2.3.1 GAMESTYLE OPTIONS:

There are many threads on House Rules for PBEM.

http://www.matrixgames.com/forums/tm.asp?m=2609058
http://www.matrixgames.com/forums/tm.asp?m=2631520

Here are some basic ones that can be used as a rough guide for those looking to start a PBEM and are not sure on what (if any) rules to implement.

Item #1 is about only one with overwhelming consensus on, the rest are open to wide and varying views.
Comments on the rules are in *italics*

1. POLITICAL POINTS

Units with permanently restricted HQ's must not cross national Borders.

Units with temporarily restricted HQ's must pay full PP to transfer to non-restricted HQs before moving across national Border.

No switching land unit HQ to unrestricted air HQs etc.or any other gamey variation to do this cheaply

National Borders never implemented and Various fixes to correct issues with the PP systems shortcomings.
Note: This could prevent the Japanese Attacking / Invading Russia

2. STRATEGIC BOMBING

No strategic bombing in or out of China until: Anywhere from 4/43 to start of 1944
No Chinese City bombing until 1944.
No bombing of Chinese Industry.

This rule seems to get a fair bit of support also to stop the unbalancing of China Theatre

3. 4 ENGINE BOMBERS
No 4 E naval bombing below 10,000ft.

This rule pops up a lot but its necessity seems to be mitigated by the fact that you need high pilot skills to be anywhere near effective, which take time.

4. INVASIONS / LAND COMBAT

No sub invasions.

Limited sub transport capability etc. probably makes this rule un-necessary.

Only allow landings/invasions at dots hexes or bases.

This one crops up a bit also, general consensus seems to be that the penalties for invading non-base hex are pretty steep so good luck if you do!

5.AIR COMBAT

Maximum mission altitude for fighters restricted to band with maximum maneuverability.

Helps with constant 'Dive' advantage when using max altitude for aircraft.

6.GAMEY

Probably should be higher up the list but, if a tactic seems gamey it probably is gamey!

6.1.3 SHIP INFORMATION SCREEN:

http://www.matrixgames.com/forums/tm.asp?m=2267944

The range values for some ship's guns have a "*" next to the value.
The range given is for surface engagement.
The * indicates it is AA capable (i.e. is Dual Purpose), but it's range is defined by device in the editor

6.2.12 – SUBMARINES:

http://www.matrixgames.com/forums/tm.asp?m=2420375

There are two separate damage checks for Sub Patrol TFs. Basically, a sub on patrol will stay out until it has significant damage levels while a sub that is at it's home port will not go out again if it has more than minor damage.

1. A TF on patrol will terminate patrol and return to port when any damage category reaches 25.

2. A TF that has returned to port for fuel will terminate patrol if system damage is 10 or there is engine or float damage. These TFs will disband for repairs.

If a player sees a TF disband and then sees damage levels less than 10, it may be that some considerable amount of sys damage was repaired after disbanding. This would especially be true for a TF that disbanded in the first phase of a turn, and into a major port.

http://www.matrixgames.com/forums/tm.asp?m=2337113

Subs in AE will never react into a DETECTED mine field. They will react into an undetected minefield 'cause they don't know it's there

Subs will also not react into larger ports. Don't recall the size but it's fairly small - four maybe

If they return to home port after reacting, you are probably using Remain on Station instead of Patrol Zones. You should not do this .

In AE the two functions are separate:
Remain on Station should only be used to keep a TF somewhere - and react range should be set to zero. Patrol zones should be used for patrol, along with react.
This will allow the TF to react and then return to patrol.

6.2.13 – SHIP ENDURANCE:

http://www.matrixgames.com/forums/tm.asp?m=2411535

Off map TFs are assumed to be able to use off map refuelling resources. There is some consumption for ships moving to/from the map edge and then directly to off map bases.

6.2.13.1 - CV REFUEL:

Sometimes it takes 2 days to replenish CVs. They refuel first, then restock sorties second. If the ship was low on fuel and low on sorties, it will probably take 2 days.

An oiler using "replenish at sea" when refuelling at a port and in the presence of one or more loaded tankers will take fuel from the TK to replenish themselves. This was common practice - to transfer fuel directly from tankers to oilers capable of underway replenishment at a base

6.2.7.3 – SET PATROL ZONE:

The latest patch introduced an option to show patrol zones for multiple TFs at the same time (item 75). The documentation for this enhancement did not get into the release. Also note that this feature, like the Next/Previous TF feature, interacts with the display settings on the TF list screen (Hot Key 't').

I believe this is a full description of the features and their interactions.

TF List (Hot Key 't') will show active TFs, with an ability to narrow the list. Players can order display of all TFs or narrow the display to show one/some of Air Combat, Surface, Sub Ops, Transport, etc. TFs. Whatever selection is made on this screen is remembered and used as a filter for two other functions (below).

The existing Next/Previous TF functions will step through on-map TFs, displaying them in sequence. Only those TFs that match the selection criteria selected (above) will be displayed. For example, if the player has selected to display only Sub Ops TFs on the TF list screen, the Next/Previous TF keys will step through the Sub Ops TFs on the board. Also note that there are two variations of Next/Previous. Use of shifted '<' and '>' will move to the next/previous TF and display the TF screen for that TF. Use of the same keys un-shifted (actually ',' and '.') will move to the TF but not display the TF screen.

The new Show All Patrol Zones function (Hot Key '6') will show all patrol zones for TFs that match the previously specified selection criteria. In the Sub Ops TF example, only patrol zones for sub TFs will be displayed. Note that patrol zones for all selected TFs will be displayed and the display only shows that actual patrol zone (not the approach path from the TF's currently location to the patrol zone). If the patrol zones overlap the display can become confusing.

Neither Next/Previous nor Show All Patrol Zones will display off-map or delayed arrival TFs

6.3 – TASK FORCE LOADING/UNLOADING:

Unloading Order:
Troops and light equipment
Supplies
Heavy equipment
Other stuff (oil. etc).

In a TF with lots of supplies the heavy equipment will get unloaded after all the supplies. To get Heavy equipment unloaded create a new TF containing all the craft with supplies and then order that TF to not unload. This would allow the heavy equipment to move to the top of the queue.

Other Unload Issues:

1. Port Damage. There are only 10 port sizes in AE . No fractional or partial ports. Port damage is a percentage of damage to the total port. Given this, and normal "truncation" math, a single point of damage will drop a port by one size. I.E. a level 5 port that is 2% damaged calculates to a 4.9 port - but there is no such thing so it becomes level 4.

2. Capacity limits. Ports have cargo capacity handling limits based on their damage-adjusted port size. Port damage is obviously damaged cranes, access roads, handling gear, etc.

3. Docking Limits. Ports have docking limits, expressed in ship tonnage, based on their undamaged port size. Ships can still tie up to damaged piers and quays, even if cargo handling over that pier/quay is reduced due to damage.

4. Auto Docking. TFs about to load or unload will automatically use any available docking capacity of the port. If the entire TF can dock, it will. If not, some portion of the TF can maneuver to/near the piers for unloading. Normally a very good thing.

5. Amphib Bonus. Amphibious TFs that are loading/unloading at smaller friendly ports and are not fully docked will get an amphibious bonus.

Implications for a damaged Lvl 1 Port:
Thus: the ports are level one so even one damage point will cut their cargo handling capacity to that of a level zero port. But they can still dock up to 6000 tons of shipping. The LCT TFs are small, so they can dock. The auto docking feature will dock them, so they do not get the amphib bonus. But they will (slowly) unload.

6.3.3.3.2 – AMPHIBIOUS UNLOADING:

http://www.matrixgames.com/forums/tm.asp?m=2629075

Contested Amphibious Landings
While subsequent landings occur, a check is made to determine if the invading units should withdraw if not building up fast enough.

For Japan:
if invader's attack strength landed in hex*10 < defender's strength plus a check based on landing TF leader's land+aggression+skill, then re-embarks landing force

For Allies:
if invader's attack strength landed in hex*5 < defender's strength plus a check based on landing TF leader's land+aggression+skill, then re-embarks landing force.

Port 0(0) ,you will need at least 30 Naval support to be able to reload any device > 5.
i.e. engineering vehicles. larger weapons etc.

This also applies to some extent to Transport TF to size 1 ports.
i.e. you need some Naval support to be able to unload / load the larger devices.
Without the Naval support your unload info will go orange indicating that a device is too big to unload at this size port.

http://www.matrixgames.com/forums/tm.asp?m=2264853

The TF leader land combat rating has an effect on the success of an Invasion.
There is also a check of Combat strength of landing force vs known enemy strength to avoid re-embarking.

