

SHIPS, SCENARIOS, AND UTILITIES MANUAL SUPPLEMENT

Introduction

Thank You for purchasing SSU disks #1 and #21 with 3 utility programs, 28 new ship classes and 13 new scenarios, we're sure you are in for a great gaming experience.

You will need to do some disk housekeeping to get things rolling.

If you have a HARD DRIVE, you should have all your ACTION STATIONS! programs on one directory. Use the XCOPY command to copy the contents of the two SSU disks on to that directory.

If you have a FLOPPY DRIVE, you will have to copy some files on to specific FLEET disks. Make sure you have room for them by deleting one or more scenario files off the disks (of course, keeping the scenario files on another disk!).

(All of the files listed below have the suffix .SHP.)

Copy on to your PACIFIC disk the files MI IV TN TS BZ DM W! SU YS OZ 65 F1 M4 N3 F2.

Copy on to your ATLANTIC disk the files LN VD IC RW BK SW CX FU SY D2 H5 CP HO RU DK LA.

S - 1. UTILITY PROGRAMS

A. Swap Add

Swap - Add is a simple program which allows you to take an existing scenario and swap ship classes, add additional ships, or delete ships. It is both simpler and quicker to use this program instead of loading the scenario into the CSCENE scenario editor.

1. Starting The Program

Hard Drive: The program SWAP - ADD. EXE should be placed on your hard disk, in the same directory as the rest of your ACTION STATIONS! files.

Floppy: SWAP - ADD. EXE and BRUN20. EXE should be on the floppy in the drive which is currently active.

To Start: Type SWAP - ADD <RET>

2. Loading The Scenario

The program will load, and then ask you to "Type the file name of the scenario (without .SCN) and <RET>". For example, the file name of the Mers - el - Kabir scenario is KABIR, SCN; to load it, you would type KABIR followed by hitting the return key.

Throughout this manual, <RET> means hit the return key. In all the utilities, data and choices will be entered and followed by a <RET>.

3. Initial Menu

The program then gives you the option to list the Blue ships, the Red ships, or both sides. By selecting to display only one side, you can preserve some of the uncertainty as to the other sides exact composition of forces.

To select an option, enter the number, then <RET>. For example, to display both sides, enter 3 <RET>.

4. Ship Listing

The ship display lists the number of the ship, the individual ship's name, and the ship's class. For example,

5 MISSOURI / IOWA

Indicates that ship number 5 is named the MISSOURI, and is one of the IOWA class.

Blue force ships are printed in white text on a blue background. Red force ships are printed in black text on a grey background.

5. Operations Menu

5.1 Swap a Ship allows you to replace a ship with a new ship. You can use any ship class for which you have a .SHP file - there are no restrictions as to the nationality or size. You will be asked for the number of the ship to be replaced, and the two letter code of the new ship's class. For example, to replace

5 MISSOURI / IOWA

with a four pipper destroyer, you would enter 1 <RET> to begin the swap; the program would then ask you to enter the ship number (5), and the two character class code of the new class (FP). Floppy disk owners must have the disk containing that ship file in their active drive. If it is not, you will get an error message and the program will terminate (think of it as a challenge...).

The new ship will be placed in the scenario with the course, speed, and location of the ship that it replaces. It will be undamaged and with full ammunition loads. You will then be requested to enter the new ship's name (which must be 8 characters or less), radar, crew quality, and number of aircraft onboard (aircraft will not be requested if that class does not have the ability to carry them).

5.2 Add a Ship allows you to add additional ships to the scenario. The program will ask you the number of the new ship, prompting you with the range of numbers available to add a ship to either the Blue or the Red side. The other ships will be moved over in number to make room for the new ship. For example, if the Blue side had ships #1 and #2, and the Red side had ship #3, and you wanted to add a ship to the Blue side as #2, the new ship would be #2, and the former Blue ship #2 would be renumbered as #3, and the Red ship #3 would be renumbered as #4.

After entering the desired ship number and two character class code is entered, you will be prompted to supply the ship's name, radar, crew quality, and number of aircraft (if installed). Since this ship is not replacing another, you will also be asked to provide the ship's speed, course, X - and Y - coordinate, formation number, and position number within the formation.

You will not be able to add ships if the total ships in the scenario will exceed 49.

5.3 Delete a Ship allows you to cut ships out of the scenario. You will be asked for the number of the ship to be cut. The numbers of the other ships will be adjusted as appropriate to fill in the gap.

