

v3.20beta - date - 09/20/14

All of these changes are from v3.10 final

Categories -

Unit Movement and combat ranges for Air and Naval Units

Altered Tech levels for Air and Naval units

Russian Guards,

Para Units

Convoy sizes

Weather changes

Transport Loops

Specifics-

1) increased ranges (movement, combat and spotting) for air units to better represent air

craft performance in ww2. see chart attached - file affected Unit.txt

FTR - Mv +6 to 20, AR +3 to 9, LS -N/C, SS - N/C,

TAC - Mv +8 to 26, AR +4 to 12, LS +2 to 7, SS +2 to 8

SAC - Mv +12 to 24, AR +8 to 20, LS +2 to 7, SS +2 to 8

DD - Mv -2 to 20, AR - N/C, LS - N/C , SS - N/C

BB - Mv -1 to 17,

CV - Mv - N/C, AR +6 to 9, LS +1 to 4, SS +1 to 8

Convoy Mv +4 to 16,

Transport Mv +1 to 18

2) Altered Tech starting attributes and upgrades to Air and Naval units spread among levels.

Changes made to general.txt

3) Para upgrade supply level reduced to supply level 4.

4) Russian Guards allowed to form outside Russia

5) Russian Guards promotion XP Needed lowered to 28.

6) Guards supply level needed lowered to supply level 3

7) North Atlantic convoy size increased to 150 from 100.

8) Mid\_Atlantic convoy size increased to 150 from 100

9) South Atlantic convoy size increased to 140 from 90

10) North MUD chance increased to 10 from 0

- 11) Central Winter chance MARCH increased to 10 from 0
- 12) Central Mud chance APRIL increased to 10 from 0
- 13) Central Mud chance May increased to 5 from 0
- 14) Severe Winter Chance October increased to 5 from 0
- 15) Game now keeps track of Elite units while they are in Transport

Loops.

This closes a loophole of allowing a player create more Elite units above the Max.

Elite units are classified as SS, Guards, and Para units.

If you want you can list the changes from the charts for specific units.

v3.20charlie- date 11/22/14

Categories -

Convoy sizes

Air and Naval Movement, attack and spotting ranges

XP changes

Air Naval changes

FTR - Mv +0 to 20, AR -1 to 8

TAC - Mv N/C, AR - N/C, LS -2 to 5, SS -2 to 6

SAC - Mv N/C, AR - NC, LS -2 to 5, SS - 2 to 6

DD - Mv -1 to 19

BB - N/C

CV - Mv -1 to 16, AR -1 to 8

Convoy Mv -2 to 14

Transport - N/C

Note spotting was reduced because of upgrades with tech increases.

1) North Atlantic convoy size lower to 140 from 150

2) Mid Atlantic conoy size lowered to 125 from 150

3) FIGHTER\_VS\_AIR\_DEFENSE\_XP increased to 5 from 4 Added new categories for

Air Units XP gain.

(4 through 18)

FIGHTER_VS_GARRISON_ATTACK_XP	1
TAC_BOMBER_VS_GARRISON_ATTACK_XP	1
STRAT_BOMBER_VS_GARRISON_ATTACK_XP	1
FIGHTER_VS_PARTISAN_ATTACK_XP	1
TAC_BOMBER_VS_PARTISAN_ATTACK_XP	1
STRAT_BOMBER_VS_PARTISAN_ATTACK_XP	1
FIGHTER_VS_ELITE_ATTACK_XP	2
TAC_BOMBER_VS_ELITE_ATTACK_XP	4
STRAT_BOMBER_VS_ELITE_ATTACK_XP	3
FIGHTER_VS_CORPS_ATTACK_XP	2
TAC_BOMBER_VS_CORPS_ATTACK_XP	3
STRAT_BOMBER_VS_CORPS_ATTACK_XP	2
FIGHTER_VS_MECH_ATTACK_XP	2
TAC_BOMBER_VS_MECH_ATTACK_XP	3
STRAT_BOMBER_VS_MECH_ATTACK_XP	2
FIGHTER_VS_ARMOR_ATTACK_XP	2
TAC_BOMBER_VS_ARMOR_ATTACK_XP	4
STRAT_BOMBER_VS_ARMOR_ATTACK_XP	3

Reduced these categories by 1 -

(19 & 20)

FIGHTER_VS_RESOURCE_ATTACK_XP	1
TAC_BOMBER_VS_RESOURCE_ATTACK_XP	1

Added these new categories for Garrisons

(21 & 22)