6.4.3 SHIP TO SHORE BOMBARDMENT:

http://www.matrixgames.com/forums/tm.asp?m=2529607

Dedicated Bombardement Mission –TF arrives and bombards, and then reverts to a Surface mission.

A BB in an invasion force - fires at enemy defences initially, and then at the enemy defences whenever they fire at the invading forces. They are also useful for soaking up some of the attacker's firepower.

http://www.matrixgames.com/forums/tm.asp?m=2523358

Minimum Bombardment range:
All naval, DP and AAA guns are valid for use by ships in a Bombardment TF against the shore.
Several times this leads to these TFs becoming fairly toothless against attacking planes as the AAA levels are low, being used up against shore targets.

This has no bearing on Escort ships if the "Escort don't bombard" option is set.

Not setting a range (ie leaving it as 0), makes the naval bombardment behave as it always has. The ships will close with the shore in an attempt to fire all available naval, DP and AAA guns. As the AAA have the shorter range, this is usually the limiting factor.
Say the AAA has a range of 4K yards (range of 4 in game terms), the ship will need to close to a range of 4 of the shore in order to fire these guns. And the ship will be in range of any land guns of range 4+.

Setting the minimum range to say 6 (6k yards), then the ships will be out of range for the AAA to fire. But they might be able to fire all the other naval and DP guns, assuming their range is 6+.

This leaves the AAA for any possible air action and could keep a less heavily armoured ship out of harm's way for awhile.
I have tried to minimize the amount of ammo used by AAA in these attacks, but the button allows a further control on AAA usage.

Note that for an Amphibious TF or any transport TF landing forces, the ships will close with the shore as required as are not constrained by the Min Bombardment Range.

http://www.matrixgames.com/forums/tm.asp?m=2551570

There is a possibility when bombarding bases that shots may miss the target and hit the City portion of the base. This was done to offset the tendency for base bombardments (where LCUs were not targeted) to hit the Port (and the ships therein) especially where there were a number of them.

When the City is targeted, there could be some damage done to a random slot (industry) at the base. The more devices in the base itself, the higher the chance of something being hit.

If you were seeing FIRES, then this most likely meant that Manpower device at the base was hit.

6.4.4 SUBMARINES - MIDGET SUBS:

http://www.matrixgames.com/forums/tm.asp?m=2253123

Only the type C1 boats, I-16, -18, -20, -22 and -24. can carry midget subs.
One loaded the midget does not use fuel during the trip to the target (it's being carried).
The carrier sub can not refuel the midget so you should be sure to fully fuel it before leaving.
Reloaded, means "loaded back on board the big sub", not "be rearmed and refuelled".

6.5.1 OPERATIONAL DAMAGE:

Ships moving in a cold zone are twice as likely to be damaged.
The speed setting (cruise, mission, full) increases the chances of damage at full speed and decreases it at cruise speed. Mission speed is somewhere in between.

There is an adjustor based on type of ship.
A battleship at sea is less likely to be damaged than a PT, for instance.

6.6 MINE WAREFARE:

ACM's maintain minefields. They do not need any new mines from the pool.
In order for ACM to work:

1. The port must have fuel. ACM consume fuel in routine mine maintenance and stop maintaining when there is no fuel.
2. The ACM must be in good shape. If their damage gets above 10% or so, they stand down for maintenance.

7.0 - AIR UNITS - AIRCRAFT REPAIR ON CARRIERS:

Repair facilities (chance to repair) on a carrier are based on the ship's SYS damage; SYS = 0 means full a/c facilities, SYS = 20 means 80% facilities.

Carrier a/c repair does not require supply.
There is no a/c repair once SYS exceeds 60.
There is no special "in port" a/c repair bonus. Same repair conditions for at sea and in port.
Standing down the group will also increases repair chance.

7.1 PILOT EXPERIENCE:

Orange means that that experience increased in the last month. Green means the last day.

Pilots can lose an EXP point if their plane is damage or lost due to an operational loss.

Skills are what counts for most individual actions, including training.

Experience, in general, counts in non-combat areas.

If you leave a VMF/VMB on a CV for 90 days it becomes CV capable

7.1 ASW:

Until your pilots get to the 70+ exp, you won't attack consistently.

To kill subs near your ports:

ASW Mission
100 feet (or 1000 if the plane will not go to 100)
Max Range
Use bombs not torps, if that is an option.

To see subs as far out as possible:

Naval Search Mission
6000 feet
Max Range
Use Bombs not torps, if that is an option.

Naval search...
High altitude will spot large TF's.
Lower altitudes spot smaller TF's.

Q:The Manual says the actual ASW range is half of the normal range. if the ASW range is 5, What's the actual range? 3 or 2?

A: A general rule of thumb is that if anything is divided, the fraction is usually thrown away, so if you have a range of 5, 1/2 would usually be 2.

7.2 AIRCRAFT MISSIONS:

http://www.matrixgames.com/forums/tm.asp?m=2347631

Mission: Bombing
A/C type: DB

- Group altitude: <1K - low level attack
- Group altitude: 1-9K - normal horizontal attack
- Group altitude: 10-15K -diving attack
- Group altitude: 16-19K - glide attack
- Group altitude: 20+ normal horizontal attack
The attacks are based on altitude flown.

Diving attacks have a better chance than gliding attacks to make a hit; pilots with good NAVAL_BOMB skills have a better chance. Exit altitude is 1000-4000'.
Glide attacks have a better chance than level bombing but not as good as diving attacks to make a hit, but; again better skilled pilots have a better chance. Exit altitude is 2000-5000'.

http://www.matrixgames.com/forums/tm.asp?m=2537158

LRCAP Over Enemy Base
Placing a CAP over an enemy base will increase the chance of Operational losses against returning planes to that base. This represents the possibility of CAP intervention on launching or landing of enemy planes.

The increase is not huge and does not depend on the size of the CAP but size of the returning flight, but if you have plenty of fighters, it might be useful to keep a group on CAP over an enemy base to interdict operations.
I added this to AE in the initial stages after reading about the US carrier operations during the later stage of the war where the carriers kept morning and evening CAP over some of the Japanese island bases.

7.2.1.7 AIR UNIT TARGETS:

http://www.matrixgames.com/forums/tm.asp?m=2619561

The amount of supply destroyed is a random amount based on the device's effect and anti-soft ratings. This could be anything from 1 to the device effect*anti-soft/100.

7.2.1.10 IMPACT OF ORDANCE ON AIR MISSIONS:

http://www.matrixgames.com/forums/tm.asp?m=2582278

Bomb Loadout
Replacement load for torpedo is usually:
Allied - 1 or 2 x 500lb bombs
Japanese - 1 x 800kg,
or 1 or 2 x 250kg for non-LBA
or 1 or 2 x 250kg and 2 or 4 x 60kg for LBA

The settings are for normal range and over normal respectively.

http://www.matrixgames.com/forums/tm.asp?m=2466161

A Land Based Aircraft which is not classed as an attack-bomber and flies a low level mission will fly with half the usual bomb load.

This was to help stop every LBA from becoming a low-level ship killer.
Only the LBAs classed as attack-bombers get to fly with the 'full' load appropriate to the range.

Allied attack bombers:

A-20G, A-20A1, A-26B

B-25D1, B-25G, B-25H, B-25J11

PBJ-1H

http://www.matrixgames.com/forums/tm.asp?m=2556647

Attack Bombers
- Set Altitude <6,000 (low Level)
- Altitude >6,000 Treated as Normal LB
- Altitude <6,000 increased accuracy vs TF
- Altitude <6,000 & Ground / Naval Attack will Increase Strafe Skill
- No Way to Train Strafe Skill
- Naval Targets - Will attack in Pairs
- Ground Targets – Will attack in two pairs
- Will Bomb Target at 100' then Strafe at 100'
- Strafing Will Suppress Flak, Strafe Skill >70 will increase suppression

Non-Attack Bombers
- Altitude <1,000 gain higher Fatigue from Flak
- Altitude <6,000 reduced accuracy if low morale / high fatigue
- Altitude <7,000 reduced accuracy vs TF

- No Min Exp / Skill to execute Low Level type attack.

7.2.2 AIR GROUP WITHDRAWAL:

http://www.matrixgames.com/forums/tm.asp?m=2523621

Either the withdraw or disband button should be available for Air Groups with a withdrawal date.

The 'Withdraw by' listed for the Air group can have more than one meaning. The withdrawal is either permanent or temporary, which would relate to one or the other of the buttons.
Originally, the 'Withdraw by' text said 'Withdraw by' or 'Disband by', but the testers decided that this was too confusing.
Disband - that the pilot/planes went back to the pool (temp)
Withdraw - meant they were not (permanent e.g. Transferred to ETO).