5.4 Save Scenario - when you are completed with modifications, select this option. You will be prompted to provide the name for the file. The file name must be 8 characters or less, and conform to the DOS file naming restrictions. The scenario will be saved in standard Action Stations! scenario file format, with a .SCN suffix. For example, if you call your new scenario TORPEDO_SWAP - ADD will save the scenario in the file TORPEDO.SCN.

Note that if you name the scenario with the same name as an existing scenario, the old file will be overwritten, and you will lose that scenario!

5.5 Abort - several menus include an ABORT option. Invoking this option will terminate the program. The file loaded into the program (+ any changes) will NOT be saved.

B. DDFGEN33

The program DDFGEN33 allows you to create fleets for use in the GEN33 program.

GEN33 creates scenarios pitting various nation's fleets against each other. It is told which individual ship classes are in each fleet by the DDF file (DDF stands for Disk Definition File). For use with a hard drive and the original GENERATE program, there is one DDF file which defines all the fleets; if you are using floppy disks, there is a DDF file on each disk which defines the fleets and ship classes on that disk. For example, the DDF file on the PAC disk defines the ships that are in the Japanese and U.S. fleets. GEN33 is the replacement for the GENERATE program, and you can build the replacement DDF file using the utility DDFGEN33.

The program DDFGEN33 allows you to define your own fleets. By running this program, you will be able to tailor the composition of the fleet to your own desires, including limiting the numbers of ships in each class. There are no restrictions on how you mix - and - match your fleets. If you want to have a mixture of British and Russian battleships, Japanese cruisers, and Italian destroyer classes marking up a single fleet, have fun!

For floppy disk owners, the DDF file you create allows you to specify which nationality is on the disk. All of the ship classes named in the DDF file must be on that disk. When you run GEN33, and the DDF file states that a particular class ship is in that navy, GEN33 may try to include it in a game; if that class file is not on the disk, you will receive a "file not found" error message, and the program will terminate.

Because of the DOS limitation on the number of files which can be on a single disk, you probably will be limited to only one or two navies per disk.

The different DDF files are identified to the DDFGEN33 and GEN33 programs by the letters A through Z. They are stored with the file names DDF - A, DDF - B, DDF - C, etc. There are two files provided. The "A" file (DDF - A, LANT) is the historical fleets, including limits on each class. It includes all the ship files issued to date in the PAC, LANT, MED, SSU #1, and SSU #2 disks. The "Z" file (DDF - Z, DDF) is the "zero" file, and has no ships assigned to any of the fleets; it is provided as a clean slate, if you should want to build up a fleet from scratch.

Because of space limitations on SSU disk #2, you will have to run the DDFGEN33 program to build the DDF files for the FLEET disks that you already own, if you want to use them with the new GEN33 program. Just run the DDFGEN33 program, selecting the historical option, and selecting the following combinations of fleets to be included:

- for the PAC disk, build a DDF file containing the Japanese and US fleets;
- for the LANT disk, build a DDF file containing the British and German fleets;
- for the MED disk, build a DDF file containing the Italian, French, and Russian fleets.

GEN33 includes the capability of loading different DDF files. The program will tell you which nationality has been selected for the battle (or that you have manually selected), and request that you designate the appropriate DDF file to be used. It will then use the ships in the fleet as designated in the DDF file to create the battle.

1. Starting The Program

Hard Drive: The program DDFGEN33 .EXE and the files DDF - A, DDF and DDF - Z .FF should be placed on your hard disk, in the same directory as the rest of your Action Stations! files.

Floppy: DDFGEN33 .EXE should be on the floppy in the drive which is currently active. After the program is begun, you can remove that floppy.

To Start: Type DDFGEN33 <RET>

2. Initial Menu

The initial menu asks you for a starting place from which to begin constructing your tailored fleets:

- Option 1 is to begin with the historical fleets.
- Option 2 is to begin with a previous DDF file. If you have previously created a fleet, and now wish to modify it, you can reload the old DDF file. You identify that you want to retrieve by a single letter, A through Z. The "A" file is provided on the SSU #2 disk, and is the "historical" fleets. The "Z" file is also on the SSU #2 disk, and is a blank file.
- Option 3 is a "clean slate", where you begin without any ships in any fleet.