FIGHTER_VS_RESOURCE_ATTACK_XP	1
TAC_BOMBER_VS_RESOURCE_ATTACK_XP	1

V3.20 delta date 01/06/15

Categories -

Russian Guards

Convoy system updated

UK Home Guard units

Weather changes

Air and Naval unit ranges formalized

Leaders

- 1) Russian Guards changed back to only forming in Russian Territory
  - 2) Guards Promotion raised +2 to 30 (from 28)
  - 3) Russian Guards Supply level needed increased to level 4
  - 4) New convoy system to determine convoy size in later years of the war
- base numbers

returned to v3.10 values

(5 through 24)

ALLIED\_TURNS\_BETWEEN\_CONVOYS 4 /\*allied turns between each  
convoy\*/

/\* Max production worth of the 3 different convoys. Max value is  
modified by the averaged

war effort of UK and USA \*/

NORTH\_ATLANTIC\_CONVOY\_SIZE 100 /\* Convoys go to USSR after  
USSR joins the Allies. Before they go to UK \*/

MID\_ATLANTIC\_CONVOY\_SIZE 100 /\* Convoys go always to UK  
\*/

SOUTH\_ATLANTIC\_CONVOY\_SIZE 90 /\* Convoys go to USA after  
USA joins the Allies. Before they go to UK \*/

NORTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1939 0 /\* Mod to max convoy  
size for year \*/

NORTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1940 0 /\* Mod to max convoy  
size for year \*/

NORTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1941 5 /\* Mod to max convoy  
size for year \*/

NORTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1942 10 /\* Mod to max convoy  
size for year \*/

NORTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1943 15 /\* Mod to max convoy  
size for year \*/

NORTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1944 25 /\* Mod to max convoy  
size for year \*/

NORTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1945 35 /\* Mod to max convoy  
size for year \*/

MID\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1939 0 /\* Mod to max convoy  
size for year \*/

MID\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1940 0 /\* Mod to max convoy  
size for year \*/

MID\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1941 5 /\* Mod to max convoy  
size for year \*/

MID\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1942 10 /\* Mod to max convoy  
size for year \*/

MID\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1943 15 /\* Mod to max convoy size for year \*/

MID\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1944 25 /\* Mod to max convoy size for year \*/

MID\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1945 35 /\* Mod to max convoy size for year \*/

SOUTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1939 0 /\* Mod to max convoy size for year \*/

SOUTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1940 0 /\* Mod to max convoy size for year \*/

SOUTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1941 5 /\* Mod to max convoy size for year \*/

SOUTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1942 10 /\* Mod to max convoy size for year \*/

SOUTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1943 15 /\* Mod to max convoy size for year \*/

SOUTH\_ATLANTIC\_CONVOY\_SIZE\_MOD\_1944 25 /\* Mod to max convoy size for year \*/

25) UK Home guard units now count land and air units toward morale loss trigger

26) NORTH\_MUD\_CHANCE\_NOVEMBER increased by 5 to 45

27) NORTH\_MUD\_CHANCE\_MAY reduced by 5 to 5

28) CENTRAL\_MUD\_CHANCE\_OCTOBER reduced by 5 to 20

29) CENTRAL\_WINTER\_CHANCE\_OCTOBER increased by 5 to 5

30) CENTRAL\_MUD\_CHANCE\_MARCH reduced by 5 to 20

31) CENTRAL\_WINTER\_CHANCE\_MARCH reduced by 5 to 5

32) CENTRAL\_MUD\_CHANCE\_APRIL reduced by 5 to 5

33) CENTRAL\_MUD\_CHANCE\_MAY reduced to 0

34) SEVERE\_WINTER\_CHANCE\_NOVEMBER increased to 20

Air and naval unit ranges formalized

FTR - N/C

TAC Mv -2 to 24, AR -2 to 10, LS N/C, SS N/C

SAC Mv -2 to 34, AR -4 to 16, LS N/C, SS N/C

DD Mv +1 to 20

BB - N/C

CV Mv +2 to 18, AR N/C, LS -1 to 3, SS -1 to 7

35) Bug fix for Transportation loop which allows units in the loop to not

be counted towards builds. (i.e. paratroops)

36) Leaders costs has new formula

/\* Formula: Cost = (commander quality - RR) \* CQ + ground attack \* GA +  
ground defense \* GD \*/

COMMANDER\_RANGE\_REDUCTION 2 /\* rr in formula. 0..2 \*/  
COMMANDER\_QUALITY\_COST 10 /\* cq in formula. Cost per leader  
quality value \*/  
COMMANDER\_GROUND\_ATTACK\_COST 10 /\* ga in formula. Cost per  
bonus ground attack  
points \*/  
COMMANDER\_GROUND\_DEFENSE\_COST 5 /\* gd in formula. Cost per  
bonus ground defense  
points \*/  
COMMANDER\_MINIMUM\_COST 5 /\* Minimum cost of commander  
regardless of formula  
result \*/

