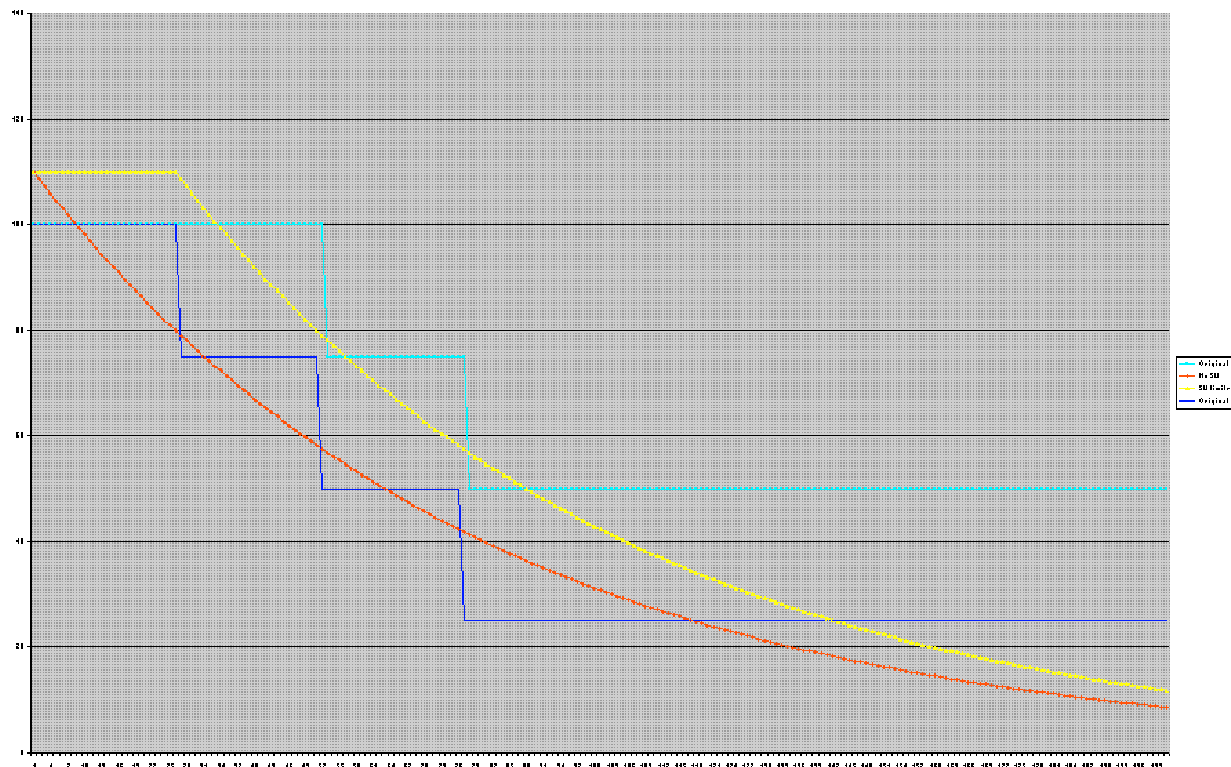
The blue and red curves are as in the previous plot – the old and new ways <u>without</u> supply units. The cyan curve is the old way <u>with</u> supply units. The yellow curve is the new way <u>with</u> supply units. Note that the yellow curve is clipped to no more than 110%-of-full. Again, the example supply radius was 25. Note that at very long distances, the impact of the new method is very pronounced.

For example, take the case of the supply radius being five MPs, and the supply unit being ten MPs away from the supply point and the unit being four MPs further away from the supply point (therefore four MPs from the supply unit). Because the unit is less than five MPs (the supply radius) away from the supply unit, we enhance its supply by treating it as if it were five MPs closer to the supply source (in other words, nine MPs away instead of fourteen MPs away). Also, note that all supply units now remain functional, even if they are within a supply radius of another supply unit (but there still is no combined effect – yet).

Variable Supply Points: Under these New Supply Rules, designers can also set supply levels for supply points (either initially or through events) to values between 1-250%-of-full. Default is 100%, of course. This is somewhat similar to the previous "kluge" of putting a supply point in a distance hex – but without the impact to ranges of the distance hex. When there are multiple points of different values, locations trace back to the point that will give each location the best supply value – even if further away.

Note that the new Event Effect is a modification to the "Place/Remove Supply Point" effect. 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. Similarly, "Place Supply" in the Editor is the same in that it will ask for a supply value and a value of 0 removes the point.

III.   ADDRESSING "ANT UNIT" TACTICS:

There are two new features that attempt to make the employment of "Ant Units" (very small and inconsequential units relative to most units in the scenario) useless. (And see the enhancements to RBC rules in section IV below, that will further effect this.)

1.   RBC Escape from blocked retreat path: Surrounded defending units that are forced to retreat from combat and have no other path of retreat will get to attempt to breakout via RBCing any of the surrounding enemy

units. All qualifying defenders get to attempt the RBCs until a path is cleared or all have failed against all blockers. This will require the use of substantial forces in all possible paths around the defender if that defender is to be denied a retreat path. "Ants" won't work.

2. **Assault Ratio Rules:** The benefits to the attacker artillery strength, the defender supply cost per round, and the prevention of counterbattery fire from a ranged defender are no longer guaranteed just because there is any ground-attacking unit, regardless of the size or composition of that unit. Rather, receipt of these benefits are now dependent upon a new attack parameter called the "Assault Ratio" (AR for short).

The AR is 100 times the ratio between the Attacker Assault Strength to the Defender Defense Strength. The Defender Defense Strength is determined just as it always has been – total defense strength of all defenders in the target hex (but without support). But the Attacker Assault Strength is new, and sort of complicated to explain. First, it only includes direct ground attackers – no support. Second, it only includes the active equipment of those attackers. Finally, of that equipment, it totals the AP and AT strengths in proportion to the contribution of armored and soft equipment to the Defender Defense Strength. So, if the defender is all armored equipment, only the attacker's AT strengths would be totaled. If the defender is all soft equipment, only the attacker's AP strengths would be totaled. If half the defender's defense strength is from soft equipment and half armored, then half the attacker's AP would be totaled with half his AT, etc.

Once determined, the AR of the attack is displayed in the Attack Planning Dialog (subject to Fog-of-War) as shown below:

```
Our Attack: 64+44        Enemy Attack: 30+29?
Our Defense: 31          Enemy Defense: 30?

Our losses will probably be heavy. (AR=104)
The probability of success is very poor.
```

Then, the AR is used to determine the level of benefit to those three assault factors above. If the AR is 100 or greater (Attacker Assault Strength is at least equal to Defender Defense Strength) then all the benefits are automatically received – just like for all attacks before. But, if it is less, the chances increase proportionately that the benefit level will decrease from Full to Partial. (For example, at an AR of 50, there is a 50% chance of that). At less than 10, the chances increase proportionately that the attack could even be treated the way a pure bombardment was effected before (provided it has any directly-assigned support). (For example, at an AR of 5, there is a 50% chance of that). At 0, it is guaranteed to be treated like a bombardment – again, _if_ it has directly-assigned support.

The three benefit levels are shown here:

Benefit Level / Factor	Full	Partial	None With Spt	None Without Spt
Defender Supply Cost/Round	10	1	0	0
Defender Artillery Cost/Round	5	0.5	0	0
Defender CtrBtry Cost/Round	n/a	n/a	10	n/a
Attacker Artillery Bonus	X10	none (X1)	none (X1)	n/a
Indirect Artillery Support	Yes, X10	Yes, X1	No	Yes, X1
Counterbattery Possible?	No	No	Yes	No
Ground Assault Takes Place?	Yes	Yes	No	Yes
Check1: AR >= Rand (1-100)	Pass	Fail	Fail	Fail
Check2: AR >= Rand (1-10)	n/a	Pass	Fail	Fail
Combat Report Label:	Attack	Weakly Attack	Bombard	Very Weakly Attack

Red items are where this feature differs from the old way. "Artillery" applies to any supporting ranged unit (including air units). Note that the Full column is identical to the way assaults were always resolved before. The None/With Spt column is the same as the way bombardments were always resolved before. The Partial column is sort of in-between. Note that there are two random checks made against the AR that determine which benefit level is received. Finally, note that the 0.5 supply cost is effected via a random check (randomly 0 or 1 @ 50% each).

The benefit level received is displayed in the Combat Report as shown below:

If the message says "attack", then full benefits were received:

If it says "weakly attack" then partial benefits were received:

If it says "bombard" then no benefits were received (or the attack actually was a bombardment):

Finally, if the message says "very weakly attack", then no benefits were received <u>and</u> the attack had no directly assigned artillery support:

While this probably sounds very confusing, (and there is a great deal of complexity behind the scenes that has been omitted from this description) all players need to understand is that to ensure full benefits, **keep the effective strengths of the forces actually assigned to ground-assault the defenders at least equal to the size of the defenders' defense strengths**. (That means keeping the AR equal to 100 or above). The farther below 100 the AR is, the more risk that less and less of the above benefits will be received. Note that defender terrain and deployment enhancements are ignored for purposes of this effect (we're just sort of comparing relative effective unit sizes). But entrainment/embarkment, etc. are not ignored. Be aware that <u>support</u> Loss Tolerances will now determine the number of rounds expended <u>if</u> the assault becomes a bombardment (like in a normal bombardment).

Note that, other than determining the above effects, the AR and Attacker Assault Strength values are not used in the resolution of the actual combat. Passive equipment still participates as before, provided the AR is otherwise not rendered small enough to convert the attack into a bombardment. But that will be the case if the assault is pure passive (AR will equal 0). Note that if there is a situation where players want a pure passive or otherwise very tiny attack to actually assault, then they should not provide it any directly assigned support, and then it will do so.

We expect that this feature will render the gamey "Supply Sucking" and "Bombard to Victory" tactics obsolete. Now, to "suck" supply from a defending stack, the attacker will have to commit comparable frontline forces. And bombardment will no longer benefit from inclusion of a "throwaway" ground attacker.