To choose an option, you enter the number followed by <RET>. If you should desire to begin with a previous DDF file (say, "X"), you would enter 2 <RET>, where upon you would be prompted to enter the letter of the desired DDF file. In this case, enter X <RET>. A note would be printed identifying the file (more on this later). You would then be given the opportunity to load a different file, if you had accidentally requested the wrong file.

3. Initial Class Limits Options

The next option is to select whether you desire "historical class sizes" or "unlimited class sizes". This decision simply determines the starting point, and does not mean that you are locked in to using those numbers. You can always enter the program and change them, as described below.

For the "historical" option, the computer uses pre - determined limits based on what was either planned or built of that particular class. If you do not agree with these numbers, you can go back and change them.

For the "unlimited" option, the computer will just use 50 as the maximum number of ships in a class. Considering that the GENERATE program has room for only a maximum of 22 ships on a side, this is more than enough!

4. Hard Drive or Floppy Disk Option

In the hard drive option, a DDF file is created containing all the 7 fleets. In the floppy disk option, you can create a DDF file which contains only the fleets of your choosing. This limitation is important, because you must have all the ship class files for that fleet on the same floppy. The program will prompt you to designate the fleets to be included in that disk.

5. Ship Listing

You will then enter the displays of the specific ship classes included in each fleet. For each nationality, you will page through a separate display of the battleships, cruisers, and destroyers assigned to the fleet. It is possible to cross - assign types, i.e. list a destroyer class ship in the battleship type display, but that will cause some weird scenarios to come out of the GEN33 program (results not guaranteed!).

The ship displays will sequence through each nation, with the first page for battleships, the second page for cruisers, the third for destroyers. The top line labels:

Class Number: The numerical order of the classes in the display;

Class Code: The two - letter code associated with that ship file;

Class Name: "IOWA", "BISMARCK", etc.;
Limit: The number of ships in that class.

6. Ship Listing Options

From the ship listing screen, you have the following options:

6.1 Add Class allows you to add a class of ship to the nationality and type currently displayed. You can add any of the ships included in either the original game disks or the SSU disks. The menu selection will walk you through the process. You will need the two - character class identifier. A maximum of 20 classes can be specified per type. You can add, for example, destroyers to the battleship list; however, you will then have the potential to get odd results when you use GEN33 to generate scenarios.

6.2 Delete Class removes a class from the list. You will be asked to enter the number of the class from the SHIP LIST display.

6.3 Change Limit allows you to change the number of ships associated with that class. For example, the British battleship HOOD class had only one ship - using CHANGE LIMIT, you could increase that number to whatever you desired.

6.4 Re List refers to the SHIP LISTING screen.

6.5 Next Type moves you to the next type of ship. If you were working on British battleships, the next type would be cruisers, followed by destroyers.

6.6 Next Nation sequences to the next nationality.

6.7 Save shifts you to the SAVE FILE routine. You will be asked to specify the letter identifying this file, and a comment. The comment allows you to input an identification of the file, in case you forget the file contents! The comment is displayed in the DDF-GEN33 and GEN33 programs after you load the file, with an option to back up and load a different file.

6.8 Abort terminates the program. No files are changed or saved.

6.9 Summary shifts you to a summary display. It shows you how many classes of each type are included in the fleet, and the total number of ships of each type. From this display you have the option to go to the save routine, or to go back and make further modifications to your fleets.

S - 2 SCENARIOS

BLUE force is US/Allies RED force is Japanese
SURIGAO STRAIT (Night, BB v. BB, coastal) (SURIGAO . SCN)

In the classic battleship - vs. - battleship night action, the US battleship of ships salvaged from the Pearl Harbour disaster attempts to block the efforts of the Japanese Southern Force and Fifth Fleet. The initial positions of the Japanese ships have been adjusted to help with play balance. We have included this scenario for historical completeness - we have yet to be able to take the Japanese and beat the computer.

COMPUTER: BLUE
RED THREAT AXIS: 000 BLUE THREAT AXIS: 180
RED OBJECTIVE: GET THROUGH THE STRAIT
BLUE OBJECTIVE: ENEMY FORCE DESTRUCTION

JAVA SEA (MODIFIED)
(Evening, CA v. CA + Convoy, coastal) (JAVA - MOD . SCN)

Just before the battle the US cruiser Houston suffered a bomb hit which destroyed one - third of her main battery, and the light modern cruiser Boise hit a reef and was pulled back to Pearl Harbour for repairs. The scenario explores

"what if" these two events had not occurred, and it starts the Allied forces with a better tactical disposition.