Simple solution was to go with one text and whichever buttons were appropriate.

7.2.3 TRANSFERS:

http://www.matrixgames.com/forums/tm.asp?m=2558233

You can fly non-carrier capable planes from a carrier to a land base, but you can't operate them from the carrier.
That's handy when you want to use a carrier for a plane transport. You can launch a squadron into a contested base out of range of enemy land based air and scurry back home.

7.2.4 TROOP & SUPPLY TRANSPORT

http://www.matrixgames.com/forums/tm.asp?m=2483507

Air transport is handled fairly simplistically compared to ship transport.

Moving troops from base to base:
a) Can't move a non-squad or non-engineer device with a load cost >9

Air dropping troops:
a) Can't air drop a non-squad device with a load cost >7 or if none are ready

Common for ready devices:
b) Aviation support - 2 devices moved plus 2 more if a/c max load is 7500 or more
c) Squad or Engineer device type - 1 device moved plus one more if a/c max load is 7500 or more

Common for disabled devices:
d) Aviation support - 2 devices moved
e) Squad or Engineer device type - 1 device moved plus one more if a/c max load is 7500 or more

7.3 AIRGROUP RESIZING:

http://www.matrixgames.com/forums/tm.asp?m=2412310

Only carrier capable F. FB, NF, DB and TB groups can resize according to the first applicable condition below.

a) if only one group on the CVx, then new size is 9/10 of CV capacity.
b) if Japanese and ship type is CV or CVB and date is less than 7 months since Dec 1941, new size is 1/3 of CV capacity.
c) if Japanese and ship type is CV or CVB, new size depends on group type:

(i) type is F, new size is 0.375 times CV capacity.
(ii) type is DB, new size is 0.375 times CV capacity.
(iii) type is TB, new size is 0.25 times CV capacity.
(iv) any other type, new size is 0.13 times CV capacity.
d) if Japanese and ship type is CVL, new size depends on group type:
(i) type is F, new size is 0.6 times CV capacity.
(ii) any other type, new size is 0.4 times CV capacity.
e) if British, new size depends on group type:
(i) type is F, new size is (0.6 times CV capacity) divided by number of fighter groups on board.
(ii) if more than one fighter group present and any other type, new size is (0.4 times CV capacity) divided by number of non-fighter groups on board.
f) if Allied and ship type is CV or CVB and capacity >99, new size depends on group type:
(i) type is TB, new size is 0.132 times CV capacity.
(ii) any other type, new size is 0.28 times CV capacity.
g) if Allied and ship type is CV or CVB and year<44, new size depends on group type:
(i) type is F and date is less than 7 months since Dec 1941, new size is 0.3 times CV capacity.
(ii) type is F, new size is 0.4 times CV capacity.
(iii) type is DB and year<43, new size is 0.2 times CV capacity.
(iv) type is DB and year=43 and one DB group present, new size is 0.4 times CV capacity.
(v) type is TB and year=42, new size is 0.17 times CV capacity.
(vi) any other type, new size is 0.2 times CV capacity.
h) if Allied and ship type is CV or CVB and year>43, new size depends on group type:
(i) type is F and date is less than 31 months since Dec 1941, new size is 0.45 times CV capacity.
(ii) type is F and date is less than 37 months since Dec 1941, new size is 0.47 times CV capacity.
(iii) type is F, new size is 0.4 times CV capacity.
(iv) type is DB and date is more than 36 months since Dec 1941 and more than 3 groups present, new size is 0.17 times CV capacity.
(v) type is DB and date is more than 36 months since Dec 1941 and more than 3 groups present, new size is 0.17 times CV capacity.
(vi) type is DB and date is more than 30 months since Dec 1941 and less than 4 groups present and one DB group present, new size is 0.36 times CV capacity.
(vii) type is DB and date is less than 31 months since Dec 1941 and less than 4 groups present and one DB group present, new size is 0.38 times CV capacity.
(viii) type is TB and year=45 and more than 3 groups present, new size is 0.17 times CV capacity.
(ix) any other type, new size is 0.2 times CV capacity.
i) if Allied and ship type is CVE and date is greater than 28 months since Dec 1941, new size depends on group type:
(i) type is F , new size is 0.71 times CV capacity.
(ii) any other type, new size is 0.3 times CV capacity.
j) if Allied and ship type is CVE or CVL , new size depends on group type:
(i) type is F , new size is 0.7 times CV capacity.
(ii) any other type, new size is 0.3 times CV capacity.
k) anything else, new size is CV capacity / number of groups

7.3.1 – DETACHMENTS:

http://www.matrixgames.com/forums/tm.asp?m=2356118

Carrier Air Group Fragments:
Air groups fragments don't swap with parents like LCUs.
Once the parent is killed, the fragments are just that..fragments
Disband to pool to add planes and pilots back to the pool.

One disbanded you can buy back the unit through the destroyed air unit list:

Go to the Intelligence Screen (hit the 'I' key).
Click on 'Aircraft Losses.'
Click on List 'Destroyed Air Groups.'
Right click on the unit you want to reconstitute.
The air unit will be placed in the reinforcement queue to arrive in about a year.

7.4 AIR COMBAT - CAP/A2A COMBAT/MISSIONS:

http://www.matrixgames.com/forums/tm.asp?m=2197900

Leaders for each squadron, these can have a real impact if they make their various rolls.
Weather for the combat can affect engagement and losses on both sides.

If set to SWEEP at 100' they will strafe. If set to AF attack they will strafe and Drop bombs.

CAP is coded to try to get to the bombers. If CAP is numerically superior to the ESCORT a number of flights MAY be temporarily reserved for the Bombers. In other words they can get right past the Escort because an appropriate number of CAP have already been allotted and engaged the ESCORT. In effect CAP divides itself (based on LDR rating, and other PFM factors) and goes after the bombers.

Why is this important?

I see many of you setting CAP to 60, 70, or even 90%! I can understand the desire, but consider this: The CV is the offensive arm of the Navy in WWII. What use is it if the striking force is insufficiently protected and savaged by an equally large enemy CAP?

You need an escort that is capable of getting the most Strikers to the target as possible. That, after all is the whole point of the Carrier gents!

This dynamic is what made Coral Sea and Midway such compelling battles, as it was always game of balancing offensive capability and numerical superiority/inferiority against the defensive game.

RAID/ESCORT CO-ORDINATION

Remember, RAID COORDINATION is set by the player by setting ESCORTS to the SAME ALTITUDE. If you want to tell the code to TRY to COORDINATE different Air units in the same raid set them ALL to the SAME altitude. The code will do the rest.

RUNNING COMBAT MISSIONS FROM CVE

http://www.matrixgames.com/forums/tm.asp?m=2267701

1. Set the mission for your CVE's to Air Combat.
2. Ensure they are not overloaded (ie only use one Sqn of 28 or split Sqns such that the CVE capacity is not exceeded).
3. Set all similarly equipped Sqn's within ferry range to no replacements, including the other VR groups! This stops replacements getting taken off them.

ESCORT/SWEEP TACTICS

http://www.matrixgames.com/forums/tm.asp?m=2271929

Send in fighters at their best altitude to clear AF before you send in the Bombers.

SWEEPS are intended for the SWEEPing fighters to SWEEP the defending CAP from the skies...not to conduct an AIRFIELD ATTACK at 100'.

Setting a portion of a would be ESCORT to SWEEP does not guarantee that the SWEEP will be conducted BEFORE the raid those A/C would otherwise be escorting. This is obviously the intent, when sweeping, but coordination is a key factor in whether SWEEPs are flown before, during, or after the strike....or even at all! You STILL need to consider forecasted weather, leader ratings of all units involved, basing (co-location helps, and distance between coordinating units does not!).

If you are setting units to sweep from a large AF with all participating units there, an Air HQ with a Decent Air commander, good weather and short distances to the target in question, these factors will be the best case for a well coordinated, sweep of an enemy Hex.

If you are having trouble, try to achieve as many of the things as you can above, OR consider prepping the battlefield, by sweeping with strong Fighter units BEFORE you attempt a sustained Air campaign against well defended targets.

7.4.1.1 AIR UNITS –RADAR:

http://www.matrixgames.com/forums/tm.asp?m=2251019

While radar can have a range in excess of the 40NM hex, it does not extend outside the hex.

Instead, if the radar has a range of more than 40NM, it gets a number of extra chances to detect the raid equal to the number of hexes it could have reached. (range of 120NM would get 3 chances to detect raid, while a 40NM radar only the one).