Costs reduced 10 to 15 PP's minimum cost for leaders are 5 PP's.

v3.20 echo date 04/06/15

Weather changes  
SUB rules

1) AXIS\_WINTER\_SUFFER 40 /\* Severe winter penalty in 1939. Max  
efficiency will this

value lower \*/ the previous value (35) was increased by 5 to 40

2) MAX\_WINTER\_SUFFER 30 /\* Max possible efficiency loss from severe  
winter \*/

The previous value (25) was increased by 5 to 30

3) SUB\_EVADE\_CHANCE\_INCREASE\_SUB 6 /\* Increased percent  
chance per Submarine

tech level \*/ the previous value (8) was lowered by 2 to 6

4) SUB\_EVADE\_CHANCE\_REDUCTION\_RADAR 6 /\* Reduced percent  
chance per Radar

tech level \*/ the previous value (5) was increased by 1 to 6.

5) Added new condition - NAVAL\_CONVOY\_ESCORT\_XP 1 this allows

escorts of convoys to  
gain XP escorting.

6) SUB\_VS\_CONVOY\_ATTACK\_XP 2 the previous value (3) was  
reduced by 1 to 2.

v3.20 foxtrot date 05/07/15

## Categories

XP update

Espionage for Tech added

1) SUB\_VS\_CONVOY\_ATTACK\_XP 3 the previous value (2) was  
increased by 1 to 3

2) XP\_MODIFIER\_PER\_XP\_LEVEL\_DIFF 1 /\* Bonus or penalty to XP  
awarded per combat  
per tech level difference between attacker and defender. \*/ added  
new XP category.

(3 through 7)

/\* Bonus research if one or more tech levels behind most advanced  
country \*/

/\* ----- \*/

BONUS\_RESEARCH\_PER\_LEVEL 4 /\* Percent bonus per turn per tech  
level behind most

advanced. 0 = no bonus \*/

REDUCED\_MODIFIER\_NO\_LABS 2 /\* Bonus divided by this value if no  
labs in tech.

99 = no bonus \*/

REDUCED\_MODIFIER\_NOT\_AT\_WAR 2 /\* Bonus divided by this value if  
country not at

war. 99 = no bonus \*/

BONUS\_FRACTIONS\_ROUNDED\_UP 1 /\* 1 = fractions rounded up. 0 =  
fractions rounded

down \*/

NEUTRAL\_TECHS\_COUNT 0 /\* 0 = neutral power techs don't count  
finding max tech.

1 = neutral techs count \*/

ORGANIZATION\_RESEARCH\_BONUS    0 /\* 0 = Organization doesn't get  
bonus research

advance. 1 = Organization gets bonus \*/

INDUSTRY\_RESEARCH\_BONUS    0 /\* 0 = Industry doesn't get bonus  
research advance. 1 =            Industry gets bonus \*/

v3.20 gulf    date 08/19/15

#### Categories

Resource graphics updates

Large counter graphics

Map changes

CV unit changes

- 1) graphics that display Resources was changed to a new cleaner look.
- 2) Large counters were changed to go with the new resources graphics.
- 3) Tobruk was moved 3 hexes to the East to better represent the  
position historically.
- 4) CV Attack range reduced to one hex while in port.

V3.20 gulf    date 08/19/15

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v3.20 hotel    date 09/13/15



## Category

### Air unit changes

- 1) Reduced intercept range in half for FTR's.

```
/* Fighter and CV unit interception range */
/* ----- */
FIGHTER_INTERCEPTION_RANGE_DIV    2 /* 1 = Fighter unit interception
range divided by
    this number. 1 = intercepts at full range */
CV_INTERCEPTION_RANGE_DIV    3 /* 1 = CV unit interception range
divided by this
    number. 1 = intercepts at full range */
CV_INTERCEPTION_CAPABLE    1 /* 1 = CV units can intercept. 0 =
no interception
    possible */
```

- 2) Removed 1 SURV and 1 Movement Navy - Surface Ships Level 2 (affects CV unit)
- 3) Removed CV unit from AIR - Dog Fight Level 2
- 4) Removed 1 SURV from AIR - Strategic Operations Level 2

v3.20 india date 11/13/15

## Categories

### Menu changes

#### Bug

- 1) made changes so that Espionage, FTR intercept range can be selectable when starting a new game.
- 2) text files became corrupted altering the values concerning rail depots.

v3.20 juliet date 01/06/15

## Categories

Weather  
Research  
Units  
Map Changes  
Scenarios

## WEATHER-

Chances were altered to these values for NORTH / EAST regions of map.

