8-8-14. Well NATO CENTAG is complete. I will probably be upgrading the southern flank of NATO, i.e. Italy, Spain, maybe Greece and Turkey. As you have probably observed, I have been publishing some North Korean units. What you may have noticed is some difference in the Direct Fire charts for previously published weapons systems, namely 100mm cannon armed tanks (Russian D-10 cannon). This represents the different type of ammunition available to the North Koreans for these systems. Most of the SU-100s were produced in the 40s and 50s; the Type-59s and T-55s were manufactured up into the 1970s and 80s. As the weapon systems improved so did the ammunition. Penetration values increased and weapon system accuracy improved. The PT-85 (or Type 82) was indigineously developed by the North Koreans. It utilizes the Russian D-70 85mm cannon (same as ASU-85) and the Sagger ATGM. The few photographs I have found show a rail system without the missile, mounted above the gun. You will also find the Ch' onma-ho 4 (Cho 4) main battle tank. The Ch'onma series tanks are basically North Korean manufactured and modified Russian T-62s. The Cho 4s have slightly improved armor and defensive systems. I will put out a few more of the 1980s and 1990s generic North Korean Units and some South Korean units then concentrate on specific 2010 era units. Look for the Israelis and Arab nations also.
Last minute update to the Soviet Fire Chart 4 in regards to the MANPADS SA-7 and addition of the SA-14/16. I am not sure where GDW got the range information for the SA-7 but in reality it was only about 3700 meters or so. The SA-14 and SA-16 SAMs became available in 1983 and 1987 respectively. I would suggest using the SA-16 for Soviet GSFG Units, the SA-14 for Soviet CGF Units and the SA-7 for everybody else until the early 1990s when I would just use the SA-14 for non-Soviet Units and the SA-16 for Soviet Units. It's your simulations, feel free to use any and all. Enjoy!
8-12-14. I corrected the values for the SU-100.. I did not realize I had transposed the values from another vehicle onto the counter for the SU-100
8-14-14. Updating of the 1990s and beyond fire charts continues. I upgraded the U.S. infantry charts to account for improvements in anti-tank and anti-personnel capability, namely the FGM-148 Javelin. The Javelin is a fire and forget missile that uses infared imaging guidance as opposed to wire-guidance (Dragon) or laser-guidance (Hellfire). More detailed was added conerning Enhanced SPGs (M109A6, AS-90, etc.) capabilities. With these modern systems, you basically have a unit that can fire indirect fire missions as quickly as a unit can fire direct fire missions. 5 minutes per game turn is a long time. I am working on correcting the data for the MANPAD SAMs. For the most part, the original data over-estimated the range characteristics of the SAMs, most notably the FIM-92 Stinger. These updates to fire charts mainly concern the 1990s+ systems.

8-18-14. Okay, the U.S. 2nd Infantry Division circa 1980-1989 is now on both the U.S. page and the ROK 1980s page. Thanks to Pat Callahan for the ORBAT. Since the 5-5th Air Defense Battalion has such a unique organization that I included the FIM-92 Stinger counters. These should be considered Stinger-Cs. Working on getting the 2010 versions of the ROK, NKPA and U.S. out in a week or two. Enjoy.

8-26-14. Currently working on the 2010 version of the U.S. 2nd Infantry Division for Korean Assault. I have finished the 3rd Stryker Brigade Combat Team. VERY interesting. From the information I have found the orgainization of the Brigade Combat Teams changed from the early 2000s. The initial Engineer Company was expanded to a battalion consisting of 2 company engineer companies and an anti-tank company. Strykers have been fun to model. I hope to have this done in a week or two more. I may just go ahead and publish the U. S. Army in its 2010 configuration.

9-2-14. The 2010+ edition of the U.S. 2nd Infantry Division is available. Strykers are an intesting vehicle. The M-1129 mortar variant is equipped with a vehicle mounted mortar (either the Soltam 120mmm or the M-252 81mm mortar) and a mortar for dismounted use

(either the M-252 81mm mortar or the M-224 60mm mortar). The Division now features the Brigade Combat Team (BCT) concept and some further changes to the engineering and logistic assests in the Brigade Engineer Battalion and the Brigade Support Battalion. You will also find the MRAP and the new Family of Medium Tactical Vehicles (FMTV) that replaced the M-900 series of trucks. A very interesting system is the Counterbattery Rocket, Artillery and Mortar system (C-RAM). C-RAM is basically a land based Phalanx CIWS called Centurion. It uses a 20mm gatling gun to intercept incoming rocket, artillery and mortar fire. It has been used successfully in Afghanistan. It is similiar in function to the Israeli Iron Dome. More to come.