Radar detects Airplanes. The longer the range the sooner it does so. The higher the effect the more accurate the data and the better your CAP will perform. There really isn't much more to it.

7.4.2.3 - KAMIKAZE:

http://www.matrixgames.com/forums/tm.asp?m=2617899

Kamikaze Activation
Base must have an AF 1+. This would exclude the 'dot' bases unless they are built up.
There is no limitation such that the base has to have been occupied by the Japanese and re-captured.

If the base is in range (21 sea hexes) of TOKYO (base #252), TAKAO (base #330) or SAIGON (base #435), is not located in China/Tibet and controlled by Allied player and 1944+, then the kamikazes (converting groups to kamikaze mode,as distinct from the occasional plane turning into a kamikaze prior to 1944 due to damage) are activated

8.0 - GROUND UNITS:

http://www.matrixgames.com/forums/tm.asp?m=2239994

Rest mode does not train unit xp.
Prep has to be 100, op mode has nothing to do with it.
You'll get your best exp gain from combat.

In order for a HQ to be rebuilt it must not be:
KNIL Army Command
USAFFE
Malaya Army
Asiatic Fleet

'AND' HQ can not be permanently restricted.

Command Radius 1 = One hex from the HQ.i.e. Hex HQ is in and all 6 Hexes around.

Movement rates in manual are for "Move" opmode.

While a LCU is in strategic mode UNPACKING which takes 1-3 days, the unit can still move towards the new target in MOVE or COMBAT MODE without having to wait until unpacked.
This is intentional, while unpacking the unit is still very vulnerable. This simulates pure infantry grabbing weapons and ammo then marching while the rest of the unit unpacks and will catch up.

http://www.matrixgames.com/forums/tm.asp?m=2267892

some units (CD guns) have a * in it's name.
* means that is the device that makes this unit static.

http://www.matrixgames.com/forums/tm.asp?m=2219798

Repair of Disabled squads benefit from Rest Mode (use Reserve Mode if Enemy in Same Hex, reserve will be forced if enemy enters hex), plentiful supplies and Admin skill of leaders.
Replacements require > 2x Base Supply Requirements

8.1.1 HEADQUARTERS:

http://www.matrixgames.com/forums/tm.asp?m=2331661

Command Headquarters -
• If no Corps HQ is in range, then Command HQ acts as a corps HQ (see below).
• If there is a Corps HQ present, and the Command HQ is within 2x its range, it provides a bonus of up to 90% of the Assault Value of attacking units.
• The Land Skill and Inspiration ratings of the command HQ commander modifies the bonus, so the higher the ratings, the better.
• All Command HQ have lots of support squads and some have motorized support squads, so they help reduce fatigue and disruption for units in the same hex.
• Some Command HQ have aviation support squads, so they can provide support to air groups (Japanese: 5th Command; Allied: Southeast Asia, Far East, and CCAHQ)
• Some Allied Command HQ have naval support squads, so they can load/unload/rearm ships (North Pacific, Pacific Fleet, South Pacific, and Southwest Pacific)
• Command HQ at a properly supplied base, can act as a source of replacements for Air Groups (with 20k supply present, if within range of the Air Group, Group gets replacements, if out of range, sub-unit is created at the Command HQ base... There are other ways for Air Replacements to happen)
• Command HQ at a properly supplied base, can act as a source of replacements for Air Groups
• Command HQ stockpile supplies and draw supplies through overland movement rapidly to their location. This can be useful for drawing supplies to an inland base.
Army Headquarters -
• Helps with ground combat. Ground units in range can gain up to a 10% bonus to their Assault Value (whether attacking or defending).
• The Land Skill and Inspiration ratings of the Army HQ commander modifies the bonus, so the higher the ratings, the better.
• Army HQ have lots of support and some have motorized support squads, so they help reduce fatigue and disruption for units in the same hex.
Corps Headquarters -
• Helps with ground combat. Ground units in range can gain up to a 10% bonus to their Assault Value (whether attacking or defending).

• The Land Skill and Inspiration ratings of the Corps HQ commander modifies the bonus, so the higher the ratings, the better.
• Corps HQ have lots of support and some have motorized support squads, so they help reduce fatigue and disruption for units in the same hex.
Amphibious Force Headquarters -
• Helps amphibious invasions suffer fewer losses. Invasions land faster with less disruption.
• They must be loaded in an AGC and present in the invasion hex.
• Amphibious Corps HQ are not Amphibious Force HQ. They are just Corps HQ.
• Amphibious Force HQ do not function as a Corps or Command HQ.
• Amphibious Force HQ have lots of support squads, so they help reduce fatigue and disruption for units in the same hex (but you probably don't want to off-load it for this purpose).
• Land Skill of the HQ Leader modifies the effectiveness of the HQ.
Naval Headquarters -
• Helps to speed ship repair time.
• Good to have in a base that perfoms a lot of repair, but potentially useful in a forward base used for rapid repair or a repair near combat to save badly damaged ships.
• The qualities and skills of the HQ leader has no influence or bearing on the HQ function, so a Naval HQ is a good place for your stupidist, most incompetant admirals to become heros.
• Most Naval HQ have naval support squads, so they can load/unload/rearm ships
• Some Naval HQ have support or motorized support squads, so they help reduce fatigue and disruption for units in the same hex.
Air Headquarters -
• Helps by allowing more aircraft to fly and allows more air units to be based at a base with this type of HQ, coordinating aircraft replacement/upgrades and supporting more groups at a base.
• Air Group stacking at a base is improved by Air HQ. The best Air HQ of the same command as the base which is within range can add its command radius to the number of groups that can be administrated, or if not in the same command, the nearest HQ will add ½ its command radius to the number of groups. Important note: for this to work, the base and the Air HQ must be attached to the same command.
• Level bombers not located within an air HQ's Command Radius will have their number of planes flying reduced by 25% for Offensive Missions.
• Air HQ have aviation support squads, so they can provide support to air groups
• Most Air HQ have either support or motorized support squads, so they help reduce fatigue and disruption for units in the same hex.
• All other air strike Missions by units outside an air HQ's command radius will have the flying planes reduced by 10%.
• Not sure if any of the leader qualities matter...

8.2.1 Unit Information Screen:

If a unit is broken down all pieces of the unit have to be assigned to the same HQ in order to combine them.

Benefits of Disbanding Units:
http://www.matrixgames.com/forums/tm.asp?m=2324055&mpage=2&key=

Yes if a unit is manually disbanded at a key city (Delhi/Sydney/Tokyo etc) then all the active devices in the unit are sent to the pool and you have the option of the empty shell unit returning in 6 months.

Be careful you only get 50% of the disabled devices.

It costs 0 VP's if you do it at a key city to allow reorgs to (despite what the screen says)

If you do it under the this base has 200k supply plus a command HQ rule then you pay a VP penalty (this stops for example disbanding the Malayan garrison if you get Singapore to 200k supply)

This is really useful because a lot of allied units start under strength and pool sizes are small and replacements low in 42 sometimes I am tempted to disband an entire Div on day 1 for replacements but I usually talk myself out of it on the grounds that it takes so long to rebuild - a Bn or a Bde on the other hand can be rebuilt quite quickly.

8.4 - GROUND COMBAT:

The first unit in the stack will normally be the unit that gets the worst of it. The stack of defenders and attackers is randomized, but usually the first units will be the line Combat units. We don't calc the total effect and then spread across all units, it done on a unit by unit basis - For bombardment and fire phase the 1st attacking unit fires at the first defending unit then the next until it runs out of shots. Defenders fire back using similar procedure. Assault phase we add up the modified AV and compare, the manual gives an overview of this procedure

Broken down units are treated just like individual units. Strategy depends on the enemy and what you are trying to do. If I have 6 regts, I could assault with 4 and put 2 in reserve and rotate as needed. One thing to keep in mind is modified AV is calc per unit so if you have mediocre exp and leaders then keeping the units broke down might mitigate some bad die rolls, but I'm not real sure what best way is, it is up to you.

River Shock Attacks

If you cross a River hexside that you do not control you should always shock attack.

If you enter an enemy occupied hex across a River hexside that you control (ie you control both sides of the river)- your MODIFIED AV must be of a particular ratio to the enemy's MODIFIED AV to prevent the Shock Attack.

Net result - poor quality troops have issues maintaining a proper bridgehead because their MODIFIED AV is a lot lower than their RAW AV.

