

A. Documentation:

It would have been good to have documentation on things like the changes to the tank armour. Generally speaking, a change log would be greatly appreciated in future versions.

It would also help to have more information in the readmes (such as how to access the two ring sites on the I-15)

B. G-Forces and structural failures (an approximation for aero forces while under G):

- 1) It would be great to have a high roll rates temporarily increase the probability of structural failure while pulling high-g turn (due to the aerodynamic forces putting additional pressure on one wing). This would add another element to flying gently and cause a chance of structural failures in spins (especially noticeable in bombers - which can currently survive spins without problems).
- 2) It would also be great to have structural failures from negative G's (as many aircraft weren't stressed for such loads)
- 3) The Il-2 3M experienced wing damage/failures if its 37mm guns were fired in prolonged bursts. Given the new system for structural durability - this might be a neat addition.

C. Minor inconsistencies

- 1) The fuel tank intersects with intake on Spit IX HF
- 2) A TB3 4M34R loadout has an error (lists 4xFAB-500 2xFAB250 when there are four FAB250)
- 3) The Tiny Tim rocket still lacks dispersion (which means it is still a super weapon)
- 4) The bombardier's position in Ju-88A4/torp shows the external model when the cockpit is shot up
- 5) X-4 rocket salvos are now possible (as a result of the modifications made for air-to-ground systems)
- 6) The bow effect looks "odd" on the flat nosed craft (german river boats and probably the landingcraft)
- 7) Launch constraint should probably be added for the parachute-torpedoes (the LT350 had maximum and minimum release heights and speeds).
- 8) Some of the new aircraft show up in the "object viewer" but lack text entries. There are mods which add text for some of the unlisted default aircraft, and it would be neat to see them incorporated/expanded (I could help with this).
- 9) The SC-2500 still has a time delay. In reality it couldn't be fitted with one because the trigger system relied on the deformation of the case during impact. I'd created a mod which removed the time delay - but it is incompatible with the new system.
- 10) The SD1000's texture is inverted and the size of the SD1000 is unusually small. Btw. It would be nice to incorporate a couple more bombs (like the PC-1400, SB bomb and smaller SD sizes).
- 11) The addition of a two-second arming delay is problematic for delivering small (<20kg) bomblets in pairs from aircraft. I personally think it is a great improvement for the Il-2's larger AO-10 loads, but I wonder about the I-15 ((I don't know what is historical - just what doesn't work).
- 12) I suspect that Railway locomotives should have a slightly higher resistance to 20mm cannon fire (boilers with 130mm curved steel). It might also be good to slightly increase the durability for some railcars (as the objective is to destroy the cargo as well as disabling the train). Of course, it would be ideal to have a three stage damage model - with an intermediate level of damage (eg. cars on fire) - but this is beyond the game engine.

D. Suggested tweaks:

- 1) Thunder and Lightning still appear during snowstorms
- 2) Napalm effects could be tweaked (in particular Pacific Fighters screwed up the M-13 rocket)
- 3) Mig-3 cockpit corrections would be great (having the square glass plate on the 2xUB and 2xShVAK variants - as shown in the external model)
- 4) It would be very nice to have an intermediate high-explosive impact effect for the 30mm weapons (ie. something in between the 23mm and 37mm impact effects - it currently uses the

latter).

5) The Do-335A-0 has MG-151/20 mounted above the engine. However, the MG-151/15 was initially preferred for the prototypes as its ballistics were closer to the Mk-103s. It would be nice to see this added as an option. It would also be neat to have two gun loadouts for the Tomahawk (Russian field mods removed the 0.303s) and P.11C (2/3rds had the wing guns removed), as well as cargo containers for the TB-3 and He-111.

E. Other suggestions:

- 1) I'd highly recommend a watered down version of Zloypetrushko's AAA gun suppression system
- 2) I would still like to have "heavy AAA" and "light AAA" options for the QMB (I'd be happy to code the modified templates).
- 3) It would be neat to add a random control surface offset to aircraft whose pilots have been killed. I remember one account of an Italian bomber which looped the loop after its pilot was shot.
- 4) It might be good to check the blast effects for cannon rounds (against ground targets). I think Il-2 might under-estimate these values for the 45-76mm weapons.