- 1) Weather changes now set to:
- 2) October: Mud 50, Fair 40, Winter 10
- 3) November: Mud 50, Winter 50
- 4) April: Mud 75, Winter 25
- 5) May: Fair 100
- 6) CENTRAL\_MUD\_CHANCE\_APRIL reduced by 5 to 0

Axis winter set back to GSv3.10 (25). GSv3.20 was increased to 30 for  
play  
testing.

Severe winter length changed to 4 or 5 turns 50% chance for each.

## RESEARCH-

Starting research for 1939 scenario was altered to these starting  
values-

Germany:

Artillery 0/20 instead of 0/00  
Armor 0/10 instead of 0/00  
Dog fight 0/40 instead of 0/00.  
Submarine 0/25 instead of 0/00  
Industry 1/40 instead of 1/00

Italy:

Antitank guns 0/40 instead of 0/00  
Surface ships 0/50 instead of 0/00  
Submarines 0/25 instead of 0/00.  
Industry 0/20 instead of 0/00.

Organization 0/20 instead of 0/00

UK:

Fixed defenses 0/20 instead of 0/00  
Antitank weapons 0/10 instead of 0/00  
Dogfight 0/30 instead of 0/00  
Surface ships 1/20 instead of 1/00  
ASW 0/25 instead of 0/00  
Industry 0/25 instead of 0/00

France:

Fixed defenses 0/25 instead of 0/00  
Antitank weapons 0/25 instead of 0/00  
Dogfight 0/20 instead of 0/00  
Surface ships 0/80 instead of 0/00  
Industry 0/25 instead of 0/00

USA:

Artillery 0/20 instead of 0/00  
Fixed defenses 0/90 instead of 1/00  
Antitank weapons 0/90 instead of 1/00  
Blitzkrieg 0/10 instead of 0/00  
Armor 0/10 instead of 0/00  
Tank destroyer 0/80 instead of 1/00  
Dogfight 1/25 instead of 1/00  
Tactical air support 1/70 instead of 2/00  
Submarines 1/75 instead of 2/00

USSR:

Artillery 0/80 instead of 1/00  
Fixed defenses 0/80 instead of 1/00  
Blitzkrieg 0/20 instead of 0/00  
Tank destroyer 0/80 instead of 1/00  
Dogfight 0/10 instead of 0/00  
Tactical air support 0/75 instead of 1/00  
Surface ships 0/30 instead of 0/00  
Submarines 0/20 instead of 0/00

Modified Attribute gains for certain units.

Removed AT bonus for Close Support Tech level 1

## UNITS-

Added displaying XP value in Unit Panel

Added starting XP in 1939 scenario to Active Major Powers. XP is determined randomly and added randomly to units. Countries affected are Germany, United Kingdom, France.

Modified display of Unit Strength to BOLD at zoom level 2 when using Large counters.

Paratroopers when created start with an XP of 50 and will lose any previously earned XP.

Number of German SS units increased by one for 42', 43', 44'. Increased by two for 1945.

## MAP CHANGES-

Capital of Netherlands renamed to Amsterdam.

Altered coastlines, borders, rivers, terrain and resource locations to improve map accuracy for Spain, Portugal, Italy, United Kingdom, Ireland, and France.

Moved Bergen 1xN + 1xNE.

Moved Sicily, Sardinia, and Corsica.

Improved Isle of Crete coastline

Added rail depots and ports of Portland and Providence in USA

Changed name of second Capital in Canada for United Kingdom to Quebec.

Added port of Saint John. Moved Mine and Edmundston out of Labrador South

to playable area of Canada.

Created new Out of play area of Labrador.

Added Goose Bay airfield to Labrador.  
Added Tundra terrain to Labrador.  
Added airfields Stephenville and Gander to Out of Play area Newfoundland.  
Added city / port of St. John's to Eastern Newfoundland.  
Extended Germany Border South near Switzerland, Corrected the Maginot  
line  
and France/Belgium border.  
Added more forest to Normandy peninsula and near Le Harve city.  
Many cities, resources moved and some renamed. Too many to  
enumerate here.

## SCENARIOS-

Scenarios updated to incorporate new map terrain, resources, and  
location  
changes.