IV.   CHANGES TO THE COMBAT MODEL:
1. AAA lethality was scaled down by a factor of 0.4.
2. Adjacent artillery/HQ now will automatically bombard rather than assault if over half their firepower is from ranged equipment. (Note that making this player-optional via popup was too complicated for now). Adjacent Naval units now always bombard regardless. So, this will impact naval combat simulation. The "Bombardment Cursor" movement path (in place of the "Assault Arrow" movement path) will appear if this feature is triggered (best seen if "Movement Paths" are set to "Floating"). To review, these cursors are shown here:

In addition, there are now animated cursors (see below) that, if used, can also alert the player to the type of combat that will result.
3. A bug in Norm's code that limited the number of shots that each side could take was fixed. This is an average of about 2 per side. It can vary between 1 and 8 depending on the ratio of armored and anti-personnel equipment.

This may help with ants, lone tanks and some other items. This only affects the number of shots and not the chance of taking a shot or the chance of penetration.

4. RBC chances are adjusted for faster units (proportionate to their speed advantage) to a max of a 2:1 additional advantage. This doesn't apply to fixed defenders, though.

5. RBC stands flag will be cleared when a combat phase inflicts over 50% losses to the defenders – allowing such defenders to then be subject to more RBC attempts in that same turn.

6. RBC at greater than 8:1 odds now proportionately decrease the chance of the unit standing. So, if the odds are, say, 100:1, then the defender will be very likely to be RBC'd. But, note that those odds still incorporate the defender's deployment/terrain multiples.

7. RBC code allowed separate attempts against each individual unit in the stack. This has been changed so that there is only one RBC attempt against the entire stack – if successful, the entire stack retreats.

8. RBC code now requires 50% more equipment (15% of the density penalty threshold instead of 10%) to avoid the flanked penalty during any RBC attempt.

9. There is now a combat penalty for poor cooperation levels. Full Cooperation is unaffected. But Partial Cooperation scales combat strengths by 83%. And No Cooperation scales combat strengths by 67%. This applies to both attackers and defenders. The scaling is applied to the entire attack or defense regardless of how few or how inconsequential the uncooperative units in the combat are, or whether they are ground-assaulters or ranged-supporters. Note that players can determine the cooperation level of an attack by viewing the Attack Planner Flags. But the Attack Planner does not show the reduced combat strengths – players have to figure that themselves. Note that this was done to overpower an old bug in TOAW that perversely had somewhat benefited non-cooperation levels in combat.

10. Defender terrain now affects retreat from combat chances and defender deployment's effect on it has been increased somewhat (best case for defender applies – no combinations). This is illustrated here:

Terrain	RFC Adjustment
Fortified Line, Fortified Deployment	84%
Dense Urban (or Ruin), Badlands, Entrenched Deployment	65%
Mountain, Dunes, Urban (or Ruin), Bocage	50%
Forest, Jungle, Hills, Wadi, Defending Deployment	26%

The value is the chance the RFC will be canceled.

11. Defender terrain effects on defense factors are now combined with defender deployment effects on defense factors (but only as the "Square Root of the Sum of the Squares", not linearly). Note that terrain effects still don't combine with each other, though – only the most beneficial is used. This is illustrated here:

		Mobile	Defend	Entrench	Fortify
Infantry Defense Multiplier		-	2.00	3.00	8.00
Fortified Line	8.00	8.00	8.25	8.54	11.31
Dense Urban, Badlands	4.00	4.00	4.47	5.00	8.94
Mountain, Dunes, Urban, Bocage	3.00	3.00	3.61	4.24	8.54
Forest, Jungle, Hills, Wadi	2.00	2.00	2.83	3.61	8.25
All others	-	-	2.00	3.00	8.00
		Mobile	Defend	Entrench	Fortify
Vehicle Defense Multiplier		-	-	1.50	3.00
Fortified Line	3.00	3.00	3.00	3.35	4.24
Dense Urban	1.50	1.50	1.50	2.12	3.35
All others	-	-	-	1.50	3.00

The value is the combined defense multiplier.

V. CHEAT PREVENTION:

There is now a PORandomSeed parameter in the .INI file. If set to 0 (default) it will always use the next random number. If set to -1, it will always use the random number stored in the save file. If set to a number it will use that number. PBEM games are always treated as -1. This means that unedited reloads of a .PBL PBEM game will always produce the same results. This also means that Ralph will be able to reproduce bug reports.

Note that this guarantees that reloading can't tamper with PBEM interturn calculation results via the reloading cheat. It will also make it more difficult to change PBEM combat results via the reloading cheat (but not render it impossible, of course).

The handling for PBEM End of Turn .sal files has been revised such that it now allows their reloading. That will no longer generate a cheat message, and there is no longer a save on exit prompt.

VI.   INTERNATIONALIZATION AND CUSTOMIZATION:

Added XML language support, including the XML language files. They can be used wherever the DLL files are used. The system uses GameText.XML. The algorithm for finding the XML files is the same as for finding the DLL files. F11 key exports a NewGameText.XML file using the currently loaded scenario or language for easy transition.

To review: F4/F5 keys dump/read the OOB in XML (must be in Force Editor); F6/F7 keys dump/read the Event List in XML (must <u>not</u> be in Event Editor). The File pulldown has Open/Save Map in XML and Open/Save Game in XML options (must <u>not</u> be in Force Editor).   F8 key now saves the scenario so it will run using TOAW version 3.2. Note that TOAW 3.4 no longer supports Windows 98, and this key may allow new scenarios to have versions converted to that platform.

Added support for Unicode characters (for Chinese and other eastern character sets). Designers who want to use them in their scenarios should add the string "utf-8" to the scenario description. See the "Mobile Operations" scenario for an example. Players who want to see Unicode characters will need to modify their "Opart 3 Fonts.ini" file Unicode section as follows:

[Unicode]
UnicodeFonty=-4
UnicodeFontx=0
UnicodeFont=Y

There is an included file named: "Opart 3 Fonts Chinese.ini" in the main folder that has these modifications already, and example fonts to use (they must be specifically labeled as Unicode fonts). This feature may only work in Windows 7 for now.

VII.   SOUND ENHANCEMENTS:
1. Added two volumes, one for the background sound and one for the effects. They are controllable through the .ini file. They go from 1 to 100. (See the "Page Two" shot below).
2. Also added a left-right quality to the sound. You can hear the sound occurring on one or the other side of the screen.

VIII.   GRAPHICAL ENHANCEMENTS:
1. TOAW now exports to JPG instead of BMP for the "Create Map Image" feature. There is a JPQuality .INI entry that can be between 1 and 100. A setting of 100 is full quality.   (See the "Page Two" shot below).
2. "Movies" option now defaults to saving only the micromap. There is an OPART.ini switch to restore the save of the full map, if desired.   (See the "Page Two" shot below).
3. Added new 'Movie' option that will try to create a movie given sequentially named scenario files. Open a scenario and hit create movie to create a movie.
4. Edited the Supply.bmp and s_Supply.bmp graphics to better display Windows supply fonts. Placed in the Altgraphics folder.
5. Added a couple of suites of the "damaged bridge" graphics to the "Patch 5 Graphics.zip" file in the Altgraphics folder. (This zip also contains the placename bitmaps, the animated cursors, and the new Supply.bmp files.)
6. Custom animated cursors are now available. There is one for ground assault, one for artillery bombard, and one for air bombard. They can't be turned off, but players can just move their files from the Altgraphics folder to a graphically inaccessible folder if they don't desire to use them.
7. Added support for Alpha Channel for .PNG files. A map-tile and unit-icon graphic set using the Alpha Channel is already included in this update. They even include a suite of files for the "Huge" view. It can be turned on/off using the Advanced Rules page 2 switch (See the "Page Two" shot below). Alpha channel files can be edited using "The Gimp". See: http://docs.gimp.org/en/gimp-using-web-transparency.html. Also, there is now an article on how to recolor the .png countersheets in the Manuals sub-folder.
8. Placenames (and Placename Bitmaps – see below) now scale with zoom level (Windows Fonts only). Doubled in Huge View, halved in Small View. Tiny View no longer displays placenames.
9. **<u>Alternate Placename Fonts and Bitmaps:</u>**
    "#1"-"#3" in a placename selects the alternate Placename font 1-3. There are three optional placename fonts in addition to the standard placename font. The actual fonts are set in the "Opart 3 fonts.ini" file.
    "<1"-"<9" in a placename selects the mapOptional1-9 bitmap. You can select multiple bitmaps. (There are nine placename bitmaps provided in the Altgraphics folder – designers can make their own if they prefer).

Examples:

"#1Font1" will display "Font1" on the map in the PlacenameFont1 style.

"<1bitmap1" will display mapOptional1.bmp and "bitmap1" on the map in the standard font.

"#2<1<3Manpower Factory" will display mapOptional1.bmp, mapOptional3.bmp, and "Manpower Factory" on the map in PlacenameFont2 style.   Here's a shot illustrating the use of these features:

Note that the canned bitmaps are:
1. Factory
2. Refinery
3. Manpower Center
4. Oil Field
5. Mineral
6. Reforger site
7. Yellow Diamond
8. Red Star
9. Stop Sign

They are situated within the hexes so that some can be combined on the same hex without overlap. Again, designers can create their own bitmaps to substitute for any of the above. Note that, like any other graphical file, they follow the folder hierarchy rules.

The four canned placename fonts vary as follows (all are Times New Roman):
1. Standard - 10 size, silver (perhaps for normal cities)
2. Font1 - 20 size, silver (perhaps for big cities)
3. Font2 - Standard size (10) but blue (perhaps for terrain features)
4. Font3 - 7 size, silver (perhaps for tiny cities)

Again, anyone may revise these fonts however they desire within their own "Opart 3 fonts.ini" file to suit their own tastes.