COMPUTER: RED
RED THREAT AXIS: 180 BLUE THREAT AXIS: 000
RED OBJECTIVE: ENEMY FORCE DESTRUCTION
BLUE OBJECTIVE: CONVOY DESTRUCTION

SAMAR (Day, BB v. BB + Convoy) (SAMAR (H) . SCN)

A hypothetical scenario, where Halsey detaches his battleships from chasing the Japanese carrier forces to block the Japanese 2nd Fleet from attacking the American amphibious landings. A delightfully balanced scenario - try it from either side.

COMPUTER: EITHER
RED THREAT AXIS: 180 BLUE THREAT AXIS: 000
RED OBJECTIVE: CONVOY DESTRUCTION
BLUE OBJECTIVE: CONVOY PROTECTION

SAMAR II (Day, BB v. BB) (SAMAR - II . SCN)

After the old US battleships won at Surigao Strait, what if they were ordered to intercept the Japanese 2nd Fleet? Another hypothetical scenario. The US ships are low on ammunition after their previous engagement.

COMPUTER: EITHER
RED THREAT AXIS: 270 BLUE THREAT AXIS: 090
RED OBJECTIVE: ENEMY FORCE DESTRUCTION
BLUE OBJECTIVE: CONVOY PROTECTION

THE BATTLE OF CAPE ST. GEORGE (Night, DD v. DD) (STGEORGE . SCN)

In this recreation of the actual battle, a US force of destroyers (historically commanded by "31 - Knot Burke") attempts to intercept a resupply force of Japanese destroyers engaged in a "Tokyo Express" run. The Naval War College described Burke's engagement as "a nearly - perfect battle".

COMPUTER: EITHER
RED THREAT AXIS: 180 BLUE THREAT AXIS: 000
RED OBJECTIVE: PENETRATE TO THE SOUTH, DROP SUPPLIES, RETURN
BLUE OBJECTIVE: ENEMY FORCE DESTRUCTION

ABDA STRIKES GOLD? (ABDAHYP0 . SCN)

In the early days of WW II in the Pacific, the Allied force of America, British, and Netherlands warships several times intercepted or attempted to intercept Japanese convoys and invasion forces. This hypothetical scenario postulates a good part of the ABDA fleet bouncing a Japanese amphibious landing.

COMPUTER: EITHER

RED THREAT AXIS: ALL AROUND BLUE THREAT AXIS: AHEAD

RED OBJECTIVE: CONVOY SURVIVAL

BLUE OBJECTIVE: CONVOY DESTRUCTION

GREAT PACIFIC WAR

1932 - PAC . SCN

A hypothetical war between Japan and the US in 1932, assuming that the Washington Treaty was never signed. Lots of "what if" and surprises on both sides, designated to add to the flavour of uncertainty and "fog of war".

COMPUTER: EITHER

RED THREAT AXIS: 090

BLUE THREAT AXIS: 270

RED OBJECTIVE: ENEMY FORCE DESTRUCTION

BLUE OBJECTIVE: ENEMY FORCE DESTRUCTION

BLUE force is German

RED force is British/French/Russian

NORTH SEA, 1945 (Day, BB V. BB) (NSEA1945 . SCN)

Another hypothetical scenario, this time between the British and the Germans. What if war did not break out until 1945, allowing the German navy to complete a large part of its planned construction program? In this scenario, the Germans are attempting to break out of the North Sea to get to the North Atlantic convoy routes, with the British attempting to intercept them.

COMPUTER: BLUE

RED THREAT AXIS: UNKNOWN BLUE THREAT AXIS: UNKNOWN

RED OBJECTIVE: ENEMY FORCE DESTRUCTION

BLUE OBJECTIVE: ENEMY FORCE DESTRUCTION

MERS - EL - KABIR (Day, BB v. BB, Coastal) (KABIR . SCN)

After the capitulation of France in 1940, the British attempted to prevent the French Navy from being turned over intact to the Germans by bombarding it in the North African port of Mers - el - Kabir. In this scenario, the harbour is more open to the sea than the actual anchorage, allowing the French ships a better chance to get underway and engage the British force.