ZOC

You may only LEAVE a hex across a hexside you control. So if you enter an enemy's hex across all six hexsides the enemy is trapped in the hex.

http://www.matrixgames.com/forums/tm.asp?m=2551704

Assault collapses, survivors seek cover
The way ground combat works is there is a phase where the units shoot at one another, then the odds are figured. Most of the casualties happen during the shooting at one another phase, but the odds determine retreat, base capture, etc. I just remembered that the assault collapses was added for the situation when an attacker is wiped out by the shooting at one another phase. Odds can't be calculated because there is nothing left with which to calculate the odds.

http://www.matrixgames.com/forums/tm.asp?m=2522763

AV & Odds Calculations
Base" AV, is "Base" AV, is "Base" AV: each Type 23 Squad Device = 1, each Type 24 Eng Device (NOT 251 or 252 Engs) = 1, each Type 25 AFV Device =1 : Calculator total is "Base" AV for the LCU. This is what is reported.

Firepower of Devices do not factor into AV. They factor in elsewhere. A halftrack flagged as an AFV = 1; a JS-2 or an M-26 = 1.

People get to shoot at people immediately prior to final combat odds determination and combat resolution. Firepower is supremely important in this phase. This is where the main internal data differentiation between a squad, a halftrack, and a JS-2 takes place.

The "survivors" get calculated into the final AV derived combat odds. Internally calculated "disrupted" elements don't get to play.

After all this, the final (relative) combat odds are calculated on the basis of the above and all the factors that Nik mentioned, including many, many die rolls (randoms). There are literally thousands of possibilities, so only salient die roll results are reported.

HINTS

The hit/death calculation will "mostly" disrupt a target device, but may well (random) kill it. If a hit whacks a disrupted device, it's a deader. Disruption, and death (random) results from defense firepower. Disrupted devices do not AV.

If you attack anyway, disrupted devices will be killed by superior firepower. So if you have a unit of Green Beanies, commanded by Joshua, but have a bunch of disrupted elements from something that happened previously, you will have some letters to write. You may 'win' on the 'odds' but you may 'lose' on the 'algorithm'

http://www.matrixgames.com/forums/tm.asp?m=2542576

Shock attacks work well against enemy units that do not have much firepower (shock-attacking troops are subjected to a second round of defensive fire). I wouldn't shock attack an entrenched enemy, who can put up a decent amount of firepower and is not disrupted, unless I'm considerably stronger. Or really, really desperate...

9.0 - BUILDING BASES:

Building (0),(0) bases to level 1 is supposed to be tough.

9.1 – BASE INFORMATION SCREEN:

http://www.matrixgames.com/forums/tm.asp?m=2538749

1000 is the maximum size of the DISPLAY LIST of the ships in port. There can be more in the port, they just won't display.

http://www.matrixgames.com/forums/tm.asp?m=2206908

Baloons
The Balloon effect is determined by maximum value of (a) plus (b) below. The overall maximum of the sum is 9.
(a) Balloons are present in a base if the AF + port > 6. The value is the fort level of the hex.
(b) Balloons can be added to a base/LCU by creating a device of type BALLOON. The value is the number of devices. [not currently in use]

They affect aircraft flying below 6000'.

Twin-engine or higher planes increase the number of balloons by 4.

Balloon level is not reported but is usually the fort level if the combined value of the base is >6.
Pilot experience should help to avoid balloons (except for the bug I just found which is not always using the right pilot!!!)

9.3 – PORTS:

http://www.matrixgames.com/forums/tm.asp?m=2532035

Docked ships do not benefit from base AA, only from TF AA

9.4 - AIRFIELDS - AF OVERSTACK:

http://www.matrixgames.com/forums/tm.asp?m=2219116

Quite simply, don't overstack, and there will be no restrictions. Conversely when you see your AFs are overstacked, just realize that your AF is not operating as efficiently as it might. That is a perfectly natural state for an AF.

If you are new to the game, these rules are not entirely new. Some of them existed in WitP before AE. We've just enhanced them a bit to temper Uber Air Operations. If you attempt to streamline ALL your AFs to maximum efficiency other AFs will likely become overstacked as a result.

There are some benefits to these restrictions. Units will not fly all their A/C (read pilots) all the time and their Fatigue will not suffer as a result. A more normal pace of ops will result than if unchecked.

From the manual:
If a base has less Aviation Support than is required, level bomber offensive missions are reduced by 25%.

- Aviation support isn't just the wrench-turners. It is an abstraction of all things needed to support a plane. Armorers, plane captains, crew drivers, fuel bowsers, ground support equipment, the list goes on and on. Of all types, Level bombers were the most support intensive. This is why this restriction exists. Support your Bombers properly(nothing new here) and it won't be an issue.

If an Airfield has too many aircraft (physical space) or groups (administrative) present, then the airfield is deemed overstacked. And is indicated by an '*' next to the airfield.
An overstacked airfield affects how many aircraft can be launched, casualties from attacks and aircraft repairs.

- Overstacked is not a curse word. It's a fact of life. Don't fixate on the "administrative" word. As designers we INTENDED for AFs to be overstacked. It was part of our effort to slow things down, and defang Air combat a bit.

A 9+ airfield does not suffer from overstacking.
Here is your out. If you can achieve this through any combination of AF building, and HQ manipulation you can be free of the overstacking rule and have a most efficient AF.

An example:

Saipan: Built to Size 4 AF with a 20th Bomber Command radius of 5 will give you a Size 9 AF. Overstack to your hearts content. No penalty. As long as the best Air HQ of the same command as the base which is within range can add its command radius to the number of groups that can be administrated, otherwise if not in the same command, the nearest HQ will add ½ its command radius to the number of groups. At which point you will NOT have a 9 AF and suffer restrictions.

An airfield can operate 50 single engine (or 25 two engine, or 12 four engine) planes per AF size or 1 group per AF size.

- It can also operate more than 50 per AF size or more than the number of groups = or greater than the AF size, but at a penalty. But as I have been trying to say the penalty is intended...

In addition, groups at rest or in training only count as 1/3 for the purposes of counting aircraft at the base, and don't count at all against the number of groups. Split groups only count as individual groups if they are attached to different HQs.

Here is how you mitigate the overstacking. Without juggling groups. Station 6 groups at a size 4 AF. Set 3 to rest and

voila! (1/3 + 1/3 + 1/3 on training + 3 groups on ops), you have four groups, but you haven't moved any groups out. Alternatively you could set them all to CAP or Naval attack and suffer a penalty, but all groups would fly some, most, but not ALL of their complement each phase. It might just be that even with the penalty you'll get more A/c airborne than standing down half your force! Think about it.

Remember if you are seeing something other than what you expect there are OTHER ways to restrict operations.

-Level Bombers have to pass 3 checks to fly all their non-overstacked complements. They are:

An experience test
A leadership test
A morale test in order to fly all of their planes

For each test failed, the number of bombers that fly the Mission will be reduced by 25%.

So, don't fly a 40 EXP Bomber unit with a crappy 25 Air Rating LDR, with Morale in the can, and you'll avoid these penalties.

Then there is this:
-If a base has less Aviation Support than is required, level bomber offensive missions are reduced by 25%.

So just because you are expecting to see one thing from your units when you solve the overstacking issue, doesn't necessarily mean you'll get all your LBA into the fight.

"Why are level bombers so roughly treated?" you might ask. Because they didn't operate from forward AFs that were just captured. Generally they operated from rear area bases that had natural or man-made buffers between them and the enemy. Generally. We are trying to limit the pace of Air operations. Somewhat restrictive rules for LBA was a key ingredient.

9.4.2 - BASE CONSTRUCTION/REPAIR:

http://www.matrixgames.com/forums/tm.asp?m=2211852

1. If you have any friendly ENG unit at base then you get a bonus ENG value of 5 to total eng value regardless of opMode.
2. Repairs are free but you must have ENG in Combat mode, however you do get the +5 bonus in spite of opMode so repairs might occur(just real slow) depending on base size.
3. Construction is not free and ENG must be in Combat mode.

10.0 - SPOTTING UNITS – SEARCHING:

http://www.matrixgames.com/forums/tm.asp?m=2186265

If you set your search arc 0 to 0 you search all 360 degrees but with PENALTIES.

Note that even if search arcs are set, aircraft will still do a full 360° search over a 4 hex range.

If you set your search arc smaller than 360 degrees then each individual plane will only search a 10 degree arc in each phase - morning and afternoon.

So If I have 6 planes searching... and i want to search 0 to 180.... I can't....as I can't cover everything unless I set the unit to search 360.

However IF I do set the unit to search the arc 0 to 180 this is what happens:

In the morning -

Plane 1 searches 0-10
Plane 2 searches 10-20
etc etc
Plane 6 searches 50-60.