Finally, note that the "Opart 3 fonts.ini" file now has a suite of fonts as follows:
1. Document Font
2. Medium Font **(Recommended to not use a Windows font – stick with the original bitmapped font).**
3. Small Font **(Same as above).**
4. Objective Font
5. ToolTip Font
6. Supply Font
7. Small Supply Font
8. Placename Font
9. Placename Font 1
10. Placename Font 2
11. Placename Font 3
12. Unit Info Small Font **(Same as above).**
13. Unit Info Medium Font **(Same as above).**

The reason the Medium Font should remain a bitmapped font is that there is a vertical justification issue we could never clear up for Windows fonts in all the Text/Number Entry Dialog boxes (example: Placename Entry). Text entry uses the Medium Font. Furthermore, (and this applies to all four of the specified fonts) Windows fonts don't generally support SS Runes. Since many scenarios use these in Unit names, and these

fonts display the unit names, they also should continue to use the bitmapped fonts (which do support these special characters).

IX.   USER INTERFACE:

1. Added .ini option to disallow mouse wheel zoom.
2. Mouse wheel zoom should work in all screens (if enabled – see 1. above).
3. Next/Previous combat on the combat planning dialog and the P key will now cycle through most potential combats instead of just actual combats.
4. B key pulls up a "Placename Search" text box. Map goes to placename that matches the text entered. Partial name entries go to multiple matches in sequence. This works in both the game and the editor.
5. C key now closes the Stack Dialog
6. Shift-L now increments the Loss Tolerance and updates all units in the stack to that Loss Tolerance.
7. U key now closes the Unit Dialog
8. F key now closes the Formation Dialog
9. Shift Key (including Caps Lock Key) now speeds up individual battles.
10. Arrow keys work in the game selection screen.
11. Unit Info, Formation Info and Stack dialog now put the cursor back where it was when they go down.
12. Advanced Game Options Dialog split into two parts. Page one (Game Options) has the options that can't be changed for a PBEM game in progress – and affect both sides. Page two (Player Options) has the options that can be changed – and only affect the viewing side.   The "Set game options" button on the first control screen will cycle through both of them in sequence. But once in the game, they are accessed separately via the "Play" pulldown menu:
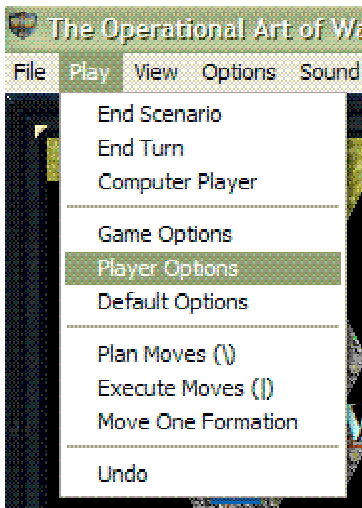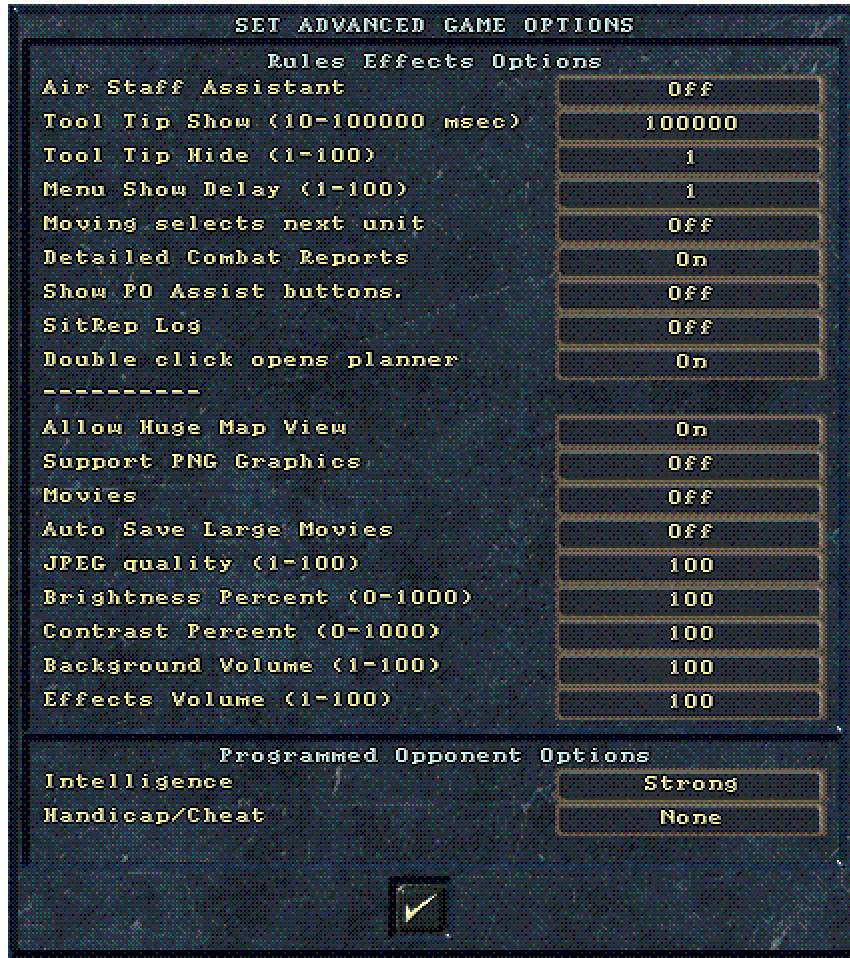

Here are shots of the two pages:
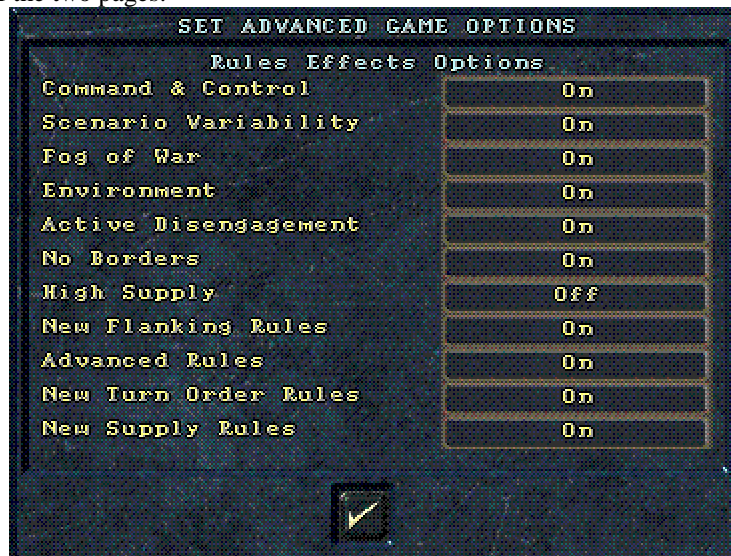
Page One (Game Options)

Note that, now, to use "Standard" Rules, the "Advanced Rules" button on this page must be turned "off". There is no longer a choice for Standard Rules vs. Advanced Rules on the menu pulldown.

```
SET ADVANCED GAME OPTIONS
        Rules Effects Options
Air Staff Assistant                    Off
Tool Tip Show (10-100000 msec)       100000
Tool Tip Hide (1-100)                    1
Menu Show Delay (1-100)                  1
Moving selects next unit               Off
Detailed Combat Reports                 On
Show PO Assist buttons.                Off
SitRep Log                             Off
Double click opens planner              On
----------
Allow Huge Map View                     On
Support PNG Graphics                   Off
Movies                                 Off
Auto Save Large Movies                 Off
JPEG quality (1-100)                   100
Brightness Percent (0-1000)            100
Contrast Percent (0-1000)              100
Background Volume (1-100)              100
Effects Volume (1-100)                 100

      Programmed Opponent Options
Intelligence                        Strong
Handicap/Cheat                        None
```

Page Two (Player Options)

Note that now, one player can have the Air Staff Assistant on, while his opponent keeps it off.

13. Note that the settings for "Tool Tip Show" and "Tool Tip Hide" turn Tool Tips on and off (see 27 below). And "Menu Show Delay" turns the movement popup window on and off (see 29 below). While players should not find effecting their choices difficult, there is, nevertheless, an aide to assist with it. Back on the "Play" pulldown above, note that there is an option of "Default Options". Selecting that calls up this dialog:

```
GAME RULES
Which game rules
do you wish to
play with?
Updated Defaults
Classic Defaults
    Cancel
```

Selecting "Updated Defaults" will set those three values to use Tool Tips and skip the movement popup (TOAW will employ these two new features). Selecting "Classic Defaults" will set those three values such to turn both features off (TOAW will function like older versions did).

14. Formation display now allows the space key to reveal the map. In 'Elmer Deploy' mode, it shows the formation tracks.
15. OOB display now allows the space key to reveal the map. In 'Elmer Deploy' mode, it shows the formation tracks. It also centers the list on the current unit instead of the first unit.
16. The space key now turns the display of the units on and off when not in a dialog.
17. Stacks of naval/embarked units can now be issued group movement orders.