V3.20 juliet      date 02/06/2016

Categories

Bug fix

- 01) Fixed bug concerning displaying Free French partisan units that were  
under UK  
control.  
02) Fixed bug concerning Free French units in Forts and resources losing  
gained  
entrenchment value after Germany refuses Armistice.

V3.20 kilo      date 5/19/2016

Categories:

Map

New terrain types:

- \* Depression (used for the Quattara depression)
- \* Forest Hills
- \* Lake (can become frozen in the winter and thus possible to enter)

\* Salt Lake (used for Chott El-Jerid)

Cover terrain - Forest, Swamp, and Forest Hills are considered to provide protection from air unit attacks. Forest Hills are Rough hexes that provide dense tree cover. Air Units which attack ground units in Cover terrain have -1 Ground attack value and -2 Shock value applied to calculate combat results.

The reduction will not go below 1. These values will be displayed in the Unit Panel.

Terrain combat changes:

\* Air units get -1 ground attack (not below 1) and -2 shock attack (not below 1)

if attacking into covered terrain (forest, forest hills, swamp). \* Mountain penalties reduced

from 50% to 40% to make it less than fortresses.

It was too big a gap between Rough and Mountain.

New resource types:

\* Fortifications- Will replace fortresses for the Gustav line, Mannerheim line, Siegfried line.

Stalin line along the southern Polish border.

note: Fortifications can not be railed into or rail out of unless adjacent to a city or rail depot.

\* Fortified city - Most fortresses will now be fortified cities instead. E. g. Scapa Flow,

Gibraltar, Malta, Leningrad, Luleå, Thessaloniki, Mareth, Tobruk, and Cologne. Only

remaining fortresses are the Maginot line hexes and Sevastopol. The Atlantic wall

and Eastern Germany cities will now be fortified cities instead of fortresses.

\* Fortified capital- Washington, New York, London, Hamburg, Berlin, Moscow, Omsk. Paris,

Rome, and Quebec are now Budapest and Warsaw will become fortified capitals late game

as part of the Eastern German city upgrade when Russia closes in on the German border.

Map changes:

- \* Labrador, Newfoundland, Greenland, and Iceland are now Out of Play areas.

- \* Added a new transport loop between Norwegian Sea and White Sea. Archangel is now a port city. So USSR can now build naval units in Archangel and send these to the Atlantic if they

- prefer to do so. The Archangel port will in many ways simulate the Murmansk port, but

- Murmansk is off-map. At least Russia will now have a sea link to the Atlantic as they had historically.

- \* Vyborg added to Finland and will change control to Russia when the Finnish winter war ends.

- This is more historical.

- \* Quite a bit of changes to Norway, Sweden and Finland coast line to make it look more

- accurate. US, Canada, Britain, France, Spain, Portugal, Germany, Italy, Sardinia, Sicily,

- Yugoslavia, Poland, Romania, Hungary, Bulgaria, Greece, Lithuania, Latvia, Norway, Sweden,

- Finland, Russia, Turkey, Vichy France.

- \* Oslo was moved 1 hex North.

- \* Changed terrain in most countries with hilly terrain. Mountain, Rough, Forest and Forest Hills.

- \* Added rail depots in Nis (southern Yugoslavia), Szeged (Hungary since Nagykanizsa was moved), Eskisehir (Turkey).

- \* Moved quite a few cities in the Urals. Removed Nishniy Tagil and added Tyumen (city) and Tobolsk (rail depot).

- \* Moved Kosice in Slovakia.

- \* Added lake Sevan in Armenia and moved lake Van in Turkey.

- \* Changed the rivers in Turkey, Bulgaria Lithuania, Russia, Poland and France.

- \* Changed the US and Canadian coast lines.

- \* Russian hero cities have become fortified cities. Those include Leningrad, Minsk, Smolensk,

- Kiev, Odessa, Tula, Brest Litovsk, and Moscow (fortified capital).

- Novorossisk is also a hero

- city, but not on the map. Krasnodar is the closest. Murmansk is a hero

city, but off map.

Kerch is a hero city, but the city is already so hard to take so keeping it a regular city is

good enough. It can only be attacked from 1 land side.

#### LAKE HEXES

\* Lakes hexes now freeze in Winter, Severe Winter weather. The terrain acts like Clear with a

supply value of 2. The owner of lake hexes will change dependent upon ZOC into the lake

hex. A friendly unit is worth 3 points. A friendly ZOC adjacent is worth 1 point. You need 1

point or more of ZOC than the other side to force the lake owner to switch side. You can

only force empty lake hexes to change side. If you occupy a lake hex you own it regardless

of ZOC.