9-3-14. I have updated the Rules with the information for the C-RAM. These are available on the U.S. 2nd Infantry Division page and the Rules page. I am going to revise the Home page, I think it can look better and be more functional. I am also going to be completing the rest of the Warsaw Pact. I will periodically add more North Korean and South Korean units, including 21st Century systems. I may even go ahead and do a complete 21st Century version of NATO if you would like to see it. Enjoy
9-6-14. Got the U.S. fire charts upgraded for the new ammunition available for the Bradley's and 120mm mortars. Now you have Precision Guided Mortar Munitions (GPS) and the newest depleted uranium core penetrators for the 25mm chain gun. Also, I adjusted the 'A3Bs for the bolt ERA tiles. The U.S. Army Upgrades 2000 to Present article is now available. Enjoy.
9-7-14. The new ammunition upgrades for the U.S. IDF Data Chart 2005+ is complete. The PGMs currently in use rely on GPS rather than laser targeting. It is possible that these GPS rounds would have been available for a mid to late 1990s conflict. The M982 Excalibur development begin in 1992. GPS PGM attack the hex as in a standard HE attack. An upgrade to the Excalibur is currently underway to add semi-active laser system to allow the Excalibur to attack moving targets. Feel free to use any of the weapons and upgrades in any year after 1995. The GPS PGMs listed on the U.S. Indirect Fire Data Chart 2005+ are available to all NATO countries. The Excalibur can be fired from the M-109A6, AS-90, PzH2000 and the K-9. The M1156 upgrade kit allows any standard NATO 155mm round to be upgraded to a PGM.

9-8-14. Updated and upgraded the Soviet page. Added an indirect fire chart for upgraded Soviet artillery ammunition and systems. A lot of this stuff was available in the early 1980s. The 2B11 120mm Mortar is actually the more accurate data then the original game M-43 120mm Mortar. It replaced the M-43 120mm mortar in the early 1980s. You will see the TOS-1 on the Direct Fire Data Chart 3. The TOS-1 is a short-range MLRS mounted on a T-72 chassis firing 220mm rockets. The original TOS-1 had a range window of 500-3500m (2-16 hexes). In 2001, an upgrade TOS-1A was introduced with a range of 6000m (24 hexes). Currently the TOS-1s are assigned to NBC units. It was such a top secret weapon, I am not sure at this time what type of units it was distributed to before the 2000s. Look for it in the new Soviet Armies coming out in the next several weeks. Enjoy.

9-10-14. Back to the European Theater of Operations. I have added the Soviet 8th Combined Arms Army to the Pact. The 79th Guards Tank Division is ready for deployment. Further research shows that the TOS-1 and TOS-1A fits into the flamethrower catagory being a thermobaric weapon. I put it into the 20th Independent Flamethrower Battalion. There are only 15 in the Russian inventory today and they are in NBC Defense units. I thought that since the 20th IFB is such a unique unit it would be a good place to put the TOS-1. There is a new Soviet Direct Fire Data Chart 5 1995+. It includes updates to the Infantry HEAT weapons. The RPG-29 became available in the early 1990s and apparently from what I have read, it actually has proven effective against the Abrams. You wil also find the BRM-3; this is the FIST version of the BMP-3. There is no 100mm cannon but the 30mm is retained. It carries an upgraded version of the Small Fred radar found on the BMP-1 FIST. There is also the BAT-2 based on the T-72. The BAT-M is still available, the two served side by side for quite a bit. More to

come. Enjoy

9-11-14. REMEMBER 9-11 AND ALL THOSE THAT DEFEND US IN THE REAL WORLD AT HOME AND ABROAD.

9-15-14. Work on the Soviet 20th Guards Combined Arms Army is progressing nicely. It looks like I neglected to include Army level reconnaissance and anti-tank battalions. I will be going back and adding those. Also, there may be SA-15 air defense units available to some Soviet Divisions. I am researching that. More to come. Enjoy.

9-17-14. Completed the Soviet 20th Guards Combined Arms Army. Look for the Northern Group of Forces and the Southern Group of Forces and probably the Hungarians. Enjoy.

9-18-14. While working on the Soviet Northern Group of Forces, I have decided that the Soviet Leningrad Military District (6th Combined Arms Army) and Baltic Military District (11th Guards Combined Arms Army and 14th Combined Arms Army) are most likely to re-inforce the NGF and WGF. Soooooo, after I complete the Polish Army, I will probably add these units too. When I start on the Southern Group of Forces, I intend to add more Italian, French and Spanish units. I finally got around to adding the 211th Guards Artillery Brigade (2S5) to the Central Group of Forces. I am still looking for more in for on the CGF/NGF/SGF...Enjoy!