COMPUTER: EITHER

RED THREAT AXIS: 180

BLUE THREAT AXIS: 000

RED OBJECTIVE: ENEMY FORCE DESTRUCTION

BLUE OBJECTIVE: SURVIVAL

NORTH ATLANTIC SWEEP (Day, BB V. BB) (SWEEP . SCN)

In the early months of WW II, German capital ships made several sorties into the Atlantic, engaging in merchant shipping raids. British and French battlecruisers were dispatched to attempt to intercept them and bring them to battle. In this scenario, the Allies are dispatched to a mid - ocean rendezvous, with the mission to join up and then conduct a sweep to locate and destroy a German raider force of unknown composition.

COMPUTER: BLUE

RED THREAT AXIS: UNKNOWN BLUE THREAT AXIS: UNKNOWN

RED OBJECTIVE: ENEMY FORCE DESTRUCTION

BLUE OBJECTIVE: ENEMY FORCE DESTRUCTION WITH MINIMAL LOSSES

BLACK SEA INVASION (BB v. BB + Convoy) (BLACKSEA . SCN)

Another hypothetical situation. In this case we assume the WW II did not occur - instead, the Germans decided to invade Russia in 1945. In this scenario a German invasion force is being escorted for an amphibious attack against Sevastopol in 1944. The Russian Black Sea Fleet has been dispatched to intercept them.

COMPUTER: RED

RED THREAT AXIS: UNKNOWN

BLUE THREAT AXIS: 000

RED OBJECTIVE: CONVOY DESTRUCTION

BLUE OBJECTIVE: CONVOY SURVIVAL

THE BAY OF BISCAY (CL v. DD, weather) (BISCAY . SCN)

Biscay recreates an action in the Bay of Biscay in December 1943. In low - visibility and poor weather conditions the Germans lost several ships, while the British suffered no appreciable damage.

COMPUTER : RED

RED THREAT AXIS: ALL AROUND

BLUE THREAT AXIS: ALL AROUND

RED OBJECTIVE: ENEMY FORCE DESTRUCTION

BLUE OBJECTIVE: ENEMY FORCE DESTRUCTION

OPERATION DOMINO (BB V. BB) (OPDOMINO . SCN)

OPDOMINO is a recreation of the German attempt to run SCHARNHORST and GNEISENAU up to Norway in January 1943. The British are at sea, with the mission to locate and destroy the German force. The Germans would primarily just like to survive, but will not mind picking off any stray British warships! This scenario was used at a convention several years ago and was popular with the players.

COMPUTER: RED

BLUE THREAT AXIS: ALL AROUND

RED THREAT AXIS: ALL AROUND

RED OBJECTIVE: ENEMY FORCE DESTRUCTION

BLUE OBJECTIVE: TRANSIT TO THE NORTH WITHOUT LOSSES

5 - 3 SHIP CLASSES

The following additional ship classes were included in the SSU #1 disk.

UNITED STATES - BATTLESHIPS

N - 2 CLASS BATTLESHIP FILE: n. SHIP

25 Krons, 975 FL X 108 FL, 2 AC, 77 Pm, 8 Dr
 ARMAMENT: MAIN: 5/15 - 18 INSEC: 20 - 6 WTER: 6 - 3 W/
 0 - 0 Torped/AMMO: MAIN: F 600 A 600 M O /SB 1200
 ARMOR (X10) Bat: = 150, Deck = 75, BB = 150, CT = 160 In = 25
 Tur 210 - 70, Mag = 185 - 75, Str = 140 - 50, SB = 10

MISSIPPI CLASS BATTLESHIP FILE: m. SHIP

21 Krons, 600 FL X 106 FL, 4 AC, 52 Pm, 8 Dr
 ARMAMENT: MAIN: 4/12 - 14 INSEC: 14 - 5 WTER: 56 - 8 W/
 // AMMO: MAIN: F 600 A 600 M O /SB 3000 /TB 3600
 ARMOR (X10) Bat: = 140, Deck = 60, BB = 140, CT = 160 In = 16
 Tur 180 - 50, Mag = 140 - 60, Str = 140 - 60, SB = 0