18. Map Drag: (In-game only). Place the cursor over an unoccupied hex, hold down the left mouse button, and drag the mouse to a new location. Release the left button and the map will be moved to the new location. Works for main map and micromap.
19. Unit Drag: (In-game only). Place the cursor over a friendly unit, hold down the left mouse button, and drag the mouse to a new location. Release the left button and the unit will move to the new location (or the movement popup will appear, depending on the "Menu Show Delay" setting).
20. P key calls up the Attack Planner for the indicated defender when the mouse is over a defender the active unit could attack. This can be an alternate method of avoiding an unwanted RBC in lieu of the "use a ranged unit" kluge.
21. Double-clicking on an enemy defender will call up the Attack Planner for that defense – regardless of whether it could even be attacked. This is another way to avoid an RBC, like the P key. This feature can be turned off by the Page Two "Double Click Opens Planner" button.
22. Putting the mouse over the Turn Info Panel displays the round info in the Info Panel.
23. Click anywhere on combat report dialog hides it like the spacebar does.
24. Hold the left mouse button down hides the combat report dialog like the spacebar does.
25. Whenever the combat report dialog is hidden by using the spacebar, 23, or 24, <u>and</u> the combat is off screen, the map recenters on that combat.
26. Exiting the Formation Report will no longer center the map over the active unit of that formation.
27. The SitRep Log now includes combat results information – and that information is also available in a .CSV file that can be employed in AARs. There are already user-made routines to exploit this.
28. The Attack Planner now highlights units that can't join the attack by displaying them with red "X"s across them.
29. There is now a text file, called "KeyCommands.txt", in the main folder that details all hot keys available.
30. There is an option in the Opart 3.ini file that allows a double click on a friendly stack to call up the group composition dialog. It is off by default, and can only be turned on within that file.
31. The Unit Info Panel now shows the icon-type when mousing over an enemy unit.
32. The End Turn Button now says it will end the turn, if no attacks are planned while mousing over it.
33. Cursor is over the exit button when the Air Unit Dialog is opened, instead of the Air Assistant Button.
34. Document button now opens all scenario documents simultaneously, if the scenario has multiple documents.
35. There is now an Opart 3.ini switch to set the screen resolution for TOAW. This setting, if chosen, will only be in effect while TOAW is running, and will revert to the PC's original setting after TOAW exits. This can be useful on hi-res screens that otherwise leave TOAW text too small to read.
36. Left clicking on an empty hex in the main map will re-center the map on that hex.
37. X hotkey saves a "*scenario name*.AI" file. This file contains the AI objective paths, perhaps edited using the Elmer Assist option (see below). If saved to any folder in the graphical hierarchy for the scenario, it will be reloaded whenever the scenario is run or loaded into the editor (be careful about this, designers). It also contains three settings for PO attack-odds limits as follows:

Threshold1: This is the odds (x10) required for Elmer to prosecute an attack with at least 7 rounds completed or if the Max Rounds per Battle is set. The default is 10 (1:1)
Threshold2: This is the odds (x10) required for Elmer to prosecute an attack with at least 5 rounds completed. The default is 20 (2:1)
Threshold3: This is the odds (x10) required for Elmer to prosecute an attack with at least 0 rounds completed. The default is 30 (3:1)

There is also a separate set of thresholds for the Berserk Strategic Bias. These settings would allow players or designers to fine-tune the PO in their scenario a bit more. But the file has to be edited in an XML editor (like XmlPad). See the "Red Thunder 1988" folder for an example of a .AI file.
38. **ToolTips:**
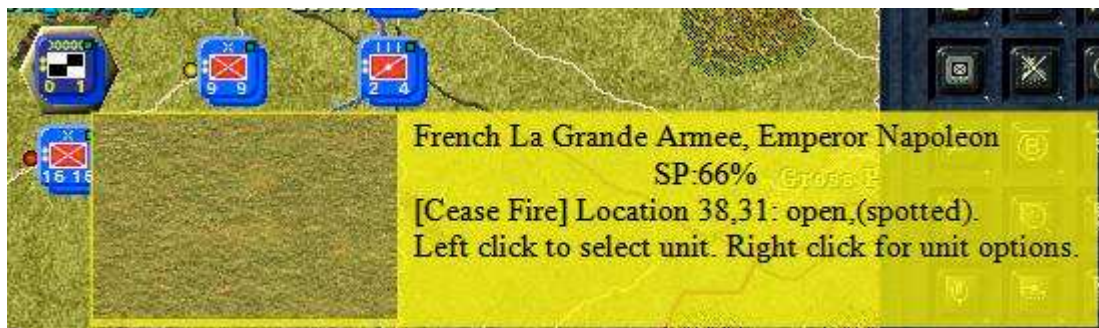
Includes a picture of the terrain like the 3D map.

The top line now may include the unit name.

The Second line now also includes SP: as the last entry It's currently the supply value x 100.

The Third line now includes

MP - Supply MPs to get here (Includes everything.)

RA - Supply Rail MPs to get here.

RO - Supply Road MPs to get here.

SU - Supply Distance to nearest Supply Unit.

Note that setting the ToolTipShow very high and the ToolTipHide very short (see the "Page Two" display above) effectively turns ToolTips off.

39. **In Game Elmer Assist:**

This feature allows the PO to take control of as many friendly formations as the player desires. Formations that he wants to control himself can be set to "Manual" orders (the old "Fixed" orders renamed).

Note the four new Control Panel Buttons above. These are shown if the eighth option on Page 2 of the Advanced Rules Options (see above) is "On".

The first is the "Formation PO Tracks" Button. It will show the PO Tracks for the current formation.

The second is the "all PO Tracks" Button. It will show the PO Tracks for all formations.

The third is the "PO Mode" Button. It will switch the program to place objectives mode.

The fourth is the "move PO" Button. It will cause the PO to move units.

Pressing F12 or clicking on the 'start circle' or Pressing \ or clicking the "PO Mode" Button causes the program to switch to the deployment place objectives mode.

Pressing F in this mode brings up the formation dialog allowing you to set the states, including letting the human have control of a formation.

<shift>-F12 or Pressing | or clicking the "move PO" Button causes the PO to move and set up attacks, but not execute them.

A typical sequence would be:

Press \ , press F12, click on the circle, or click the "PO Mode" button to switch to the objectives mode.

Press / or the "Formation PO Tracks" button (alternate: ? or the "all PO Tracks" button) to see the current objectives.

Select various formations and Change or Update the objectives as desired.

Press F to change the formation orders. Set formations you want to control yourself to "Manual".

Press \ , click on the circle or the "PO Mode" button to switch out of objectives mode.

Press | or the "move PO" button to have Elmer move.

Move the units you want to move.

Hit E followed by 1 to execute the attacks/end the turn.

Note that there is a "Elmer Assist Primer" document available in the Manuals folder that gives more detail on using this feature.

40. **Skipping the Unit Movement Popup:**

The "Menu Show Delay" (see "Page Two" display above) allows players to skip the popup when they move units. If it is set to a value greater than one, the most likely task will be executed automatically – skipping the popup. If the player wants to use the popup instead, he can hold the right button down until the delay expires, then make his selection. Note that setting the delay to one turns the feature off – the popup will always appear. Note that to expedite this feature, formerly "grayed out" items on the popup have now been removed instead.

Typically, this means that clicking the right mouse button will move the unit to the location or set it to attack, if there is an adjacent enemy unit in the target location. To move a group, entrain, plan the attack, etc., just hold the right mouse button down until the delay expires.

After completing the move, the active unit is automatically advanced to the next unit in the stack – unless the Page Two "Moving Selects Next Unit" option has been turned off. This option has no effect if the "Menu Show Delay" feature is turned off (the moved unit always remains the active unit, like in older versions of TOAW).

If the Page Two "Menu Show Delay" option is set to one, this feature is turned off.

X.   BUG FIXES:

1. Counterbattery fire was only happening if the artillery was on top of the stack.
2. Clipping maps in the editor should now work better.
3. Top map-edge reinforcements no longer have a problem with enemy control blocking their arrival hex – and conversely, reinforcements that arrive just one hex row below the top map-edge can now be blocked again.
4. Embarked helicopter units now only can travel by sea.
5. Minimize now works while a dialog box is open. Resizing still closes the dialog box.
6. Game select screen redone to work better. Moving the selection up and down also updates the current selection.
7. Weather bug fixed. The original intent was that the area around a weather boundary (3 hexes either side) could be from either zone, providing a mix. Unfortunately, the way this was done didn't properly freeze the water.
8. Weather bug fixed. The middle of the weather zone will be more overcast when it is warming or cooling. This is going to become more pronounced. Warm/cold fronts should be cloudier along the boundaries. This will become more pronounced if a zone is narrow.
9. Lag time in selection of units is fixed, except when crop circles are on.
10. Next/Previous units no longer auto-center. They will only center if the unit is off the map.
11. Mouse Wheel no longer active when dialog boxes are open.
12. Next/Previous buttons in the editor now update the unit panel.
13. Scenario dump no longer erroneously shows P1/P2 equipment as the same (as it had been doing in some cases).
14. Playback issues and unknown parent errors were fixed by not allowing zooming in the playback dialog.
15. Restored the ability to cancel sea invasion attacks, without zeroing out movement (restored to half of movement allowance instead), and without banking/incrementing sea capacity.
16. Retreating (RBC or RFC) entrained units now lose their entrained movement allowance.
17. "Donut of death" fixed. This happened when a unit had both short and long range aircraft. Attacking at the longer range got the short-range aircraft slaughtered. Now only aircraft that can reach the target hex will take losses.
18. Going directly from the editor to a PBEM game now prompts for a password.
19. The chance of engineering and rail repair are now modified by the fraction of movement left. This fixes the gamey trick of sub-dividing those units then attempting repair with two of the sub-units, then recombining and being able to use the unreduced combined capacity. Now, the loss of MPs by the first two attempts will render this trick useless. Note that this also adds an additional bit of realism to repairs.
20. Force Electronic Support Level now actually works in spotting units that have moved, HQs, Airplanes, etc. Also added helicopters to the easy to spot list. Note: This may unbalance some scenarios that have an ESL assigned. However, an ESL of the default (33) is treated as 0 so as to not imbalance existing scenarios.
21. Fixed an ACOW bug with the modifiers for entrenched terrain. They weren't generally being used outside of clear terrain.
22. Restored the "equipment.eqp" file to the graphics folder. This fixed the problem where switching from a scenario with a modified .eqp file to a scenario without one would cause the "wrong equipment file" message due to the previous scenario's modified .eqp file still being used. Note that this makes the equipment items show in English. Users of non-English languages may wish to delete/move this file.
23. Old ACOW bug that caused bogus attacker evaporations was found and fixed.
24. Airmobile/Airborne units can no longer overstack.
25. PO attacks weren't being canceled if the target defenders were RBC'd – causing PO friendly-fire.
26. Poor cooperation was actually benefiting combatants. No code error accounting for this was ever found, but the effect was simply overpowered by the factors described in Section IV, item 9.
27. Disbanding a unit now refreshes the screen.
28. Patrols in "New Turn Order Rules" occur after events and clearing of hex conversion costs from hexes converted in the previous turn. This restores patrols to ACOW methodology, where units must still pay conversion costs to enter hexes cleared by the current turn's patrols. "Old Turn Order Rules" retain the change made in 3.1.0.9 item 33. This treats patrols like they occurred in the previous turn.