9-22-14. Great progress on the Southern Group of Forces. The Hungarian Army has been fun to model. The Hungarians, apparently, preferred to leave it all to the Soviets for the most part and garrison duty in Hungary was much sought after by Soviet troops. The Hungarians utilize the FUG/PSZH-4 as a wheeled APC quite extensively, though the BTR-80/BTR-80A was adopted in the late 90s. Though mostly equipped with T-55/T-55Ms, there was one armored division and a tank brigade equipped with the T-72M. Enjoy!

9-24-14. Okay, so I read a contributer's comments on CONSIMWORLD Assault Forum, wondering if anyone had given throughts to UAVs (Unmanned Aerial Vehicles). I had actually and had worked up an optional rule and counters for such. SO I decided to publish what I had come up with. I HAVE NOT playtested the design but I thought I would you try it out. I approached UAVs as I did jet aircraft, from the simplistic end of the complexity scale. I was looking for a system that would not dominate or distract from the game such that the "FUN" is eliminated. Early UAVs or RPVs (remotely piloted vehicles) that I remember from Ft Stewart in the mid-1980s, were hand launched vehicles. They were mostly used for reconnaissance/intell gathering purposes. The big UAVs, like the Predator, begin entering the scene in the mid-1990s. In any scenario after 1995, I suggest using the UAVs with the direct fire weapons option. Prior to 1995, I suggest not using the weapon stations. After 1995, with the bigger UAVs they got easier to detect and shoot down. The Iraquis shot down at least 2 prior to the 2003 invasion, one by aircraft missile fire, the other to SAM fire. The majority of the

Predators lost were lost to inclimate weather and faulty procedures. Early UAVs did have range and endurance issues but you could probably keep one on station for around 4 hours on average. I limited the distribution to NATO and SOVIET Divsion/Corps/Army HQs. One UAV each. The UAV can be task assigned down to a brigade HQ. There are actually specific units assigned UAVs. Once I get some comments back as to playability (and get to try it myself) I may go back and add those to the counter-mix.

You will also notice LASER counters in the NEUTRAL section. These are player aids for identifying units that have employed a laser for designating or targeting purposes. If targeting an enemy unit that is equipped with a laser detection system, i.e. Soviet Shtora, place the laser counter on the unit utilizing the laser IF the laser detector equipped target successfully conducts search for the unit using the laser. ENJOY!
9-25-14. Surprise....Updating the Italian Army pages. Hope you like. Enjoy

10-02-14. Okay, so I am upgrading the various countries pages. I hope you find them more functional and user friendly. I have also begun to upgrade the Fire Data Charts. Just select the era for your simulation and go for it. I used the original American 1980s era Fire Data as a base for the factors in computing upgraded factors for modernization of weapon systems. The orginal TOW missile penetration factors were based on erroneous data released by the government. Recently declassified data shows that actual basic TOW capabilities were about 2/3s of what was published. The correct value for the basic TOW should be 11 based on the actual penetration value of 430mm of Rolled Homogeneous Armor (RHA) and 16 for the I-TOW (630mm); rather than the 800mm of the BGM71D TOW 2 (game factor value of 20). Further upgrades in anti-tank rounds occured in the mid-90s as the Americans moved from the good ol' M829A1 Silverbullet APDU of Desert Storm fame to the M829A2 (in 2003 the U.S. moved on to the M829A3). So, look for these upgrades and please send me any comments or observations. ENJOY!

10-3-14. Got a hold of portions of a Janes Ammunition Handbook. A lot of data available now was classified during the original design of Assault and was not available to the designers. As such a lot of fire data was inaccurate. That's why I am going to break down the fire data into eras; original Fire Data Charts; 1986-1990; 1990-1995; 1995-1999; 2000 +. For now I am going to concentrate on the 1990-1995 and 1995-1990. I have got some revisions for the unit factors too but for the most part I don't think they are really significant until the very late 1990s-2000s. ONe change you will see is that the Challenger 2 should have a movement rate of 4. You will also see some adjustments to the ammunition supply. I am not quite sure what exactly the thought process was in determining those numbers, some appear spot on but others are way undervalued. Use what ever you want. Hopefully, I am providing you with as an accurate simulation as possible. Enjoy!!

10-6-14. Upgraded the Challenger 2s in the UK 1st Armoured Divsion. I will get the rest of them in the next couple of days. The movement allowance should be 4 not 3. Upgraded the French and German Fire Charts...look for more of that. ENJOY

10-7-14. More research. The 76mm Scorpion was out of British service by 1994-1995. Some sources report that this version of the Scorpion was replaced by the Cockerill 90mm version. I have found another source that reports that the Scorpions were replaced by the Sabre, basically a Scorpion with a Fox 30mm gun turret. Either way, both models were done away with by 2003. Also, the Soviet Fire Charts 2, 4 and 5 are updated and corrected. Enjoy.