Then in the afternoon -

Plane 1 searches 60-70
Plane 2 searches 70-80
etc etc
Plane 6 searches 110-120

So with six planes from a unit searching I can search 120 degrees in a given day but only 60 degrees in each phase....or I can have the planes search 360 degrees with penalties.

EDIT : IF you have more planes than arcs - each arc is given one plane, then the first arc is given two, and the second two etc...until all of the planes have been assigned.

EDIT EDIT : This only applies to searches of greater than 4 hexes.

Just another tidbit of information. The search arc is always from the first number to the second number. 270-90 would search from pointing straight left to straight right. The first search plane would be sent out at 270, the second at 280, etc.

http://www.matrixgames.com/forums/tm.asp?m=2263685

Blue is AM search arcs
Green PM search.arcs
The darker blue and green are naval search
The lighter ASW.
You only see what arcs will be covered if all your available planes fly, not what you've set. If your set search area is bigger than what the available planes can do, you will only see what can be covered. If you have a 12 plane unit set to 50% search, you will have 60 degrees covered in the AM and 60 in the PM.

The actual area covered might be less if you have one or more planes that break down or crash

11.1 – CHANGING LEADERS:

Leader Selection

			Leadership	Insp	Naval	Air	Land	Admin	Agg
Command	Combat	HQ		3 ↑AV			2 ↑AV	1↓FD	
	Rear	HQ						1↓FD	
Corps/Army	Combat	HQ		3 ↑AV			2 ↑AV	1↓FD	
	Rear	HQ						1↓FD	
Amphibious		HQ					1↓D↑U		
Naval		HQ							
Air		HQ				1↑#			
Air Combat		TF			3↑ST	1↑#			2↑R
Surface		TF			1↑ST	3↑FP			2↑R
ASW		TF			1↑SUB				
Bombardment		TF			2↑ST	3↑FP			1SCTF
Fast Transport		TF			1↑ST	2↑FP			
Transport / Replenishment		TF			1↑ST	2↑FP			
Mine		TF			1↑ST	2↑FP			
Escort		TF			1↑STSUB	2↑FP			
CAP/Offensive Air		Group	3↑XP	1↑#↑M		2↑A2A			
LB Offensive		Group	3↑XP	1↑#↑M		2↑#			
Patrol, Transport, Training		Group	2↑XP	1↑#↑M					
CV		Group	1↑XP		3↑T	2↑#			
ASW		TF	1↑XP		2↑T				
Combat		TF	2↑XP		1↑T	3↑FP			
Non-Combat		TF	1↑XP		2↑T	3↑FP			
SS		TF	3↑XP		2↑ASW				1↑T
LCU - Front Line			3↑XP	2↓FD↑AV			1↑AVXP	4↓FD	
LCU - Rear Area			1↑XP	3↑AV			4	2↓FD	
LCU - Refit			3↑XP	2↓FD				1↓FD	

KEY

↓FD	Reduce Fatigue & Disruption		↑ST	Increase Surprise, Cross T
↑AV	Influence Assault Value		↑FP	Float Plane Operation
↓D↑U	Reduce Disruption, Increase Unload Speed		↑SUB	Increase Chance of Finding Sub
↑#	Increase # of Aircraft Flown		SCTF	Chance to Convert to SCTF
↑R	Increase React Chance		↑#↑M	Increase # & Morale
↑A2A	Increase Air 2 Air Results		↑XP	Increase XP Gain
↑T	Increase Chance Locating Target		↑ASW	Incrase ASW Survival
↑AVXP	Increase AV, XP Gain, Firing Accuracy			

13.2.1 - RESOURCES/OIL/SUPPLY:

You shouldn't need to move oil around in US. Manufacturing industry uses fuel rather than oil now. The only places where you want oil is places with refineries. The game is also pretty efficient about shipping fuel, oil, resources, and supply across the built up rail network in the US.

Los Angeles has a lot of industry and may have a high "minimum required oil". I believe it is somewhere around 25,000. Bases will generally hold on to the minimum required values of oil and resource and not allow them to be loaded onto TFs.

Another factor in supply movement is the day of the week (which was also in WitP). On different days of the week,

different level of supplies can move. One day of the week has very high supply movement, and the other days are more restricted. If you're trying to move supply on the most restricted days, you won't see it go very far even by rail.

http://www.matrixgames.com/forums/tm.asp?m=2563344

Excess fuel at ports is defined as whatever is above 3 x requested amount.

14.1 - SHIP UPGRADES & CONVERSIONS:

http://www.matrixgames.com/forums/tm.asp?m=2489860

If a minimum shipyard size is specified, it must be present. No ifs, ands, or buts.

If a minimum shipyard size is NOT specified, the accumulated capacity of the port (by size), shipyards, repair ships, tenders (if appropriate) and naval support must offset the size of the ship.
i.e. A level 5 port an AR, no shipyard, and no naval support can only upgrade ships up to 18,800 tons.

If appropriate means the right kind of ships for the tenders. Subs/Sub Tenders, etc.

Capacity means a calculated value based on port size, shipyard size, amount of naval support, presence of repair ship(s) and tender(s). The exact formula used may not be in the manual and I am not authorized to publish it.

To upgrade bigger ships you need bigger ports or more facilities

14.2.1 - SHIP DAMAGE & REPAIR:

http://www.matrixgames.com/forums/tm.asp?m=2198001
http://www.matrixgames.com/forums/tm.asp?m=1922517

The two key elements are:
- getting System Damage down to zero, which means all the pumps will be working
- getting all the minor Flotation damage (which means actual water in the ship) out.
The major Flotation damage is effectively structural - holes in the hull, warped bulkheads, etc. Once all the minor Flotation is gone, it's assumed emergency patches are in place and that the rest of the ship is watertight.

With 0 System damage, at that point you have very good odds of getting her home.

There are a number of very low risk catastrophic events that can still happen when a ship has major flotation that high, but you should be fine as long as those don't happen and even if they do System damage at 0 gives you a fighting chance. I'd say on the way home stay fairly close to possible ports, just in case.

Remember to use "Cruise Speed" instead of mission speed.

It should be noted that "Minor" flood Damage is the difference between "Total" Flood Damage and "Major" Flood Damage.

If "Major" Damage equals "Total" Damage there is no "Minor" damage.

"Minor" Damage = Water
"Major" Damage = Structural issues

http://www.matrixgames.com/forums/tm.asp?m=2475541

An undamaged ship in a TF can assist in fire fighting on another damaged ship in the TF under certain circumstances.

http://www.matrixgames.com/forums/tm.asp?m=2262839

If you repair the minor damage at pier and then switch to shipyard or repair ship you get better utilization of those assets.

http://www.matrixgames.com/forums/tm.asp?m=2403619

Repair Ships must be disbanded into the port to provide repair assistance. The ships being repaired must also be disbanded into the port.

Repair ships in this regard are AR, ARD and also tenders providing repairs (as separate from other tender services). No supply is required to be aboard repair ships (or tenders providing repairs) and none is consumed by repairs.

Ammo ships, including tenders providing rearming, depend on the type of replenishment ordered.
If *Replenish From Port* is ordered, the ammo ships (and tenders) must be disbanded into the port. If *Replenish At Sea* is ordered, ammo ships (and tenders) must be in TFs in the hex.
Some of this was changed after the manual was released.
Ships doing rearming must have supply aboard and supply is consumed by the rearming.
In addition, the ammo ship/tender must have sufficient cargo capacity for the weapon being rearmed.

http://www.matrixgames.com/forums/tm.asp?m=2508182

There is a slight chance of crew casualties under certain circumstances which will reduce Ship XP
Ship must be heavily damaged and a random check passed. If this is what is happening, you should see messages in the combat events file.
Either:
Damage control parties trapped by fire
or
Damage control parties trapped in flooded compartment

The experience hit is significant as casualties to fire and flooding may include others than damage control parties.

For you to see this for multiple turns indicates a heavily damaged ship and some rotten luck.

14.2.3.5 NAVAL SUPPORT ASSIST:

http://www.matrixgames.com/forums/tm.asp?m=2476115

Naval Support can help surrounding hexes

Naval Support = Naval Support / (range + 1)
1 hex 1/2 NS
2 hex 1/3 NS
3 hex 1/4 NS
etc.

15.0 - LOGISTICS - TANKERS/FUEL:

http://www.matrixgames.com/forums/tm.asp?m=2213390

If you do some reading about the war, the Allies had a tanker shortage until 1944 and even then supply just kept up with

demand. Tankers are usually larger than regular merchant ships and require larger shipyards. The number of ship yards in the US which could build tankers were limited and many were building higher priority ships like cruisers and carriers.