XI.   ELMER (THE PO):

1. Elmer understands more of the strengths and odds including artillery.
2. Elmer now moves his artillery up first; this should help with RBCs and disengagement.
3. Elmer is able to do some limited island hopping. It uses a continentEmpty procedure to check for which island to hop to in order.
4. Elmer plays ships a lot faster.

5. Elmer handles aircraft better
6. Elmer does beach invasions better
7. Elmer handles Airmobile units better
8. Elmer works better when advancing slowly
9. Elmer uses attack helicopters like bombers
10. Elmer is less likely to move more than once.
11. Elmer is less likely to move away from an enemy unit if he's likely to suffer a disengagement penalty.
12. Elmer is less likely to move his entrained units adjacent to enemy units.
13. Elmer uses attack helicopter units more aggressively.
14. There is now an option in the Opart 3.ini for experimental AI. This affects how Elmer is influenced by his objectives.

XII.   NEW EDITOR SCALE FACTORS: (IN ADDITION TO ATTRITION DIVIDER AND MRPB):

1. **AAA Lethality Level.** Default is 100, which leaves the lethality as it is now. For example, a value of 50 would halve AAA lethality, while a value of 200 would double it. A value of 0 would eliminate all AAA lethality.
2. **Engineering Build Rates**. Default is 100, where 100 engineer squads have the engineering of 100 squads now. A value of 50 would mean that 100 engineer squads would have the engineering of 50 squads now, and a value of 200 would mean that 100 engineer squads would have the engineering of 200 squads now, etc. A value of 0 would eliminate engineering effects. Note that this also scales Rail Repair rates and Major/Minor Fording rates.
3. **Enemy-Hex Conversion-Costs.** Default is 100, where each enemy hex converted costs the moving friendly unit the original 10% of its movement allowance (reducible by high recon levels, though). A value of 50 would mean each hex costs 5% of the unit's movement allowance (same effect of recon as above), and a value of 200 would mean that each hex converted would cost 20% of the unit's movement allowance. A value of 0 would mean that there wouldn't be any cost of hex conversion, no matter what the unit's movement allowance or recon level was. Actual cost to the unit is still rounded down. And there is still a minimum cost of one, with the single exception for the setting of 0.
4. **Entrenchment Rates.** Default is 100, under which units dig in at the same rate as now. A value of 50 halves the rate, and a value of 200 doubles the rate, etc. A value of 0 prevents any digging in at all, and (under that special case) digging in attempts don't zero remaining MPs.
5. **Density** Combat **Penalty Rates.** (Density movement penalties due to traffic jams are not affected.). Default is 100, which leaves density penalties as they are now. A value of 50 would halve density penalties, a value of 200 would double them, and a value of 0 would eliminate them all together.
6. **Supply Costs of Movement Rate.** Default is 100, which works like now. A value of 50 would halve supply costs of movement (half a point for each MP expended, etc.). A value of 200 would double costs (2 points for each MP expended, etc.). A value of 0 would mean there was no cost for movement (like naval movement). Fractional values are effected via random functions.
7. **Readiness Costs of Movement Rate.** Default is 100, which works like now. A value of 50 would halve readiness costs of movement (half a point for each hex entered, etc.). A value of 200 would double costs (2 points for each hex entered, etc.). A value of 0 would mean there was no cost for movement (like naval movement). Fractional values are effected via random functions.

Ranges are 0-999 for all seven scale factors.

XIII.   NEW FORCE PARAMETER:

1. **Force ZOC Cost.** Default of 100 applies the normal 25% cost. A value of 50 halves the cost. A value of 200 doubles it, etc. There are also new Event Effects to allow designers to change these values for either side during the game. This does not affect chances of triggering disengagement attacks.

XIV.   INCREASED PARAMETER LIMITS:

1. **Attrition Divider.** Limit increased to a max of 999.
2. **Shock Side 1 or 2.** Limit increased to a max of 999.
3. **Air Shock Side 1 or 2.** Limit increased to a max of 999.
4. **Variable Value Trigger.** Limit increased to a max of 999.
5. **Objective Tracks.** There are now five tracks available.

XV.   NEW SCENARIOS   (DESIGNER):

1. Leipzig 1813   (Bob Cross)
2. XuZhou 1948   (Stone)
3. Anzio 1944   (Stefan Göhring)

4.	Directive 21 1941-1945	(Rick Kesler and Steve Sill)
5.	Autumn Fog 1944	(Steve Sill)
6.	Nghia Lo 1951	(Joao Lima)
7.	Kharkov 1943	(Joao Lima)
8.	Mobile Operations	(Yi Yue Zhou)
9.	Operation Varsity 1945	(Erik Nygaard)
10.	Tarawa 1943	(Erik Nygaard)
11.	Guerra no Pampas 2011	(Mauro Medina)
12.	Cyprus 1974 – Operation Attila	(Haris Riris)
13.	Aegean 2008	(Haris Riris)
14.	Greco–Turkish War 1922	(Haris Riris)

XVI.   NEW ACOW CONVERSIONS   (DESIGNER & CONVERTER)

1.	Gotterdammerung 1944-1945	(Thomas Kolley & Bill Wilson; update: Silvain Domen)
2.	Festung Kolberg 1945	(Barbaross; update: Silvain Domen)
3.	Danzig Corridor 1939	(Krzysztof Binkowski; update: Silvain Domen)

XVII.   UPDATED SCENARIOS   (DESIGNER):

1.	France 1944 D-Day	(Bob Cross)
2.	France 1944 Cobra	(Bob Cross)
3.	Okinawa 1945	(Bob Cross)
4.	Kaiserschlacht 1918	(Bob Cross)
5.	Germany 1945 (Last Stand)	(Bob Cross)
6.	Germany 1945 (Race To Berlin)	(Bob Cross)
7.	Soviet Union 1941	(Bob Cross)
8.	Killer Angels 1863	(Bob Cross)
9.	Killer Angels 1863 (Jackson Variant)	(Bob Cross)
10.	Waterloo 1815	(Bob Cross)
11.	Campaign for North Africa 40-43	(Bob Cross)
12.	Campaign for North Africa 40D-43	(Bob Cross)
13.	Campaign for North Africa 41-43	(Bob Cross)
14.	Campaign for North Africa 41N-43	(Bob Cross)
15.	Campaign for North Africa 42-43	(Bob Cross)
16.	Campaign for North Africa 42O-43	(Bob Cross)
17.	Campaign for South Vietnam 1965	(Curt Chambers)
18.	Blitzkrieg 1950	(Curt Chambers)
19.	Indochina 1951 - 1955	(Joao Lima)
20.	Europe Aflame 1939-1945	(Mark Stevens)
21.	Poland 1939	(Ben Turner)
22.	Ardennes 1944	(Rob Kunz)
23.	Road to Moscow I Crossing the Boarder	(Rob Kunz)
24.	Road to Moscow II Smolensk	(Rob Kunz)
25.	Road to Moscow III Guderian Moves South	(Rob Kunz)
26.	Road to Moscow IV Kiev	(Rob Kunz)
27.	Road to Moscow V Bryansk-Vyasma	(Rob Kunz)
28.	Road to Moscow VI At the Gates	(Rob Kunz)
29.	Road to Moscow VII Soviet Counteroffsve	(Rob Kunz)
30.	Road to Moscow VIII What If	(Rob Kunz)
31.	Holland – A Bridge Too Far 1944	(Erik Nygaard)
32.	Crete – Operation Merkur 1941	(Erik Nygaard)
33.	Double Eagle – Rising Sun 1904 - 1905	(Erik Nygaard)
34.	Operation Torch 1942	(Erik Nygaard)
35.	Race for Tunis 1942	(Erik Nygaard)
36.	Weserubung 1940	(Erik Nygaard)

v3.3.0.6 12/16/2007

This never-released version is included with the 3.4 release because it still works with Windows 98 and
we've had issues with Windows 98 in 3.4, and users of that platform can at least use the few enhancements
it contained, if they can't get the special Windows 98 version of 3.4 to work for them. Those are:

1. AAA lethality was scaled down by a factor of 0.4.

2. "Movies" option now defaults to saving only the micromap. There is an OPART.ini switch to restore the save of the full map, if desired.

3. Lag time in selection of units is fixed, except when crop circles are on.

4. Mouse Wheel no longer active when dialog boxes are open.

5. Next/Previous units no longer auto-center. They will only center if the unit is off the map.

6. Restored the ability to cancel sea invasion attacks, without zeroing out movement (restored to half of movement allowance instead), and without banking/incrementing sea capacity.

7. Playback issues and unknown parent errors were fixed by not allowing zooming in the playback dialog.

8. Next/Previous buttons in the editor now update the unit panel.

9. Scenario dump no longer erroneously shows P1/P2 equipment as the same (as it had been doing in some cases).

The 3.3.0.6 executable is in a zip file in the main folder. Just unzip it to that folder to use. (This will overwrite the 3.4 executable, though. So only do this if you are on a Win98 machine.

v3.2.29.26 August 29, 2007

1. Changed the Combat Planning Dialog. Artillery units that are within range, but are not in a mode where they will normally support the attack now show up with a red X across them. You can click the red X to make them join the battle in a direct bombardment role.