10-9-14. Some of you have noticed the change in the ammunition supplies, most notably for the Leopard 1s. Well, the Leopard 1 had an internal storage capacity of 60 rounds. That actually equates to an ammo supply of 20 in game terms. I have found in "reverse engineering" the numbers of Assault, that Frank and company liked working in 1/3s, 1/4s and 1/2s. So in keeping everything in the same scale, the M-1 as a base, I have adjusted the numbers. Our base, the M-1 (105mm), has an ammo capacity of 55 rounds. The game factor is 18 rounds. Simple math tells us that 1 real round equals .327 game round or 33%. The Leopard 1, as stated, has a capacity for 60 rounds which equates to 20 ammo supply of main gun rounds in real life. Round up on the fractions over a 1/2. Penetration factors were pretty simple to figure out also. The de-classifying of information has really changed some of the numbers that were originally published. The TOW missile is a prime example. The penetration value of ATGM is pretty constant throughout its range. These appear to have been determined by multiplying the actual penetration value by .025. Why? I guess since the penetration values are expressed in terms of millimeters of Rolled Homogeneous Armor (RHA), the factor should be kept in terms of 1/1000. So in the original game, the official numbers for the TOW missile was that it could penetrate 800mm of RHA. 800 multiplied by .025 gives a game factor of 20. In actuality, we now know that the original I-TOW could only penetrate about 640mm of RHA for a game factor of 16. Now, since ATGMs at the time of the game had HEAT warheads everything was kept in terms of HEAT factors. Main gun round factors appear to have been kept in terms of HEAT vs RHA. This works out to RHA multiplied by .035. A main gun HEAT round capable of penetrating 400 mm RHA equates out to a game factor of 14. Since AP and APDU rounds are more capable then HEAT rounds in penetrating armor, it appears that it was determined to allow AP and APDU rounds to automatically penetrate if the factor was equal to or higher than the corresponding armor factor. I think that is a fair assumption for the APDU round but reality turned out be quite different for the AP round which should follow the same process of the HEAT round when determing penetration but only versus COMPOSITE ARMOR. Simple laminate, conventional or unarmored units versus AP or APDU should be automatic penetration if the Penetration Factor is high enough. The original designers could not have known this until after Desert Storm. There you have it. Feel free to use whichever charts you desire. Combine them, make up your own. Enjoy the game and pass it on.

10-18-14. Just finished adding the Polish Front Command along with two unique units, the 6th Air Landing Division and the 7th Sea Landing Division. Sorry I do not have coastal maps. I am working on them but I have not been satisfied with my map making. Rule 43 is intended to give guidelines for a Naval Assault. The LST class ships are actually LUBLIN Class LSTs built in Poland in the 1980s. They only built 5, though 12 were planned. The PCL class ships are actually the predecessors to the LUBLIN Class LSTs; POLNOCNY Class LSTs. Less capable then the LUBLINs, the POLNOCNY counters represent 4 of the POLNOCNY C class ships. More Poles to come along with some new Polish modifications to Soviet systems that took place in the 1990s. ENJOY!
10-19-14. Got the Polish 4th Combined Arms Army going. I finally got some PT-91s back on the website. If you remember I had a Polish tank division when I first opened the site. I decided that what I had published was not accurate enough so I got rid of it. I think what I got now is closer to what you may have seen with the Polish Warsaw Pact Army in the mid- to late-90s. Hopefully, I will finish the 4th PCAA by the end of the week. Maybe back to NATO or more Czechs, Hungarians and Poles. We'll just have to wait and see. ENJOY!!

10-23-14. Finished the Polish 4th Combined Arms Army. Just a reminder, check the Fire Data Charts when new units are added. There may be upgrades or additions to account for previously unpublished units. Enjoy.

10-25-14. I have begun upgrading and updating the Czech Army. The PRAM is a Czech version of the 120mm automatic mortar. It is mounted in a BVP-1 chassis, carries about 80 rounds of HE and also is equipped with the AT-5 Spandrel. You will also find OT-64As with AT-3 Sagger M's. There is one missile mount on each side of the turret. I have also begun adding the Czech versions of the Hungarian FUG and PSZH-4. In the near future I will be publishing the Czech BPzV-1, a Czech FIST developed from the BVP-1 (BMP) that retained all the armament of the BVP. I want to punch out the Czech 4th Army this next week before heading back to NATO and probably adding French, Italian and Spanish units. I have actually begun working on the Greek and Norwegian Armies. IF I decide to get into Scandinavia, I suppose that will mean adding the Swedes and the Finns. IF I decide to go into the Balkans that well mean Yugoslavia, Romania and Bulgaria. Anyone have a preference? ENJOY!