\* Lebanon border moved 1xS south of Beirut. Mountain hexes moved and Damascus moved

1xSW.

\* Changed the Vichy French border so Vichy France got slightly bigger. Moved Limoges,

Toulouse, Le Mans, and Perpignan slightly according to the changed map.

Altered the border of Spain near Perpignan.

#### New unit types:

\* Mountain corps +1 on ground attack, +1 ground defense, +1 quality and +1 survivability

when in Rough, Forest Hills, Desert Hills, and Mountain terrain. Otherwise same stats as

corps.

Unit cost 45 PP's

\* Cavalry corps +1 ground attack and +1 shock attack when in Clear or Desert terrain.

5 movement range and not spending oil. Otherwise same as corps units.

Unit cost 45 PP's

\* Motorised corps. 5 movement range and spending 1 oil. +1 ground defense at armor tech 5. Otherwise same as corps unit. Unit cost 40 PP's

\* Mechanized corps. Same as before, but now have 3 image levels. Lowest earlier image level

moved to motorised corps.



Leader changes:

- \* Attaching leaders will not prevent the unit from moving, attacking, repairing, upgrading, rail movement, transport loading (transport can still move) .

OOB changes:

- \* Some changes to most countries. Replacing mechanized with motorised for Sweden, Germany and UK. Replacing mechanized with cavalry for Romania.

- \* Added mountain and cavalry to some countries like Poland, Hungary(only mountain), Romania, Yugoslavia, Turkey (only cavalry), Italy, Germany (only mountain) and USSR.

- \* Improved OOB setup for Turkey, Sweden, Yugoslavia, Greece, Italy and UK (in Egypt).

- \* Removed 2 Australian corps units from UK in Egypt. Instead they get 2 corps in

- Basra when Egypt activates (same as before), but these ones will be 2nd New Zealand

- and 1st South African. Added 2 corps units to UK in Kuwait when the Iraqi rebellion

- starts in April 1941. These will be the 9th Australian and 21st Indian. So total

- number of corps will be the same, but 2 corps arrive in 1941 instead of being

- on the map from the start. That simulates better the Far East reinforcements

- being sent to Egypt at key events.

- \* Leclerc's mechanized unit will spawn near Cairo instead of Agadir when Free France

- activates. This is because Leclerc fought with the British and not the US.

- Leclerc attacked into Libya from his bases in Chad and joined the UK storm

- on Mareth for example.

Bug Fixes

\* Unit morale being affected by mouse hovering over an enemy unit. Caused by odds calculation to not reset the morale back to the value before odds calculation.

V3.20 kilo    Date: 05/21/16

Bug Fix.

\* Rail bug concerning raling to Fortified Capitals. You could not rail adjacent.

V3.20 kilo    Date: 05/29/16

\* Correct the movement for Mechanized in Severe Winter. This increases the movement to 2        hexes like before.

\* Correct the production bug discovered by Morris, naming bug for Nis in Yugoslavia.

\* Fixed a bug where leaders put directly on units weren't removed from the purchase list (i.e.    Leclerc and de Gaulle)

\* The production bug was miscalculating production costs when reaching over-limit amounts.

Changes to leaders for testing.

Command range is now quality – 3. Added separate info about command range when

purchasing commanders

Changed the commander cost. Cost is way lower than before. e.g.

Manstein cost was 75

before and reduced to 42 now.

These reductions are based on v3.10 costs. Changed graphics so only ground units are

shown within range of commanders.

So ranges for leaders as a rule of thumb

Corps commander: Command range 0  
Army commander: Command range 1-2  
Army group commander: Command range 3-4  
Supreme commander: Command range 5+

Number of leaders increased at beginning of 1939 scenario

Germany - Runstedt, Blaskowitz, Kliest  
Italy - Graziani, Balbo, Cavallero

UK - Aukinleck, Cunningham, Gort

France - Gemein, Weyland, Huntzinger

USA - Devers, Bradley, Clark

Russia -  
Timenshenko, Eremenko, Pavlov, Voroshilov, Cherevichenko, Kirponos

Since leader ranges are shorter, we decided to have Air and Naval units now receive Morale

bonus abstractly from technology. Using Organization + their main unit tech will determine

the bonus. So leaders are no longer needed to placed near air or naval units to boost their morale.

Formula in set in general.txt, but is currently like:  $((\text{organization} + \text{main stat}) / 2 + 2) * 2$ .

FTR's use Organization and Dog Fight /2

TACs use Organization and Ground Support /2

SAC's use Organization and Strategic Operations /2

BB's use Organization and Surface Ships /2

DD's use Organization and ASW /2

Sub use Organization and Submarines /2

CV's use Organization plus Dog Fight and Surface Ships / 3.