At the start of the war, the Germans recognized the tanker shortage and sent their u-boats to the East Coast of the US in an attempt to force Britain out of the war by strangling the fuel supply. The u-boats focused on tankers moving from Texas on up to form up into convoys in Canada. The campaign was very successful, but Doenitz, fearing losing a significant number of u-boats far from home pulled back his boats before finishing the job.

The CVEs Sangomon, Santee, Chenago, and Suwanee were converted from Cimarron class AOs. They were much better CVEs than later built CVEs, but the shortage of AOs and TKs prevented any more being converted. The subsequent CVEs all had to be built on much smaller AK hulls. If the US had the capacity to build as many TK hulls as it wanted, all CVEs would have been built on tanker hulls.

So the tanker shortage is realistic. With some practice, you can get enough fuel to Oz to keep the war going.

A couple of things to keep in mind if you are doing a fuel relay. Make sure the intermediary ports are large enough. Fuel and supplies spoil if the levels are over the limit for the port size. Dumping large amounts of fuel in small ports will probably result in fuel loss due to spoilage.

Another thing to keep in mind is the time trade off between sending the tankers on one long trip vs the time taken to load and unload at intermediary ports. Some ships don't have the fuel capacity for long trips, so shorter trips, or mid-point refuelling are necessary, but thinking through the logistics can be important.

Making sure the destination doesn't get too crowded is also a factor. If you have too many ships trying to unload at one port, a lot of ships will sit there waiting to unload which could be time spent moving to the next port. Sometimes congestion may be inevitable. Historically Noumea had some huge back logs before they got the port facilities running right

And remember guys, you can part a (full) Tanker at a small port and use it as a gas station. Until it runs dry, that is.

http://www.matrixgames.com/forums/tm.asp?m=2523224

Fort and terrain affect both Port and AF supply hits effectiveness.
Random ground target selection was a change made during the development of AE.
This also means that more than one ground target may be hit during a raid - you see the 'Also attacking ...' messages in the combat report.

15.1 – SUPPLY OPERATIONS (AIR):

http://www.matrixgames.com/forums/tm.asp?m=2601194

The supply is distributed over the friendly units in the hex.
Currently the distribution seems to be heavy handed in that the first unit (IIRC) tends to get more of the supply. But the supply should be added to the units, not lost as far as I know.

Future change is to try to spread the supply out more so that the combat units get more than the support units.

[edit]
there is a random amount (up to 1/10) that is lost when supply is unloaded from ship over the beach

There is code to 'borrow' excess supply from friendly units in the same hex during the Supply phase if an unit has supply in excess of twice it's requirements.

If a friendly base is present, then the excess goes back to the base so any unit can then draw from the base. This is how the excessive supplies that are unloaded over the beach into the LCUs are treated, once the enemy base is captured.

http://www.matrixgames.com/forums/tm.asp?m=2483507

Air Transport Supply:
Supply amount is a/c max load divided by 2,000 with a minimum of 1.

So a big Dakota, load capacity = 10,000 / 2,000 = 5 supplies are delivered.

If the squadron has 16 planes and all of them manage to fly => 16 x 5 = 80 supplies are delivered by that squadron

This is removed from the source and added to the destination unless air-dropped where a random value is added to the destination.

http://www.matrixgames.com/forums/tm.asp?m=2532152

Monsoon:
On the base screen beside Supplies if the base has a supply cap then you'll see the max supplies per day that can be drawn to it which includes monsoon effect if any.
Monsoon only applies to bases with a max draw which can be increased.

Base Max draw x (port + af + forts) and during monsoon / 2 = what is displayed on screen.

Monsoon (May 15 to October 15) is only for bases that have max draw.

http://www.matrixgames.com/forums/tm.asp?m=2324055&mpage=2&key=

Burma Logistic/Supply Operations:

Outside of the monsoon Imphal has a base rating of 600 tonnes of supply per day at present (in monsoon) so about 1200 outside of monsoon or say 30,000 per month to be safe - air and garrison/construction forces etc take about 5,000 per month of that allowance so that leaves me with 25,000 per month for combat ops

An allied 'Div on combat ops uses about 4,000 tonnes of supply per month excluding wastage and loss the further from my supply head I get.

So operating in Imphal itself I could supply say 3 Divs plus supporting HQ, Arty etc and still be building up a small reserve....over time (after the monsoon)

Or 2 Divs with no support during the monsoon...

Every hex I move away from Imphal will increase my wastage the first hex not to bad because of a road but my rule of thumb is 50% per hex thereafter for Jungle hexes so Imphal to Katha has 2 horrible hexes with no road and a major river

so 4000 x 150% x 150% = say 9,000 supply per month per Div so post monsoon with no additional Corps troops or garrison forces I could operate 3 Divs on the Assam front with no margin for error....ummm

I dont like that.

Therefore I will divert a little more engineering assets to Imphal to try and get the AF up another level as it will add another 150 per day supply to that base and I will allow the 'TOE Downgrade' of 17th Indian Div to happen which lightens the Div reducing its supply usage

Base Supply Limitations on Base Info Screen:

It was added in patch 3 I think so it wouldn't be in the manual

It only applies to bases in North Australia and North Burma/South Assam and it depends on the road/rail/river network in the area as calculated by me p.s. its all in the editor and changeable

I would have loved to extend it to China but we ran out of time for testing and doing it in Burma and North Aus was the critical locations

Andrew is always talking about refining it and his method certainly sounds better but for now broadly bases have a base level of 50 tonnes per day per development level the base level goes up depending on how many and the quality of the road/rail/river network near the base. Its a bit of educated guess work from me mostly

My recollection and I don't have my files in front of me

was it was 50 per day for a secondary road, 100 for a primary road (higher only applies)
rail was 100 for a minor, 200 for a major, navigable river was 50 - 100 I think.

So take Dimapur which has 2 minor roads a major road and a minor railway

It should be 50 per day (base) + 100 for a minor railway + 100 for a major road + 50 for a separate minor road so that one should be 300 per day base
Ledo has a minor railway 2 minor roads and a river so I think I set it to 300 as well giving it credit for two separate minor roads because they both went to a supply head via different hexes
Imphal has 1 major road so that's a 50 + 100 per day allowance

1. Chinese Armies not in supply they get what they can...
2. Imphal thrust

Imphal can supply 150 x 7 at present so about 1050 per day or about 30,000 per month at peak.
Silchar can supply about 250 x 8 or about 2,000 per day or 60,000 per month but its one hex further away so lets allow a 50% wastage to that bases contribution

So a max supply on the front fo 60,000 per month

Take off say 10,000 for air and construction etc

So a rough number I can work with is 50,000

An allied 'Div on combat ops uses about 4,000 tonnes of supply per month excluding wastage and loss the further from my supply head I get.

So operating in Imphal itself I could supply say 8 Divs plus supporting HQ, Arty etc and still be building up a small reserve....over time (after the monsoon)

Or 4 Divs with no support during the monsoon...

Every hex I move away from Imphal will increase my wastage the first hex not to bad because of a road but my rule of thumb is 50% per hex thereafter for Jungle hexes so Imphal to Katha has 2 horrible hexes with no road and a major river

so 4000 x 150% x 150% = say 9,000 supply per month per Div so post monsoon with no additional Corps troops or garrison forces I could operate 3 - 4 Divs on the Assam front with a little capability to allow a small AF to operate in

Burma and some supply for the Chinese

I wouldn't take the admin risk of much more for on this front.

15.2 – NAVAL SUPPLY:

http://www.matrixgames.com/forums/tm.asp?m=2336935

I'd recommend that the AKEs be loaded in some rear area port, then move to a forward port and disbanded. TFs could then come to that port and rearm using *Rearm From Port*. The presence of the AKE would allow rearming in excess of the abilities of the port, as well as transfer of "ammo" to AEs.

Exact same thing for Tankers (and oilers).

Thist was done historically - ships carrying ammo and fuel but not capable of underway replenishment were positioned at advance bases so TFs could replenish there.

http://www.matrixgames.com/forums/tm.asp?m=2474050

Forward Sub Ops Base Setup:
- AS loaded with Supply
- Naval Support to help with reload
- AS Can also repair subs, AR can augment this.
- Optimal setup for new small base: AS, AR + TK *disbanded in port*
- Use *Replenish From Port* You must have fuel in the port or the button will be greyed out.
- More AS (and AE/AKE) = more ops points = more Subs replenished per turn.