2. Added both Next and Previous buttons to the Combat Planning screen, which allow you to cycle through all planned combats.

3. On the Combat Planning and Combat Results screen, holding the space bar will make the dialog box disappear until released, while a brief press of the space bar will temporarily toggle off the dialog box, with it automatically reappearing in a few seconds. This is to allow you to better see the location of the action, or planned action.

4. Changed the combat report display to show the bottom line events (the important details) in silver.

5. <Shift><Ctrl>F4 will create an OOB dump, for the active side only. This may allow a functionality for creating derivative scenarios based on various points within a played game, AAR writing, unit sorting, etc. Be creative!

6. New Flanking Rules - If the defender has two non-adjacent hexes that he can't be attacked from (for example, one sea hex to the NW and one friendly unit to the NE), then attackers 120 degrees apart no longer cause a flanking attack. Against such a defender, it is only considered a flanking attack if the attacker has units that are 180 degrees apart. Previously, if you had a horizontal front on the map, it would have multiple flanks exposed because of the zigzag of the hexes on that axis. This change is intended to make sure that even though the line zigzags, it won't introduce cases where units are subject to flanking, when they probably shouldn't be. Possible consequences include making it easier to defend, and making map edges and impassable terrain features more important. This is an option available under the Advanced Game Options.

7. Guerrilla units should now be properly invisible if not moving and the hex is not 'seen'. Previously, they weren't unless they were the top unit.

8. Nuclear attacks now receive the flanking bonus, causing more collateral damage.

9. Headquarters and Artillery in Tactical Reserve will no longer advance into an adjacent combat during the non-active player's turn. They will still support eligible battles with ranged fire, but will not be pulled into adjacent battle hexes.

10. Helicopters and Equipment transported by helicopters now take less damage. You need an air superiority ratio (including local AA) of 4:1 to be safe. With lesser ratios, the casualties will mount quickly. Previous safe level was 10:1.

    Helicopters are treated differently from regular traffic. They are very durable, but prone to damage. Damaged helicopters, and equipment transported by them, will go into the replacement pool instead of being destroyed. Damage is based on Enemy versus Friendly Air Superiority, and has enemy AA added if AA spotted them. Friendly and Enemy AA units don't have a direct affect on casualties, only on whether damage occurs.

    Whether an attack occurs depends on whether the Enemy has noticed the hex, an electronic support check, how much Low AA Fire they might be subject to, and the unit density in the hex. This means that you should fly over jungles and wilderness, not the enemy concentrations!

11. The Anti-shipping flag and DPMX flags now work on ships. This should make missile ships effective on shipping

12. Weather patterns (cloud cover) should be more realistic.

13. Users with 1024x768 desktop resolutions can now see circle of stars on right side even when taskbar is visible.

14. Double-clicking a .PBL or .SAL file will launch TOAW III. Double-clicking on a .SCE file will launch the TOAW III Scenario Editor.

15. Scrolling using the keyboard now updates the bottom status line correctly.

16. VCR Replay now plays full screen.

17. If using a Mouse Wheel or 4-button mouse, there are now two additional zoom levels (Tiny and Ultra Tiny). This works for both the main program, as well as the editor.

18. Added the option to use new terrain files if they're installed. They are:

    tiles_damaged_railroad_damaged_bridge.BMP
    tiles_railroad_damaged_bridge.BMP
    tiles_road_damaged_bridge.BMP
    tiles_improvedroad_damaged_bridge.BMP
    s_tiles_damaged_railroad_damaged_bridge.BMP
    s_tiles_railroad_damaged_bridge.BMP
    s_tiles_road_damaged_bridge.BMP
    s_tiles_improvedroad_damaged_bridge.BMP

19. Added a zipped file to the AltGraphics folder that contains fixed versions for the following tile sets:

    s_Tiles_damaged_railroad.bmp
    s_tiles_l_cultivated.bmp
    s_Tiles_railroad.bmp
    s_Tiles_road.bmp

Tiles_road.bmp
Tiles_road_damaged_bridge.bmp

20. These new and corrected files can be extracted from the zipped folder and added to either or both of the Graphics and AltGraphics folders. The road, railroad, and cultivated files correct minor imperfections that have been in the tile sets since TOAW I. The damaged bridge set demonstrates the possibility of using one of the newly defined sets mentioned above. As always with Graphics modification, back up your existing files first, before overwriting so that if you wish to change back to a different set, you still have the files available.

21. Added optional files u_ and t_ (Tiny and Ultra Tiny) - These haven't been tested extensively, contact Ralph Trickey if you're interested in developing these.

22. What Would Elmer Do? This is displayed by using the following new Hotkeys:

    < / > What would Elmer do? This displays the objectives. The Red line is from the currently selected unit to the currently active objective, the Blue lines are the objectives for the current formation.

    < ? > What would Elmer do with everything? The Blue lines display the objectives for all formations.

    <space> Redraw screen, to get rid of the lines.

23. Armies that are scheduled to withdraw will now also appear on the selected reinforcements dialog.

24. VisibleAI - This is intended for troubleshooting the AI. If playing the AI against the AI, if you hold down on the CTRL key, you will see detailed information on the current state of the AI for the formation that just moved. To enable this feature, you will need to edit your Opart3.ini file, setting the visibleAI flag to Y.

25. MouseWheel/3/4button zoom in and out, (except on Win98).

26. Minimizing the window, <Shift> and <Caps Lock> will all speed up Elmer's moves.

27. Objective labels are now brass colored in the editor to make them easier to read.

28. Editor: Deployment – In addition to the numbered tracks, objective tracks can now be displayed graphically on the map panel. When the "Place Objective" button is active, use the "I" key to toggle between the various modes. In order, they are: objective path of currently selected formation, objective paths of all formations and DBR's of all units, no units or paths visible, all units visible but no paths displayed. Red arrowed lines indicate the currently selected unit's first objective, while blue arrowed lines show the path from lowest to highest numbered objectives for the formation. If you are using this feature in the editor, it will still be active in the game, if you do not first completely exit TOAW III and then restart it. See "What Would Elmer Do?" for more new features to assist in PO tweaking.

29. Right-clicking on the deployment selection on the right pane of the editor will now cycle through the selection backwards.

30. Foreground sound files can now be per scenario just like graphics files. In addition, you can (but don't have to) put a 1 or 2 in front for the player number. For example, 1advance.ogg and 2advance.ogg or just advance.ogg.

31. The upper limit to the Movement Bias range has been increased to 250. This may help some scenarios that simulate 1 km hexes, although extreme values will have strange results.

32. Withdraw and other events will now list the name of the unit if the unit was divided.

33. Fixed a problem with some scenarios (like Suez 73) created with early versions of the editor. Units would occasionally change formations when being divided.

34. Canceling an attack while at sea now zeros movement points. (This was the COW behavior.) The other behavior allowed for infinite sea transports by attacking and canceling an attack.

35. Debarking while at sea no longer frees up transport points.

36. Helicopters no longer embark onto trains.

37. Airmobile units will now bounce back instead of just hanging in the water/etc. if you click off them and they can't debark.

38. Minimize TOAW at end of PBEM turn cheat removed.

39. Spanish and German load dialogs have been fixed.

40. Selecting an invalid language DLL file no longer hangs TOAW.

41. Mouse button, map scrolling and micro map scrolling were changed in an attempt to fix the issue with WINE.

42. The Air AI now respects the same rules humans do for status changes.

43. Elmer can no longer take units out of Garrison mode.

44. Fixed the sound library so that we can turn on the Multi-CPU switch and later on use multiple CPU's.

45. Choice of Advanced/Simple game rules is now saved with the save game file. Previously, it could be set from the startup screen, wasn't saved with the save game file, and allowed a cheat to occur by changing to Simple Rules in the middle of a PBEM turn.

46. Windows fonts look better now. Added a black outline one pixel down and to the left.

47. Shifted DBR circles right 4 pixels to align them properly.

48. OOB XML Export has been improved. The Unit and Formation numbers are not relative to the side, they start with 1 for both sides. This may make understanding events a little harder until we add a side into the export. On the other hand, that makes easier to change if we want to expand the units/formations later.

49. OOB XML Import of objectives has been fixed.

50. Generally speeded up Elmer's movement.

51. Naval units will now concentrate more. It doesn't look as nice, but it works with the new AA rules better.

52. Fixed the problem where sea-borne units would sometimes loop back to their starting objective.

53. Elmer should not move his Artillery, HQs, and similar units into enemy territory. He should do a better job of keeping his Rear Echelon units in his rear.

54. Fixed a problem where Elmer would try to send units that couldn't fly to airports to fly.

55. Fixed several serious problems with Elmer not attacking properly.

56. Elmer now works better when unsupplied.

57. Added 33 new or newly revised scenarios. Several of them take advantage of specifically modified databases. By author and (sometimes abbreviated) titles, they are as follows:

    Bob Cross: Cambrai 1917, CFNA 40-43, CFNA 40D-43, CFNA 41-43, CFNA 41N-43, CFNA 42-43, CFNA 42O-43, Killer Angels 1863, The Next War 1979.
    Boonierat: Vietnam Combat Operations Volume 1, Vietnam Combat Operations Volume 2, Vietnam Combat Operations Volume 3.
    Silvain Domen: Trotsky's War 1939.
    Pelle Holmen: Nordic Light 1992.
    Rob Kunz: Road to Moscow Series (8 scenarios), Ardennes 1944.
    Sam Mudd: Sino Japanese War 1937-45, Papua New Guinea 1942, Guadalcanal 1942.
    Erik Nygaard: Crete Operation Merkur 1941, Double Eagle Rising Sun 1904-05, Holland A Bridge Too Far 1944, Malta Operazione C3 1942, Operation Torch 1942, Race for Tunis 1942, Weserubung 1940.

58. International Support - Added in better support for UTF-8 in XML. That means that the equipment.xml file, among other files, should be looked at again to make sure that the international characters work correctly. That means that some scenarios may be able to use Cyrillic for Russian units and place names, etc.