V3.20 kilo Date: 06/02/2016

A bug was discovered where a partisan spawned on a non-frozen lake hex in summer.

This fix prevents partisans spawning on Lake, Salt Lake, Depression or Dunes hexes.

V3.20 kilo Date: 06/05/2016

The update attached includes the new game rules. Belligerent Major Powers may not enter coastal hexes of neutral Major Powers before the countries become activated. If hexes have shared ownership those hexes can be entered. Italy, Russia, and US coastal hexes can not be entered until activated.

This eliminates the exploit. This update also includes scenario changes moving the US sub to Portland and BB to Norfolk ports. French and Free-French motorised images in case you did not get these. There is also a gui fix where Axis armor is named "DAK" for zoom level 3 on map.

v3.20 kilo Date 07/08/16

It was possible to advance after combat into a lake hex in a non winter turn. Now you can

attack, but not advance Leclerc will spawn near Kuwait if the Axis have reached the Nile in

Egypt. If the Nile is overrun and the Axis are also in Iraq then Leclerc will spawn near Agadir with the rest of the Free French forces.

Fixed a bug issue where when checking combat odds for naval units lowered the morale of the defending unit now fixed.  
Addition: Added code so armor and mechanized corps units can't enter lake hexes even in winter terrain.

v4.00 alpha Date 7/18/16

Increased the command range for Konev from 2 to 3  
Added command range to zoom level 2 for large and small counters  
Added leader quality in a blue circle for large and small counters.  
Moved the XP number from the upper left to the lower right for large counters  
Added commander stats when you deploy new units. This way you can see the commander stats before you actually deploy them. Before you had to hover the mouse over the image to get the tooltip

v4.00 beta Date 08/18/16

Altered shock army from mech corps to regular corps  
Made it possible to promote shock armies to guards  
Shock armies are identical to regular corps, but with +2 shock attack (represents extra artillery in shock units), +1 ground attack (represents tank units attached)  
Split the event with shock armies and Siberian units. 4 Shock armies arrive slightly later in the force pool.  
Set max shock armies to 5 (can be changed in general.txt) If you lose shock armies, new purchases you purchase of regular corps units will be shock armies until you the limit of 5.  
The purchase unit panel will show shock armies for corps for USSR until you've reached the limit, then the image will change to regular corps  
First turn you can purchase shock armies will be the turn after they arrive

in November

1941. Player can not purchase shock armies prior to November 1941.

Changed the scenarios so shock armies are altered from guards mech to regular shock armies.

Also fixed some issues in some scenarios like Lvov not being garrisoned in the 1941 scenario.

Change the code for unit swap so it's now possible that the unit that initiated the swap, may attack units adjacent, load onto transports, and use rail transport. After you've swapped positions, you can not move except as noted before.

Increased the allowed number of guards units in 1941 from 2 to 4 since the shock armies will start at 15 XP instead as guards. Changed the Siberian reserves from to 1 tac bomber, 1 fighter, 1 armor, 1 mech, 2 corps. All start at 10 XP

Changed the leaders so Devers arrive in 1941.  
Changed the leaders so some more Soviet leaders arrive in 1940 in case of an early Barbarossa  
Reduced the rail cost for motorised corps from 4 to 3  
Fixed a bug regarding Dutch starting strength so they now start with 7 steps for corps and 5 steps for garrisons.

Increased leader purchase cost so it's now impossible to purchase a leader with +1 ground attack on turn 1. Combined with the change to Holland it will make blitzkrieg taking Brussels on turn 2 a bit more difficult

v4.00 charlie Date 09/01/16

Bug fix concerning showing stats for Shock troops correctly in the build queue.

v4.00 charlie Date 09/03/16

Introduced new leader system -

\* Specific Leaders are placed in the force pool at the start of each year.

\* 1939

Germany -

Bock, Leeb, Reichenau, Rundstedt, may purchase future  
leaders.

Italy -

Badoglio, may purchase future leaders.

United Kingdom -

Gort, Wavell, may purchase future leaders.

France -

Billotte, Gamelin, Georges, Pretelat, may purchase future  
leaders.

United States -

May purchase future leaders.

Russia -

First set of Leaders free appear in 1940. May purchase future  
leaders.

\* 1940

Germany -

No leaders placed in force pool. Player may purchase future  
leaders.

Italy -

Ambrosio, Garibaldi, Graziani, may purchase future leaders.

United Kingdom -

Brooke, Ironside, may purchase future leaders.