MOOREHEAD CLASS BATTLESHIP FILE: h. SHIP

21 Krons, 600 FL X 106 FL, 4 AC, 52 Pm, 8 Dr
 ARMAMENT: MAIN: 4/12 - 14 INSEC: 16 - 5 WTER: 40 - 8 W/
 // AMMO: MAIN: F 600 A 600 M O /SB 3000 /TB 1000
 ARMOR (X10) Bat: = 140, Deck = 50, BB = 140, CT = 160 In = 16
 Tur 180 - 50, Mag = 140 - 60, Str = 140 - 50, SB = 25
 TENNESSEE CLASS BATTLESHIP FILE: t. SHIP
 21 Krons, 600 FL X 106 FL, 4 AC, 52 Pm, 8 Dr
 ARMAMENT: MAIN: 3/9 - 8 INSEC: 12 - 5 WTER: 6 - 5 W/
 // AMMO: MAIN: F 600 A 600 M O /SB 3000 /TB 3600
 ARMOR (X10) Bat: = 140, Deck = 60, BB = 140, CT = 160 In = 16
 Tur 180 - 50, Mag = 140 - 60, Str = 140 - 60, SB = 5

UNITED STATES - CRUISERS

BALTIMORE CLASS CRUISER FILE: b. SHIP

32 Krons, 664 FL X 71 FL, 2 AC, 29 Pm, 8 Dr
 ARMAMENT: MAIN: 3/9 - 8 INSEC: 12 - 5 WTER: 20 - 3 W/
 // AMMO: MAIN: F 900 A 450 M O /SB 4000 /TB 4000
 ARMOR (X10) Bat: = 60, Deck = 25, BB = 63, CT = 60 In = 15
 Tur 80 - 30, Mag = 75 - 25, Str = 30 - 20, SB = 20

DESMOND CLASS CRUISER FILE: d. SHIP

32 Krons, 700 FL X 78 FL, 0 AC, 34.25 Pm, 8 Dr
 ARMAMENT: MAIN: 3/9 - 8 INSEC: 12 - 5 WTER: 20 - 3 W/
 // AMMO: MAIN: F 900 A 450 M O /SB 4000 /TB 4000
 ARMOR (X10) Bat: = 60, Deck = 45, BB = 63, CT = 65 In = 15
 Tur 80 - 40, Mag = 75 - 25, Str = 30 - 20, SB = 20

WICHITA CLASS CRUISER FILE: w. SHIP

32 Krons, 600 FL X 82 FL, 4 AC, 25.9 Pm, 8 Dr
 ARMAMENT: MAIN: 3/9 - 8 INSEC: 8 - 5 W/
 // AMMO: MAIN: F 900 A 450 M O /SB 1900
 ARMOR (X10) Bat: = 64, Deck = 23, BB = 70, CT = 60 In = 6
 Tur 80 - 28, Mag = 70 - 20, Str = 50 - 20, SB = 5

UNITED STATES - DESTROYERS

SUMNER CLASS DESTROYER FILE: s. SHIP

32 Krons, 360 FL X 41 FL, 0 AC, 6.42 Pm, 2 Dr
 ARMAMENT: MAIN: 3/6 - 5 INSEC: 16 - 8 W/
 10 - 0 Torped/AMMO: MAIN: F 1200 A 600 M O /SB 3000
 ARMOR (X10) Bat: = 0, Deck = 0, BB = 0, CT = 0 In = 0
 Tur 5 - 5, Mag = 0 - 5, Str = 0 - 0, SB = 0

JAPAN - BATTLESHIPS

OWARI CLASS BATTLESHIP FILE: o. SHIP

20 Krons, 820 FL X 101 FL, 2 AC, 60.75 Pm, 8 Dr
 ARMAMENT: MAIN: 5/10 - 16 INSEC: 16 - 5.5 WTER: 4 - 5 W/
 0 - 0 Torped/AMMO: MAIN: F 400 A 600 M O /SB 6000 /TB 1200
 ARMOR (X10) Bat: = 115, Deck = 40, BB = 110, CT = 140 In = 30
 Tur 110 - 70, Mag = 115 - 40, Str = 90 - 40, SB = 10

B - 66 CLASS BATTLESHIP FILE: b. SHIP

33 Krons, 796 FL X 98 FL, 3 AC, 50.1 Pm, 6 Dr
 ARMAMENT: MAIN: 3/8 - 14 INSEC: 16 - 3.9 WTER: 9 - 8 W/
 0 - 0 Torped/AMMO: MAIN: F 600 A 300 M O /SB 3600
 ARMOR (X10) Bat: = 106, Deck = 50, BB = 106, CT = 100 In = 0
 Tur 100 - 50, Mag = 105 - 50, Str = 50 - 30, SB = 5