59. Windows Fonts – Added in support for Windows Fonts. The code still doesn't understand that Fonts can be of different heights, so the support is still limited. Since not everyone has the same fonts installed, scenario designers should strive to use common fonts that ship with Windows, fonts you have documented authority to use, or freeware fonts that are easily obtainable. If special fonts are used, then your documentation should include a web-link to allow users to download the font files. Matrix Games does not condone IP theft, so please make sure that any copyrighted fonts used are legally available, and distributable. We will be posting some tips and primers for the use of Windows fonts on the Matrix Games forums in the TOAW III section.

v3.1.0.9 February 27, 2007

Important Note: We fixed some important cheat possibilities. You can load any previous TOAW III version scenario, but any game saved with this version is NOT loadable by previous versions. Since games played or saved with this version will NOT be playable with any previous version to prevent cheating, it is important that all of your opponents upgrade to this latest version.

1. Editable equipment database files. These are standard Bio-Ed compatible files that have been renamed to have an .eqp file extension. They are handled the same as custom graphics and strings, and the same search algorithm is used. They are NOT saved with the scenario, but TOAW III does validate that you have the same files. If you wish to play against another player with an edited equipment database, then you'll both have to have identical equipment and graphics files installed. You will get a warning if you load a new or saved game file without the proper equipment file also being loaded. If it's a PBEM save game, you will not be able to continue, and

the program will exit. Two of the scenarios included with the 3.1.0.9 patch used edited databases. They are Poland 1939, by Ben Turner, and Waterloo 1815, by Bob Cross.

2. See the Bio-Ed "How to" document, by Bob Cross, for information on obtaining the Bio-Ed program and on its use. This patch will create a Windows Start Menu item, under The Operational Art of War III >>> Documentation, for this tutorial.

3. A bug left over from earlier versions of TOAW where saving the game, exiting and resuming, would cause the attack timer to be set one tactical round earlier was squashed. This could conceivably allow attacks to be made without incrementing the number of tactical rounds used. Now, all series of attacks will take at least one tactical round to resolve.

4. Eliminated a critical bug left over from earlier versions of TOAW, where moving airmobile forces onto enemy stacks allowed a possibility of the owning player cheating by giving him full control of all enemy units on the board. This cheat allowed the moving player to change deployment states, loss tolerances, breakdown, and disband his opponent's units at will.

5. Instituted a new serial number check by Matrix Games. Only valid serial numbers will be able to be patched. Known pirated copies are blacklisted. If you are using a pirated copy, get a life, some morals, and buy your own, legal copy.

6. Elmer's warnings about fixing events, is itself now fixed. He shouldn't be screwing up any events any more. The warnings now only appear when loading Opart100 scenarios. If you have a game in progress that has had a problem with improper Withdraw Army events, keep your saved games, then please post a detailed request thread in the Matrix Games TOAW III Support forum, at http://www.matrixgames.com/forums/tt.asp?forumid=290 and we should be able to individually correct the problem from one of your previous save files.

7. F4/F5 will now export/import the entire armies, along with formation, units, and objectives. The format is now in XML. This means that an XML editor is now necessary to edit the exported files. Designers can obtain XMLPad Pro (it's totally free) at the following site: http://www.freewarefiles.com/program_4_50_11470.html

8. Displayed Bombardment Range (DBR): This new feature will allow the "I" key, or Unit Visibility button in the Control Panel, to display the bombardment ranges of your support units. This command now toggles between showing no units, units but no DBR, the current unit's DBR, and all units DBR's. Only the DBR's for friendly units will be shown. On the main map, all non-air, ranged units should display the radius of their maximum range in one of three colors. In order of visibility, they are:

> White = Unit currently selected.
>
> Black = A unit that is set to attack/bombard, or is in any support deployment mode (D, E, F, L, or T), or has no remaining Movement Points (MP's).
> Red = A unit that has MP's remaining, is not set to attack, and is not in any support deployment mode.

The DBR of air units is shown on the micro map, along with the effective radii of AA units. These are both displayed in blue.

9. When doing a VCR playback, right clicking on the single step button instead does a backspace. Because this has to do a rewind first, there may be some flashing. This will be improved in later releases.

10. You can now display documents from the Scenario Briefing screen. This allows players to easily bring up the associated documents after they've already started the scenario. Displayed documents now include PowerPoint (PPT) files.

11. ExperimentalAIP1 and ExperimentalAIP2 flags have been added. We recommend playing with these both set to Y in Opart 3.ini. If you have any problems with the scenario play, then set them to 'N'. Preliminary tests showed that setting this flag increases the strength of 'Elmer's' play, but we haven't had time to rigorously test them. Your feedback is welcome.

12. Better path finding. The game should now do a better job of getting from point A to point B. This also makes scenarios like Attu play better against the PO.

13. The ScenarioPic-template.psd file described in the Scenario BMP Editor Manual, and missing from the initial release has been included and is installed into the Graphics folder.

14. Automatic Bookkeeping Phase speeded up.

15. Re-organized the map-editing menu to move the fill to border option away from the section it was in.

16. The spare equipment slots now are available in the editor.

17. Simple Map Import/Export (partial maps). You can edit the file to change the "Offset", being defined as the offset from min of the starting position of the map that's being imported. It's recommended to use even steps (2,4,6,8) for the X and Y axes to avoid artifacts. Min and max define the map size of the area to import.

18. The Air Staff assistant has been improved, it also now sets up before the round so you can adjust the setup after.

19. F9 now saves a file called "auto.sav" in the Saves directory.

20. PO enhancement: Independent orders should now work better. They have the effect of splitting the work of the support unit between up to three closest tracks depending on how much they've advanced on them. This should have the effect that in the early rounds, they will be spread out, but will eventually fasten on one or two tracks.
Independent orders also tell Naval units to follow the Naval Objective tracks.
Independent orders also tell AA on airfields to stand fast, though it will abandon this order if threatened.

21. Elmer should do a better job of not needlessly shifting forces about.

22. Elmer should do a slightly better job of planning assaults.

23. Elmer should now surround individual units more often.

24. Elmer should use the enhanced Air Staff.

25. Elmer should now try to form fleets with the Navy, and do a better job of staying offshore when bombarding.

26. Elmer will now put bridging engineers adjacent to enemy units to allow them to assault.

27. Elmer should now land at non-port hexes if an objective is adjacent to a shoreline, along with other minor improvements for amphibious operations.

28. Rail transported units should stop at the closest secure objective, and not run right up to the front lines. This is defined as the one that doesn't have any enemy units behind it. This will sometimes put them adjacent, but usually works.

29. Fixed crash bug from too many characters displayed in the microview.

30. Fixed bug where destroyed units weren't withdrawn from Withdraw Unit/Army events, and would later reconstitute.

31. Fixed bug where too many characters in a string for the hex description would cause the game to crash.

32. Fixed bug where if you managed to get too many units in a hex, it would cause the program to crash when doing group operations. We're not sure how that happened, but it now only allows you to select the first 9 units in a hex with group operations.

33. Fixed bug where changing ownership by local patrols (hex conversion during the ABP) would cause an event supposed to be triggered by ownership change to not fire.

34. Fixed a bug where you would lose the custom graphics from the display in the editor when editing a scenario.

35. Fixed a bug where the PO Player 2 Activate event was not firing reliably.

36. Fixed a bug where automatic entrenchment was not working in PBEM games.

37. Internal enhancement: Version number of EXE separate from string version.

38. Added seventeen new or newly revised scenarios by the following designers:

BoonieRat – Vietnam Combat Operations, volumes 1 & 2.

Curt Chambers – Blitzkrieg 1950.

Bob Cross – Waterloo 1815, Kaiserschlacht 1918.

Jarek Flis – Forgotten Battles: Lodz 1914, Komarow 1914, Cracow 1914. Frozen Steppes 1942-1943.
Pelle Holmén – Nordic Light 1992, Wintergewitter 1942.

Chuck Kotraba – Deep Battle 1930.
Erik Nygaard – Race for Tunis 1942.

Mark Stevens – Europe Aflame 1939-1945.

S. Stevens – Sinai 1967.
Ben Turner – Rhodes 1943, Poland 1939.

v3.0.0.17 July 11, 2006

1. All scenarios, except those in the "Classic TOAW" folder, have had their briefings edited to designate which sides, if any, are playable by the PO. A brief caveat is in order here. The determination of whether a scenario is "playable" by the PO is based on two primary considerations. First, is whether or not the scenario designer has stated that one, both, or neither side, have been programmed to be played by the computer. The second, is that lacking a scenario designer's stated confirmation, there was a cursory evaluation by the TOAD QA Team, as to whether there appeared to be any set objective paths, strategic bias settings, orders and emphases given to the various formations of one or both sides in a scenario. In depth testing of ANY scenario, as to its particular suitability for PO play is beyond the scope of the QA Team's mission, and as it is highly dependent upon the skill level of the player, best left to them to determine whether or not the designer has done an "adequate" job of programming Elmer.

2. The assumption here, is that all scenarios in the "Classic TOAW" folder have been programmed for PO play, on both sides, with the exception of Balkans 12, which does not have the Turkish side programmed for PO play. Thus, none of those briefings were edited and they are in their original state, as released in the Talonsoft versions of the TOAW: Century of Warfare - the only conversion, being that necessary to play on the Opart 300 based executable of TOAW III.

3. A new scenario, specifically designed for TOAW III, Gothic Line 1944, by Chuck Kotraba, is included. It, its BMP file, and associated document, are found in the "WW II – Mediterranean" folder.

4. A new graphic choice is offered to users, for customizing their graphics. This is at the level of scenario folder. Thus, a user may insert graphics into their scenario folder, and all scenarios within that folder will use the modified graphics. The priority that TOAW III uses in determining what graphics will be used for a scenario is in the following order, from highest priority, to lowest:

> AltGraphics\Scenario Name
>
> Graphics\Scenario Name
>
> AltGraphics\Year the scenario occurs (actually, it looks backwards for the first one with that year, just like sounds)
>
> Graphics\Year the scenario occurs
>
> AltGraphics
>
> Graphics

Thus, Graphics is overridden by AltGraphics, which is overridden by Graphics\Year, and so on, back up the list.