France -

Girard, Huntziger, may purchase future leaders.

United States -

May purchase future leaders.

Russia -

Budenny, Pavlov, Popov, Timoshenko, Tiulenev, Voroshilov,  
may purchase future leaders.

\* 1941

Germany -  
Guderian, Hoepner, Hoth, Kleist, Rommel, may purchase  
future leaders.  
Italy -  
Cavllero, Gambara, may purchase future leaders.  
United Kingdom -  
Auchinleck, O'Conner, may purchase future leaders.  
France -  
Weygand.  
United States -  
Devers (Pearl Harbor Event). May purchase future leaders.  
Russia -  
Kirponos, Kuznetsov, may purchase future leaders.

\* 1942

Germany -  
Kluge, Kuchler, List, Manstein, Paulus, may purchase future  
leaders.  
Italy -  
Basic, Messe, Roatta, may purchase future leaders.  
United Kingdom -  
Cunningham, Montgomery, Ritchie, may purchase future  
leaders.  
United States -  
Patton, may purchase future leaders.  
Russia -  
Cherevichenko, Chuikov, Eremenko, Gororov, Konev,  
Meretskov \*, Sokolovsky, Zhukov, may purchase future leaders.  
(\* Meretskov arrives with Siberian forces)

\* 1943

Germany -  
Arnim, Blaskowitz, Hauser, Heinrici, Vietinghoff, Weichs, may  
purchase future leaders.  
Italy -  
May purchase future leaders.  
United Kingdom -  
Alexander, McCreery, Wilson, may purchase future leaders.  
United States -  
de Gaulle \*, Hodges, LeClerc \*, Lucas, Patch, may purchase  
future leaders.



(\* leaders will spawn with Free French forces when Torch happens prior to 1943)

Russia -

Malinovsky, Rokossovsky, Tolbukhin, Vasilevsky, Vatutin, may purchase future leaders.

\* 1944

Germany -

Dietrich, Kesselring, Manteuffel, Model, Schorner.

Italy -

May purchase future leaders.

United Kingdom -

Crerar, Dempsey, Leese, Simonds.

United States -

Bradley, Clark, Collins, Eisenhower, Ridgway, Simpson,

Truscott.

Russia -

Bagramian, Chernyakhovsky.

\* 1945

Italy -

Aosta

\* Removed debug code from Game.class.

v4.00 Charlie Date 09/16/2016

Fixed the bug reported by Mamahuhu about routing of movement through lakes.

Earlier sent fix regarding shock unit info prior to purchase is also included.

Changed in general.txt so Italy gets a fighter at 5 steps in Libya, France a bomber at 5 steps

near Marseilles, deactivated the Canadian fighter, changed the strength of the Swedish and

Spanish fighter to 5 steps, deactivated the Spanish bomber,

Added a US fighter near Washington, German fighter near Frankfurt and Soviet fighter near

Minsk.

Updated scenario files with these changes. Also fixed the front line in Russia for the 1942 scenario so the German unit south east of the Ilmen lake isn't out of supply.

Changed the message files for the Canadian mobilization so it only shows the land units and not the air unit

Decided to let the USSR fighter spawn at 10 steps since it starts so close to the border and

can't move. It should be possible to decimate a bit if the Germans deploy accordingly.

v4.00 Delta Date 11/29/16 (for final release)

Fixed bug where the opponent could see leader colors in FoW areas when the turn ended.

Added PP's to Axis minor capitals that did not display any. Sofia and Bucharest are now worth two PP's each.

v4.00 Echo Date 12/17/16

Land based air units can only base on Clear, Sand, In and around resource hexes. Prohibited

Air Units basing on Mountain, ForestHills, Swamp, and Dune. Added Bastia in Corsica and

Catania in Sicily as rail depots to allow more airbases for Italy.

Made it possible for the Germans to deploy units in Strasbourg after France surrenders.

Made changes to Technology.txt (which adds transports to surface ships tech 1 and tech 3.

This was done to reduce losses down to 3-4 steps per full strength tactical bomber attack in 1943-1944).

Changed General.txt to increase severe winter loss from 27 to 28

Data / scenario folder:

Updated scenarios 1939.scn to 1944.scn and ww2.map files. This updated map with Bastia and Catania, fixed errors in Greece Peloponnes where some rough hexes were tagged as mountain, moved some air units into legal airbase hexes.

Added transport images for Russian Shock, Russian Shock Guards.  
Updated code to remove transport text bug.

Moved French leaders to year 1945 to allow Free French leaders to arrive attached to units whenever Touch is initiated.