YAMATO CLASS BATTLESHIP FILE: y. SHIP

27 Krons, 840 FL X 128 FL, 6 AC, 74 Pm, 8 Dr
 ARMAMENT: MAIN: 3/8 - 20 INSEC: 6 - 6 WTER: 24 - 5 W/
 // AMMO: MAIN: F 500 A 250 M O /SB 1600 /TB 1200
 ARMOR (X10) Bat: = 207, Deck = 70, BB = 226, CT = 112 In = 0
 Tur 260 - 100, Mag = 194 - 70, Str = 142 - 78, SB = 10

JAPAN - CRUISERS

FURUKA - O CLASS CRUISER FILE: f. SHIP

(note - original "was launched", before modification)
 33 Krons, 568 FL X 92 FL, 2 AC, 16.15 Pm, 4 Dr
 ARMAMENT: MAIN: 6/6 - 8 INSEC: 4 - 3 W/
 12 - 0 Torped/AMMO: MAIN: F 450 A 450 M O /SB 800

ARMOR (X10) Bat: = 30, Deck = 15, BB = 0, CT = 10 In = 0

Tur 5 - 5, Mag = 30 - 15, Str = 0 - 0, SB = 0

NACHI - O CLASS CRUISER FILE: n. SHIP

(note - original "was launched", before modification)
 35 Krons, 661 FL X 97 FL, 2 AC, 23.59 Pm, 4 Dr
 ARMAMENT: MAIN: 5/10 - 8 INSEC: 8 - 4.7 W/
 12 - 0 Torped/AMMO: MAIN: F 900 A 600 M O /SB 2400
 ARMOR (X10) Bat: = 45, Deck = 25, BB = 15, CT = 15 In = 0
 Tur 15 - 10, Mag = 45 - 50, Str = 25 - 25, SB = 7

MOGAMI CLASS CRUISER FILE: m. SHIP

(note - 1944, modified with flight deck aft)
 35 Krons, 661 FL X 98 FL, 11 AC, 24.4 Pm, 4 Dr
 ARMAMENT: MAIN: 3/6 - 8 INSEC: 8 - 5 WTER: 12 - 8 W/
 12 - 12 Torped/AMMO: MAIN: F 900 A 0 M O /SB 2400 /TB 1000
 ARMOR (X10) Bat: = 45, Deck = 15, BB = 10, CT = 15 In = 0
 Tur 10 - 10, Mag = 50 - 50, Str = 20 - 15, SB = 7

JAPAN - DESTROYERS

FUBUKI - O CLASS DESTROYER FILE: f. SHIP

(note - original "was launched", before modification)
 38 Krons, 378 FL X 34 FL, 0 AC, 4.08 Pm, 1 Dr
 ARMAMENT: MAIN: 3/6 - 5 INSEC: 2 - 8 W/
 9 - 0 Torped/AMMO: MAIN: F 600 A 1200 M O /SB 200

ARMOR (X10) Bat: = 0, Deck = 0, BB = 0, CT = 0 In = 0
 Tur 6 - 4, Mag = 0 - 0, Str = 0 - 0, SB = 10

GREAT BRITAIN - BATTLESHIPS, BATTLECRUISERS, BB ARMED CRUISERS

LION CLASS BATTLESHIP FILE: l. SHIP

30 Krons, 740 FL X 104 FL, 2 AC, 55.58 Pm, 8 Dr
 ARMAMENT: MAIN: 3/8 - 16 INSEC: 16 - 5.2 WTER: 0 - 8 W/
 // AMMO: MAIN: F 600 A 300 M O /SB 6400

ARMOR (X10) Bat: = 150, Deck = 45, BB = 150, CT = 45 In = 0
 Tur 150 - 60, Mag = 150 - 45, Str = 45 - 45, SB = 20

VANGUARD CLASS BATTLESHIP FILE: v. SHIP

30 Krons, 814 FL X 108 FL, 0 AC, 60.75 Pm, 8 Dr
 ARMAMENT: MAIN: 4/6 - 15 INSEC: 16 - 3.2 WTER: 0 - 8 W/
 // AMMO: MAIN: F 400 A 600 M O /SB 6400
 ARMOR (X10) Bat: = 130, Deck = 50, BB = 130, CT = 30 In = 15
 Tur 150 - 60, Mag = 140 - 60, Str = 110 - 25, SB = 25