5. New algorithms are used to speed up the supply determination and reconstitution points of units during the Automatic Bookkeeping Phase. A marked improvement should be seen in the amount of time it takes to process this phase, especially on the monster scenarios.

6. Elmer will now repair bridges. Previously, he didn't want to repair them.

7. Elmer should not be as likely to attack when given a defend order.

8. Units will be routed or forced into reorganization less frequently.

9. The sound system on some systems had a stability issue. This has been addressed.

10. Changing the .exe name should not generate a version mismatch error.

11. Low Aircraft subject to Low AA fire are divided by 3.

12. High Aircraft subject to Low AA fire are divided by 3. (no change from the current situation.)

13. Added T-64A in new equipment. This will cause a version error message if playing against people who have not updated their program to this patch, and is intentional. You should ensure that your opponent is playing with the same patch as you are!

14. Examines and possibly fixes the following event types. They may have had errors introduced by TOAW: Century of Warfare while converting from Opart 100 to Opart 300.

> WITHDRAW_UNIT_EFFECT
>
> DISBAND_UNIT_EFFECT

WITHDRAW_ARMY_EFFECT

SET_FORMATION_ORDERS_EFFECT

UNIT_DESTROYED_TRIGGER

SET_OBJECTIVE_1_TRACK

If the scenario is changed, a test file is written out to the scenario directory. The scenario must be saved in order to save the changes.

v3.0.0.14 June 7, 2006

1. Addresses an issue where air-transported units embarking near the map edge, would not properly move to their destination hex.

2. Fixes an issue where units were unable to reconstitute.

3. Fixes an issue where English was displayed for the equipment names instead of the language picked.

v3.0.0.12 – June 1, 2006 (Initial Release of TOAW III)

1. TOAW veterans, as well as beginners, should read the TOAW III manual carefully before playing. Many changes exist from *The Operational Art of War: Century of Warfare, version 1.04.* What follows below, is a partial list:

2. Revised the manual and help file, to get rid of incorrect data and references going all the way back to TOAW I. The manual is now on .pdf and is searchable. Also, the manual is more up to date than the Help file at this time.

3. You now put the scenario bitmap (BMP) in the same directory as the scenario instead of in the graphics directory.

4. New method of creating BMP files for scenario briefing illustrations, which is described in depth.

5. Scenario related documents should be put in the same directory as their scenario. A button on the 'Start A New Game' screen will indicate whether a scenario has an associated document. Clicking on this button will load the appropriate reader for the document.

6. Scenario specific graphics and sound are enabled.

7. A full description scenario list is included as a start menu item, along with a how-to on creating scenario briefing BMP files, the equipment database, and the manual.

8. New terrain and GUI graphics incorporated. Classic TOAW terrain graphics are included and can be easily swapped.

9. Expanded the sound library.

10. Number of available events allowed doubled to 999.

11. Number of supply points that may be placed in the scenario editor was raised to 99.

12. Supply calculation algorithm enhanced to reduce time spent during the Automatic Bookkeeping Phase.

13. Memory management issues with previous versions of TOAW under Windows XP have been solved. This now allows scenario dumping in the editor that caused previous versions to crash when running Windows XP.

14. Resource leaks in previous versions of TOAW found and plugged. You can easily more run multiple copies of the program, and editor, without crashing.

15. French and German are now supported.

16. There are 3 dlls, English, French and German. If one of these is renamed to 'language.dll' then it will be used for the strings, etc. while playing. You can also rename the DLL to 'Arracourt 44.dll' (for instance) and place it in a sub-folder called Arracourt 44 within the Graphics directory, and it will override the strings in the normal program.

17. PO logic substantially improved, especially for a PO attacker. PO uses its artillery more effectively. It will seek to both split units, and recombine them, as a situation warrants.

18. Max Rounds Per Combat feature implemented as a scenario design option, which can dramatically reduce the turn burn from earlier versions of TOAW.

19. Incorporates an updated anti-armor combat model, Norm Koger's farewell gift to the TOAW engine, which allows for hits to be made against weaker side armor.

20. Major ferry capacity is no longer required for land units entering an anchorage hex on Major River, or Suez Canal hexes.

21. Other movement costs have changed slightly, and are noted in the manual.

22. High Altitude bombers are now subjected to anti-aircraft fire. Equipment which fires at Low Altitude only, also lends a small proportion of its strength to High Altitude fire. AA fire is made "at range" as well, subject to communications checks. You will not see the numbers in the database changed, but all AA attrition rates were increased in the code.

23. Ships strengths are no longer considered in the unit strength scaling.

24. Turn used and planned attacks indicators show in the "bolted" display panel and the information panel.

25. Selected unit supply, proficiency and readiness stats now share the display in the turn info panel.

26. Numerous additional hotkey commands. See manual for details.

27. Nuclear release event can now be set from 0-99.

28. Nuclear effects are properly scaled per hex size.

29. Replay issues on maps with x>255, y>255 hexes resolved.

30. PBEM cheating addressed, with warnings to affected players. PBEM loading and saving options changed. No longer able to load in-process PBEM games into the scenario editor.

31. High supply, No borders, Movies, and SitRep Log options are now available in the Advanced Game Options pane. See manual for details.

32. Naval units now only reconstitute in deep water hexes.

33. Low MP unit combat is improved. Zero MP units may now fire without using the entire turn.

34. You may set Windows file associations for .SAL, .PBL, and .SCE so that TOAW III will automatically start, when these file types are selected to open from any directory. Note, this loads .SCE files into the regular game for playing, and not into the editor for editing.

35. Adding, or deleting units in the force editor will no longer mess up the events for following units.

36. Sea-borne units should now work better in going around corners. In CoW, the Attu scenario was broken because the pathfinder couldn't find a path to the final destination.

37. Database change: F 22 Lightning is now F-22 Raptor

38. Display problems in CoW for the last lines of OOB's in formation reports, and equipment in the unit report were fixed.

39. Inoperative Theater Option scroll bar removed. Limit of available TO's is 16. This was true before, but the bar confused everyone.

40. Inserting an event, should no longer screw up those in the list below it.

41. Events that activate themselves no longer cause the program to crash.

42. Entrained, embarked and retreated artillery no longer provides support.

43. Menus no longer take up 100% CPU cycles.

44. If you put graphics files into the AltGraphics directory, TOAW III will read from this folder first.

45. Dropped the Targa format (TGA) for maps, and now using bitmaps (BMP).

46. Clicking on HQ button toggles between HQ units and artillery units.

47. You can't use your opponent's fording ability while attacking any more.

48. Enemy traffic jams no longer impact your ability to attack any more.

49. Event trigger for starting between turns X and Y was NOT working linearly. There should now be an equal chance for each year.

50. When splitting or recombining, replacement priority was not held over. It now is.

51. Fixed a bug allowing mountaineers to cross a Major Escarpment at no additional cost.

52. Fixed a bug where retreats of an HQ unit did not retreat towards the nearest HQ unit.

53. Fixed a bug where you got a supply boost by being adjacent to ENEMY HQ units.

54. Fixed an obscure bug where player 2 got the benefit of player 1's ESS checks.

55. Hotseat no longer affected by variable initiative, and follows the same order as PBEM.

56. Several other obscure bugs squashed.

Known Issues

Though you can run multiple instances of TOAW III, both in-game, and in-editor, you may find that during extended load and reload sessions, some resources may not be properly released. Saving your work, completely exiting the program(s), and restarting occasionally, is recommended in these cases.

Some terrain feature combinations do not properly stack, with regard to movement costs. Inconsistencies will be addressed in following patches.

If your system is set to have a media player, other than Windows Media Player, as the default player for playing .WMV files, then you may not see all of the introduction movies. Specifically, an issue was noted with WinAmp not playing all of the movies at the start of the program. You can solve this problem by setting the file associations for AVI and WMV file types first to Windows Media Player, running the program opening sequences, and then resetting them back to WinAmp.

We removed the indexed help file that TOAW III is looking for when you hit the Help hot key, F1. We didn't rename the target file though, and so it will still look for the old Century of Warfare indexed help file. If you have CoW installed, allow Windows to search for it, to clear the error message. You can still access the proper help file through the menu item "Help\Help Topics" and in the first patch, both methods will point to this single retained TOAW III help file.

Manual Errata (As of June 1, 2006)

6.1.12 - Replace the last sentence with: If the mouse cursor is over a friendly unit, it shows the proficiency, readiness, and supply of that unit. If it is over any blank space in the map panel, it shows the proficiency, readiness, and supply of the currently selected unit

10.4.3 - It should be explicitly noted that distance hexes have no effect on the movement costs of any unit. They only affect attack ranges.

13.9.7 - The artillery bonus for firing down from escarpment hexes is only gained when firing down from Major Escarpments.

17.2.2 - In the "Distance" bullet, remove sentence starting "All movement across a hexside…". Also, the Draw Border button is separated from its text by a page break, and is found at the bottom of page 50.

17.8.4 - Theater reconnaissance event is wrongly described. It should read " - Force 1 or 2 Theater Reconnaissance Capability is increased by a positive value, or decreased by a negative value. Minimum, and initial value is 0.

17.9.5 Reconstitution Eligibility - Add new section containing the following paragraph: Under the "Reconstitute?" Column, "Yes" means that the unit will reconstitute as per section 9.1.8, or at the force reconstitution point if one is defined. "Fixed X,Y" means that the unit reconstitutes at the X,Y location of the unit's formation's track 1 objective 1).

18.11.5 - Add sentence: "The BMP files for Scenario Briefing Illustrations should occupy the same directory as the scenario and any associated documents."