16.0 - AIR REPLACEMENTS:

'Replacements Delayed'

You've drawn replacements within the last 7 days, and have to wait for a week after you did so to do so again.

With the maximum number of replacements limited to 12 at a time, filling a large group can take a while.

http://www.matrixgames.com/forums/tm.asp?m=2536528

You should see something like this in ops report:
Delayed planes for the aircraft pool:
5 (4) x A5M4 Claude, 2 (0) x Ki-27b Nate

The 5(4) shows that 5 arrived in pool today and 4 still to arrive.

16.3 - PILOT REPLACEMENTS/TRAINING:

http://www.matrixgames.com/forums/tm.asp?m=2317995

I can't speak to the specifics of your game (losses and such), but EXP is not meant to increase at all due to TRACOM. EXP will generally remain at the National average.
Why? Because their training is done. The TRACOMs all have a fully trained "standard". In other words after a year or so of training the IJNAF expects a product that meets minimum requirements to move on to Combat planes. That is the national average you see.

HOWEVER...when your losses become excessive and you begin to dip into your reserves, the additional pilot instructors

providing that extra "oomph" are there to hold up your National average, or following a dip in average EXP due to a lost war you might re-establish the National Average after seeing a precipitous drop.

EXP is NOT meant to ever go higher than the National Average. Only be maintained or the rate of replacements accelerated to fill holes in operational units. That is the Spirit of the TRACOM.

Once replacement pilots leave the TRACOM, further training must occur on map.

http://www.matrixgames.com/forums/tm.asp?m=2618975

Pilots 'classification' is always updated based on the current plane type just BEFORE he gets reassigned.

There is an EXP hit to the pilot when being ASSIGNED to a group flying a different plane type (e.g. fighter pilot assigned to a patrol group) of about 10-20%.
His skill set isn't affected just his general flying experience

http://www.matrixgames.com/forums/tm.asp?m=2168708

If you change the commander of an air unit, there is usually a delay of a day or more for the new commander to arrive. When he does, you get the message that the old leader is now free for reassignment.

http://www.matrixgames.com/forums/tm.asp?m=2472496

Training Naval Air Units:
Starting in late 42 you start getting CVEs with VR squadrons. These squadrons are ahistoric, but are a carry over from WitP and are necessary for the AI to work properly.

I unloaded all my VR squadrons in ports and set them to train 100% for the mission the plane flies. As pilots get up to good skill levels, I move them to the reserve pool and replace them with green pilots. By mid-1943 I had a constant stream of trained pilots in the USN pool. The empty CVEs are useful for plane ferries or you could put USMC squadrons on them. In 1943 you start getting some VC squadrons that aren't assigned to carriers and when the SBD-5 becomes available the inshore patrol squadrons (shore based Kingfisher squadrons) can upgrade to SBD-5s which can be put on carriers.

The now shore based VR squadrons will still fill out carriers that come within range needing replacement aircraft. I have the VR squadrons in most of the ports I use for CV operations.

Catalina sqns can Train USN Torpedo skills.
Kingfisher sqns can Train USN Dive Bomber & Fighter Skills (Sweep Trains Fighter skills)

Training maxes out at 70 (very rarely can go above) and pilots gain experience slower as they approach 70. Getting into the 50s is easy, then it will be a slower learning curve to 70

http://www.matrixgames.com/forums/tm.asp?m=2317995

There is some behind the scenes action with training of raw pilots and TRACOM.

The number of TRACOM guys can increase the month's EXP rating of the raw pilots.
If the new EXP exceeds the national EXP, then a random number of pilots will 'graduate' early.
When this happens, you get a message "instructors accelerate training of" in the operation report.

In general, this jump is only going to occur in the last month of training, unless you add a huge number of pilots to TRACOM.

A rough guide is: for every 10 in TRACOM (of the correct nationality), the monthly EXP might be increased by one.

Adjustments to the pilot training happens on the first day of the month.
The monthly EXP increase of the raw pilots (ignoring TRACOM effect) is a random amount (-2 to +2).
The new monthly EXP starts out as an average of the pilots in the month and those moving from the previous month.

16.4.1 – GROUND UNIT UPGRADES:

http://www.matrixgames.com/forums/tm.asp?m=2291760

The only time an op mode is required (rest) is for TOE upgrades, this is when a units entire TOE is replaced with a new TOE. This has nothing to do with device upgrades.

Some forces end up with much lower establishments some end up a lot lighter as they shed heavy mot support and some arty to better junglify them.

http://www.matrixgames.com/forums/tm.asp?m=2243890

OVERSTRENGTH

Now as a complication if the new TOE of a unit doesnt use devices that were in the old TOE.

e.g. Australian Armoured Regts start out with a weird barely Sqn sized TOE including Bren Sections

The TOE upgrade removes those Bren sections and gives them proper Armoured Sqns.

In those case the new Armoured Regt TOE has an entry of 0 x Bren Sections that is there to tell the computer when the TOE of those units changes send any Bren Sections back to the pool.

If I have not put in Bren Section 0 into the new TOE the AI would have used those sections to overstrength the unit.

If the computer does not know what to do with a device it leaves it with the unit but sticks it at the bottom as a non TOE overstrength addition.

TOE / DEVICE UPGRADE EXAMPLE

So lets take 8th Australian Div's infantry

22nd Aus Bde starts with AIF Sections that upgrade to AIF 42 Sections
27th Aus Bde starts with AIF Sections that upgrade to AIF 42 Sections
Bird Bns all start with CMF Infantry Sections that upgrade to AIF 42 Sections.

Squad type devices are different from ordinary devices because they are mostly manpower and changes int hem mostly reflect changes in small arms or support weapons.

Therefore when a Squad device upgrades the same number of devices is returned to the pool UPGRADED - so when the CMF Infantry Sections upgrade to AIF 42 Sections they return to the pool as AIF 42 Sections - its how we got round the allied squads never having enough to replace combat losses AND upgrades without making squad pools so large as to be effectivelly meaningless.

IF you recombine units with different types of device that should all technically be in the same slot - e.g. AIF and CMF Infantry Sections the computer picks the largest to take the device slot and treats the rest as over strength non TOE additions.

So lets tyake the example above

Assume you manage a full sir Robin each AIF Bde has 108 AIF Sections and the Birds havwe 108 CMF Sections and you press the combine button

What happens is you get 8th Aus Div with 216 AIF Sections int he top inf slot and 108 CMF sections as non TOE additions at the bottom.

Lets say the unti sits tight for 6 months and squads all upgrade you end up with 216 AIF 42 Sections on top and 108 AIF 42 Sections on bottom.

Turn replacements on and it will suck up repalcements as normal until de facto the Div is overstrength by a Bde worth of Infantry.

Not good because you are short of replacements.

Now fortunately the 8th Australian Div gets a TOE upgrade to lighten it in September 42 at that point even if you have overstrengthed the Div to 432 Squads via this mean (324 TOE plus the extra 108) the TOE upgrade says all I need is 324 AIF 42 Sections so when that upgrade happens to the TOE the extra will be cleared out and the units strength normalised again.

Step 1 the TOE changes, Step 2 the computer goes down the list of actual devices the unit had and tries to fit them into its new TOE and it will look backwards in a Device upgrade chain

So in this case

the AI would say I want max 2 x 6 pounders - the unit didnt have any of those but oh look it had 10 x 2 pounders - the 2 pounder upgrades to the 6 pounder so I can use those so I will take 2 of the 2 pounders and put them in that slot and return the other 8 to the pool.

10 2 Pounders and 10 25 pounders

after date Y if in rest mode and near an HQ the TOE changes to 2 x 6 Pounder and 24 x 25 pounder.

http://www.matrixgames.com/forums/tm.asp?m=2243890

Devices (like squads) upgrading, can only occur if you have the LCU set to Replacements=On.
To control it you can shut Off Replacements to all other LCU's and leave them On for the LCU you want to upgrade first.

TOE Upgrades:
- Unit in Rest mode
- Friendly Base Hex
- In Range (2 x Command Radius) of a Command HQ

http://www.matrixgames.com/forums/tm.asp?m=2557877

For a non-squad and non-engineer devices, you need 1.5 times the number of devices to be upgraded in the pool.

18.0 SPECIAL RULES – AI:

The AI ignores HQ restrictions.

http://www.matrixgames.com/forums/tm.asp?m=2266051

To remove variants that include AI exploitation attacks

delete aei00x-007 to aei00x-12 files from scen sub folder.

That will guarantee a game where the AI sticks to a historical expansion plan (if not in timing)

There are 13 AI files 7 are all variants of a bog standard game 6 have the AI going beyond strategically.