INCORPUS CLASS BATTLESHIP FILE: i. SHIP

35 Krons, 840 FL X 90 FL, 0 AC, 61.11 Pm, 8 Dr
 ARMAMENT: MAIN: 3/8 - 16 INSEC: 16 - 4 WTER: 4 - 4 W/
 0 - 16 Torped/AMMO: MAIN: F 300 A 160 M O /SB 3000 /TB 1200
 ARMOR (X10) Bat: = 110, Deck = 40, BB = 140, CT = 100 In = 16
 Tur 140 - 50, Mag = 110 - 40, Str = 10 - 5, SB = 0

REHOWA CLASS BATTLESHIP FILE: r. SHIP

28 Krons, 794 FL X 90 FL, 4 AC, 44.5 Pm, 8 Dr
 ARMAMENT: MAIN: 3/8 - 15 INSEC: 20 - 4 W/
 0 - 12 Torped/AMMO: MAIN: F 500 A 250 M O /SB 1000
 ARMOR (X10) Bat: = 0, Deck = 20, BB = 70, CT = 100 In = 115
 Tur 110 - 41, Mag = 115 - 90, Str = 30 - 30, SB = 10

BO - 1921 CLASS BATTLESHIP FILE: b. SHIP

(1921 design for Battleship, cancelled by Washington Treaty)
 31 Krons, 840 FL X 108 FL, 2 AC, 61.5 Pm, 8 Dr
 ARMAMENT: MAIN: 3/9 - 16 INSEC: 16 - 6 WTER: 6 - 4.7 W/
 2 - 12 Torped/AMMO: MAIN: F 600 A 1 M 300 /SB 3000 /TB 1200
 ARMOR (X10) Bat: = 142, Deck = 40, BB = 142, CT = 120 In = 0
 Tur 170 - 80, Mag = 141 - 90, Str = 10 - 50, SB = 10

STANDREW CLASS BATTLESHIP FILE: s. SHIP

28 Krons, 900 FL X 108 FL, 2 AC, 62.5 Pm, 8 Dr
 ARMAMENT: MAIN: 3/9 - 16 INSEC: 16 - 6 WTER: 6 - 4.7 W/
 2 - 12 Torped/AMMO: MAIN: F 600 A 1 M 300 /SB 3000 /TB 1200
 ARMOR (X10) Bat: = 142, Deck = 40, BB = 142, CT = 120 In = 0
 Tur 170 - 80, Mag = 141 - 90, Str = 10 - 50, SB = 10

COURAGEOUS CLASS BATTLESHIP FILE: c. SHIP

(Courageous Battleship armament with cruiser protection)
 31 Krons, 744 FL X 85 FL, 0 AC, 54.01 Pm, 4 Dr
 ARMAMENT: MAIN: 2/4 - 15 INSEC: 21 - 4 WTER: 2 - 3 W/
 0 - 12 Torped/AMMO: MAIN: F 160 A 160 M O /SB 1650 /TB 1200
 ARMOR (X10) Bat: = 30, Deck = 10, BB = 70, CT = 100 In = 16
 Tur 90 - 50, Mag = 30 - 10, Str = 10 - 5, SB = 0

FURIOUS CLASS BATTLESHIP FILE: f. SHIP

(Battleship armament with cruiser protection)
 31 Krons, 744 FL X 85 FL, 0 AC, 54.01 Pm, 4 Dr
 ARMAMENT: MAIN: 2/2 - 18 INSEC: 12 - 5.5 WTER: 0 - 3 W/
 0 - 12 Torped/AMMO: MAIN: F 104 A 102 M O /SB 1650 /TB 1200
 ARMOR (X10) Bat: = 30, Deck = 10, BB = 70, CT = 100 In = 16
 Tur 90 - 50, Mag = 30 - 10, Str = 10 - 5, SB = 0

GREAT BRITAIN - CRUISERS

SUPPLY CLASS CRUISER FILE: s. SHIP

30 Krons, 600 FL X 64 FL, 1 AC, 25.7 Pm, 4 Dr
 ARMAMENT: MAIN: 4/6 - 8 INSEC: 8 - 4 W/
 0 - 0 Torped/AMMO: MAIN: F 500 A 500 M O /SB 1600
 ARMOR (X10) Bat: = 55, Deck = 13, BB = 10, CT = 10 In = 0
 Tur 10 - 10, Mag = 56 - 50, Str = 15 - 15, SB = 0

DIDO - MOD CLASS CRUISER FILE: d. SHIP

33 Krons, 512 FL X 51, 0 AC, 10.9 Pm, 2 Dr